

- PN-ACT-831 -



TALULAR

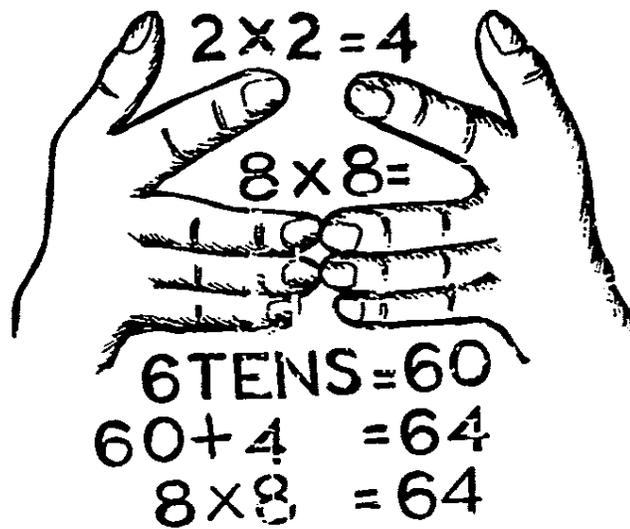
TEACHING AND LEARNING USING LOCALLY
AVAILABLE RESOURCES

A USER'S GUIDE

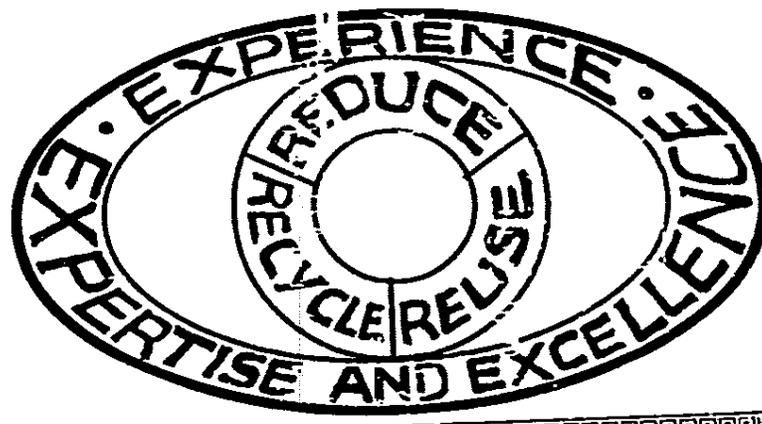


TALULAR

A TOOL FOR IMPROVING EDUCATIONAL QUALITY



Teaching And Learning Using Locally Available Resources



ACKNOWLEDGEMENTS

The authors are indebted to many people for helping in the preparation and publication of this TALULAR Manual. In particular, we wish to thank Dr Jane Schubert of American Institutes for Research (AIR) in Washington DC, the Director of the Improving Educational Quality (IEQ) project, for her encouragement and facilitation of publishing.

We are especially grateful to Dr Shirley Miske of American Institutes of Research for reading parts of the draft and giving them their shape. Also, we wish to express our sincere gratitude to our colleagues, teachers and headteachers who cooperatively allowed us to observe lessons and discuss use of TALULAR relevant to the development of this Manual, during school visits in connection with the Continuous Assessment Feasibility Study in Ntcheu district, Malawi.

Lastly, but not least, we are very grateful to Mrs Lucy Kalua Chisambi who worked tirelessly and put this work together.

Andy Byers
Gibson H. Zembeni
May, 15th 2003

This collection of TALULAR materials has been developed and implemented by Gibson Zembeni, Andy Byers and other creative colleagues. The Improving Educational Quality (IEQ) Project team recognized the importance of expanding the outreach of TALULAR within the international community so as to empower teachers with the knowledge of converting their external environment into learning resources for their classroom environment. This collection of materials is now available to potential users.

This resource has been made possible through the talents of Ms. Charmaine Llagas, an IEQ team member at AIR, who sifted through the collection and organized the material into a "user-friendly" manual. Thank you Charmaine and thank you to the creative minds and hearts who produced these ideas.

Jane G. Schubert
American Institutes for Research
July 2003

Table of Contents

	Page
Acknowledgements	i
Unit 1: What is TALULAR	1 - 1
The meaning of TALULAR	1 - 1
Types of resources	1 - 3
Further ideas about TALULAR	1 - 9
Purpose of using TALULAR	1 - 10
The TALULAR challenge	1 - 10
The child's tools of learning	1 - 15
Banking education vs. participatory approaches	1 - 18
Unit 2: Principles of TALULAR	2 - 1
Quality education	2 - 1
Good teaching	2 - 2
Good learning	2 - 2
Creativity	2 - 3
Motivation	2 - 3
Variety	2 - 5
Productivity	2 - 5
Transformation	2 - 5
Continuous Assessment (CA)	2 - 5
Cost-effectiveness	2 - 6
Sustainability	2 - 6
Success	2 - 7
Unit 3: The community, a TALULAR resource for the school	3 - 1
The school, a TALULAR resource for the community	3 - 1
The community, a TALULAR resource for the school	3 - 2
What can a teacher do?	3 - 5
Unity in cultural diversity	3 - 6
Community support to schools	3 - 9
Community schools	3 - 10
Unit 4: Drawing skills, a TALULAR resource for classroom communication	4 - 1
The meaning of drawing	4 - 1
Using the drawing alphabet	4 - 3
Drawing other things step by step	4 - 3
Drawing action matchstick figures	4 - 12

Drawing and shading	4 - 13
Developing complete human figures from matchstick figures	4 - 15
Adding colour	4 - 15
Resources to support the process of producing TALULAR paints	4 - 17
Making TALULAR paints	4 - 20
Unit 5: Designing, developing and using TALULAR	5 - 1
Design ideas	5 - 1
Stages in the design process	5 - 2
Symmetry and asymmetry	5 - 8
Design elements	5 - 8
Using colour in a design	5 - 9
Advantages of designing and producing your own TALULAR	5 - 13
Drawing teaching methodology	5 - 14
Unit 6: TALULAR for developing numeracy	6 - 1
Use of TALULAR in numeracy development	6 - 1
Activities that promote number work	6 - 4
Care when using TALULAR in a form of realia	6 - 5
Prototype or sample TALULAR for teaching numeracy	6 - 8
Using the hand to introduce zero and one	6 - 31
TALULAR for teaching about money	6 - 33
Unit 7: TALULAR for developing literacy	7 - 1
Prototype TALULAR for literacy development	7 - 1
Unit 8: Lettering	8 - 1
Lettering instruments	8 - 1
Some ideas about lettering	8 - 2
Changing from print to cursive	8 - 9
School handwriting policy	8 - 9
Unit 9: TALULAR techniques and aids for chalkboard work	9 - 1
Effective use of the chalkboard	9 - 1
Dos and don'ts associated with using the chalkboard	9 - 2
TALULAR technical chalkboard aids	9 - 2
Unit 10: TALULAR for continuous assessment	10 - 1
What is continuous assessment?	10 - 1
Procedures or methods used in continuous assessment	10 - 3

TALULAR resources for continuous assessment	10 - 3
Prototype TALULAR for the Malawi Continuous Assessment Feasibility Study	10 - 5
Alternative TALULAR resources	10 - 12
Some learning may not do well in continuous assessment	10 - 14
Building teacher competence for continuous assessment	10 - 15
Unit 11: TALULAR for teaching about HIV/AIDS	11 - 1
Prototype TALULAR for teaching about HIV/AIDS	11 - 2
Communities	11 - 9
Designing TALULAR resources for teaching about HIV/AIDS	11 - 9
Producing some TALULAR resources for teaching about HIV/AIDS	11 - 11
Using TALULAR resources for teaching about HIV/AIDS	11 - 13
Venues in the school where HIV/AIDS can be taught	11 - 16
Unit 12: Teachers' resource centre	12 - 1
Classification of resource centres	12 - 1
Care for resources	12 - 6
Purposes of the regional or zonal resource centre	12 - 9
Management Committee for the resource centre	12 - 9
The meaning of in-service education	12 - 10
Types of in-service education	12 - 11
Unit 13: Basic TALULAR display and storage techniques	13 - 1
TALULAR display techniques	13 - 1
Basic TALULAR storage techniques	13 - 3
Using displays for teaching	13 - 15
Bibliography	B - 1

All education is based on the belief that human thought can be developed and expanded. In the classroom the teacher through conversation and constructive questioning, can draw out the children's imagination and thoughts, and stimulate their minds into activity. The teacher's ability to think and reason in terms of what can be fetched, made and used grows with experience and commitment, which will bring about expertise and excellence. To give the child the opportunity to create and to obtain experience with its momentary knowledge is the best preparation for future creative work. A very important part of this manual is how to obtain, prepare and use locally available resources to promote quality teaching and quality learning in the classroom.

In order to make the work participatory, some activities have been included in the units. Participants are expected to work as individuals, or as groups. A plenary session that follows group work is meant for consolidation of the group work. The feedback session is for both checking participants' competence in the activities and sharing some experiences about the topic at hand. It is hoped that participants will find the work inspiring and stimulating.

Andy Byers
Gibson H. Zembeni
Malawi Institute of Education

Teaching

And

Learning

Using

Locally

Available

Resources

UNIT 1

What is TALULAR?

Introduction

Schools take the responsibility for planning and organising students' learning of language and the content subjects in the school curriculum. Also the quality of students' learning depends first and foremost on what happens in the classroom, especially the teacher's teaching strategies, his or her relationship with the pupils as individuals and as a group or a whole class, s/he motivates them and the total management of classroom activities. Teachers should therefore give this learning good direction and maximise its effectiveness.

Many teachers think of teaching and learning resources as the commercially produced instructional materials alone, such as printed charts, pupils' books, teachers' guides, globes, marker pens and radios. The government is normally seen as the source of these materials. If these are not provided, teachers believe that they have a ready excuse for why their teaching does not include the use of teaching and learning resources. Such a narrow view of what constitutes an educational resource can greatly affect the quality of teaching as well as the quality of learning in the classroom.

This unit provides insights into what constitutes a teaching and learning resource and the justification for the use of TALULAR. Emphasis is on effective and efficient use of what is locally available.

Objectives

By the end of this unit you will be able to:

- define the term TALULAR
- state the justification for the use of TALULAR
- use the TALULAR challenge sheet as a guide to collecting resources from the local environment
- describe the child's tools of learning
- explain the differences between 'banking education' and 'participatory approaches'

The meaning of TALULAR

TALULAR (pronounced ta-lu-lar or talu-lar) is an acronym that stands for **Teaching And Learning Using Locally Available Resources**. An acronym is a word whose letters stand for other words. Sometimes an acronym is described as **mnemonic**, that is, a memory aid, in that by simply looking at the word or by mentioning it, one is reminded of the other words embedded in it. For example:

TALULAR stands for Teaching
And
Learning
Using
Locally
Available
Resources

TEACHER stands for:

- Trustworthy
- Earnest
- Active
- Conscientious
- Honest
- Exemplary
- Resourceful

BOMA stands for:

- British
- Overseas
- Management
- Authority

The word **TALULAR** may be used in other contexts as follows:

- **As an adjective:** If you do not have a commercially produced item, then use a **talular** alternative.
- **As a verb:** We must **talularize** the textbook so that it contains appropriate examples for learners in our rural schools.
- **As another noun:** **Talularization** of the education system will ensure that teachers teach with adequate teaching and learning resources. Talularization refers to the process of change, whereby a person, group or system mobilizes locally available resources more effectively and efficiently and becomes less reliant on expensive commercially produced resources, thus making the resulting situation or system more sustainable.
- **As a collective noun.** Visit the local environment and identify what **TALULAR** are available.

Activity 1
TALULAR stands for Teaching And Learning Using Locally Available Resources. In groups discuss the meaning of 'Locally available resources' by focusing on what objects constitute locally available resources.
 Present your work in a plenary after 15 minutes. Reporting time is 20 minutes.

Feedback

TALULAR is a simple philosophy that embraces the twin concerns of teaching and learning in the classroom. The nature and quality of teaching and learning is greatly influenced by the resources available. The word **TALULAR** was coined by Andy Byers (1994) instead of teaching and learning materials. He argues that the word 'materials' is no longer enough to describe what can be used in the classroom. In other words it does not fully encapsulate the philosophy of **TALULAR**. The word 'resources' should replace materials as a more appropriate terminology.

A resource is something or abstract (non-material) that a person or organisation uses to perform work. It is something that one can turn to in time of need. 'Locally available resources' refers to what is readily available in the environment either in the immediate environment or proximate environment. What is readily available in the classroom such as chairs, desks, the walls, the floor and the chalkboard, forms part of the immediate environment including whatever is found immediately one goes out of the classroom. What one finds outside the school or in the catchment

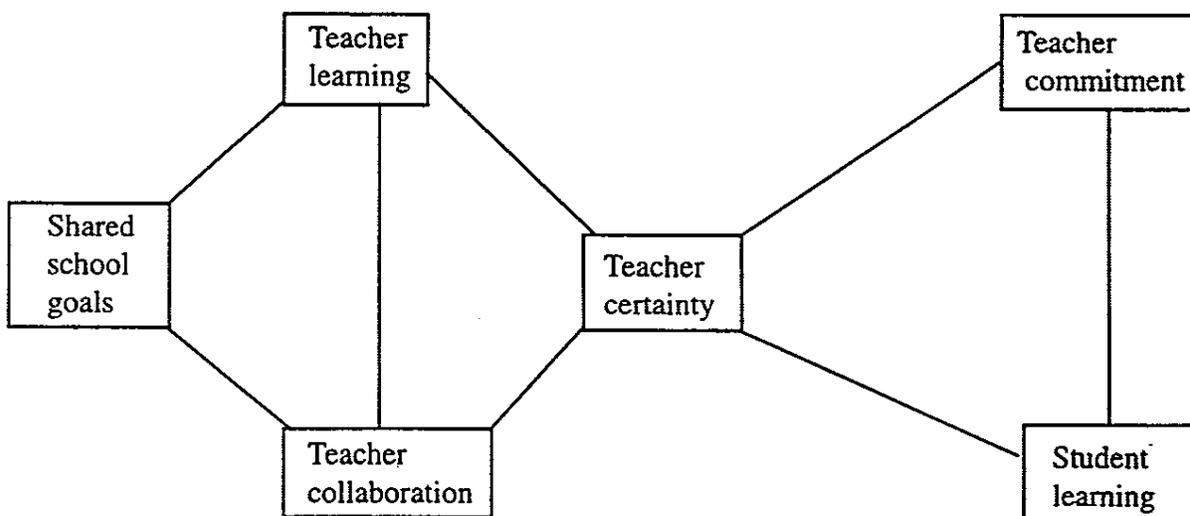
area of the school forms part of the proximate environment. Both the immediate and the proximate environments have readily available resources that can be used to promote effective teaching and learning in the classroom.

Types of resources

The following are the main types of talular resources:

- **Human resources**

Human resources are people who facilitate learning apart from the class teacher. For example, teachers may invite guest speakers from the community such as craft persons to assist in skills development, village heads to talk about their duties or some cultural practices or historical events, medical personnel to discuss health issues and the police to talk about their organization. Teachers may collaborate with other teachers through joint planning, team teaching, montorship, peer observation and supervision. Oliver (1960) gives the following illustration on advantages of teachers collaborating in their work to enhance pupil performance and achievement in the school:



Briefly, the diagram may be interpreted as follows:

- Every teacher should understand what purposes schools serve, in particular, work towards sharing and achieving the set goals effectively and efficiently. S/he should always think about the product – the learners and how to make them effective learners.
- The teacher should continue to be a student: learning from the pupils the psychology of teaching and learning, from books and from colleagues in order to become an effective teacher.
- All teachers should collaborate in their efforts so that learners achieve highly at all the levels of learning. Collaboration refers to sharing experiences, expertise and other resources.
- Teacher certainty means if the teacher continues to learn, and collaborate with colleagues / he will understand his/her job and will teach with confidence and skill.
- Effective and efficient teachers are committed to their work.
- Good teaching and commitment will result into pupils performing well.

Pupils can facilitate their own learning:

- During a demonstration group, leaders work with the teacher for the rest of the class to observe, in readiness for a group activity.
- Get learners to demonstrate things they know how to do.
- Role-play provides another situation in which learners play some roles as they dramatise what they have just learned.
- During language teaching words such as boy, girl, friend, short, tall, thin, fat, can easily be taught and counting how many people there are is easy.
- Ask learners for their ideas and opinions.
- Use learners' own experiences.
- Use learners' tradition and cultural history in teaching.
- Invite learners to ask questions about things which interest them.
- Invite learners to tell you how they can apply what they have learned.

Using parts of the body in teaching and learning is included under human resources:

- Angles can be shown by stretching the arm, bending the arm at the elbow, joining one finger from the left hand with another finger from the right hand.
- The four processes: addition, subtraction, division and multiplication are easily worked out with the fingers. Using fingers like this constitutes what are referred to as back up strategies.
- Words can be 'written' with fingers, toes or our bodies.
- Letters of the alphabet can be formed with parts of our bodies or done jointly with other members.

Animal resources

This category includes:

- Farm animals such as cattle, goats, sheep, fowls and pigeons
- Pets such as cats and dogs
- Wild life such as lions, elephants, crocodiles, monkeys, guinea-fowls and other birds
- Animal products such as skins, leather, milk, cheese and meat

Plants

This category includes:

- Fruit trees such as mangoes, guavas, peaches, oranges and apples
- Vegetables such as cabbage, lettuce, carrot, tomato and spinach
- Tubers such as potatoes, yams, cassava and beet
- Grass
- Indigenous trees
- Exotic trees such as blue-gum, cindrella, and pine

Material resources

This category includes:

- Objects such as charts, water, soil, stones, bottles, tins, cloth and plastic sheets. These may be used directly or recycled to suit the teacher's convenience.

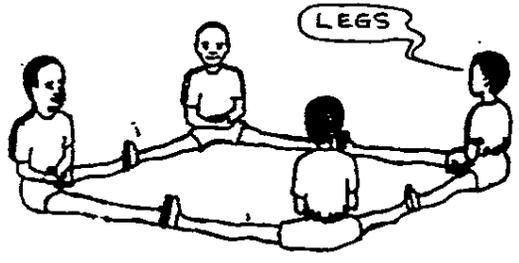
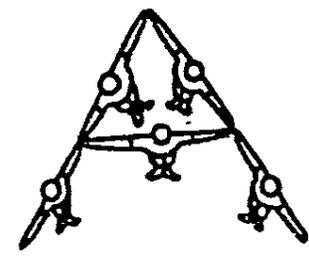
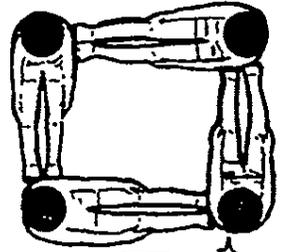
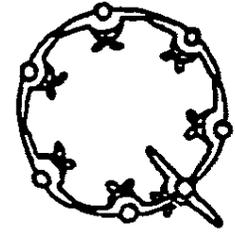
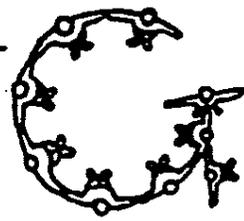
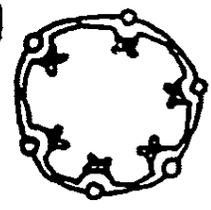
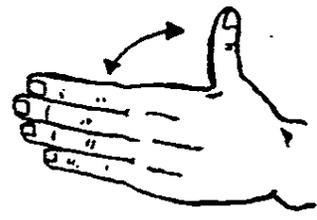




PLAYING WITH ANGLES



FINGERS



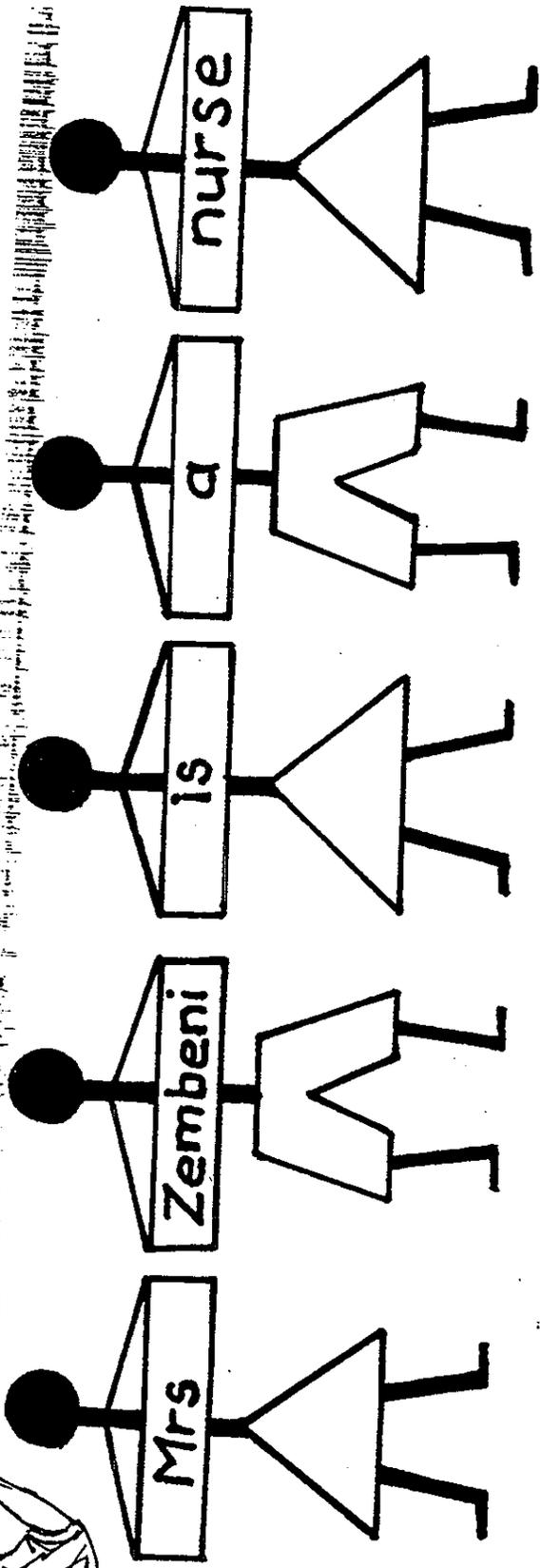
- making letters and numbers with their bodies



HUMAN
and
ANIMAL
RESOURCES

A Y X U T
C O C O U T

Let's spell coconut with our bodies



Sentence construction

Non-material resources

TALULAR also emphasizes the use of non-material resources:

- **Time** – Time should be well planned to match with events or tasks to be done. Some of the factors that limit effective use of time include:
 - (a) inadequate preparation for tasks
 - (b) absenteeism
 - (c) lack of interest in the task
 - (d) digression
 - (e) disturbances
 - (f) inconsistent time keeping
 - (g) lack of monitoring and supervision
 - (h) lack of commitment
 - (i) lack of perseverance

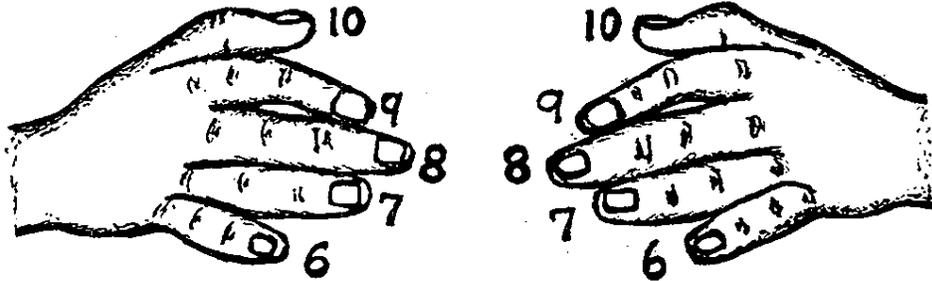
- Personal knowledge, skills, talents and experiences
- Personal qualities such as humour, perseverance,
- Language
- Culture – According to Fafunwa (1982) every human society has developed mechanisms for inducting its young into its culture. The induction is an education process for the perpetuation of the society. In other words, culture is used to shape the behaviour of the young so that it conforms to the demands of society.
- Other non-material resources include art, proverbs, enthusiasm, games, songs, dances and learners' knowledge, and experiences.

Further ideas about TALULAR

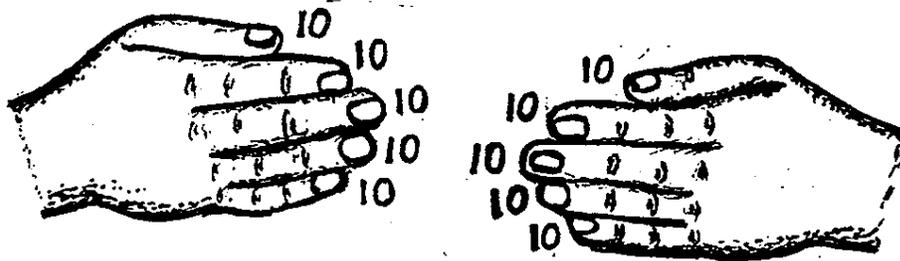
- **Realia:** These are real objects used as teaching and learning resources in their original form. For example, showing a stone, a car, a leaf, a goat, during language teaching when these form part of the topic for discussion. Realia are better than models or pictures if one is interested in learning the form and characteristics of the objects under study.
- **Models:** A model is a recognizable representation of something real. Sometimes realia may be difficult to use. For instance, some of them may be dangerous to handle such as a living snake, living bees and a living crocodile. Other realia may be far away, or they may be too large to be brought into the classroom, or they may be too small to be seen with the naked eye. It is therefore more convenient to use a model in such circumstances.
- **Pictures and drawings.** Photographs may be used as teaching and learning resources in the absence of realia or models. For example, cuttings from newspapers, magazines make good teaching and learning resources. In addition, drawings are used for developing illustrations on cards or charts. Drawings may also be used alongside realia especially when making a record of the parts of the object being studied.
- **Prototype TALULAR:** These are samples of teaching and learning resources that are made and stored for immediate use. Proper storage sustains the life of the TALULAR. Storage techniques are discussed in the subsequent sections of this manual.

The talular innovations advocate for a radical change in the way we view and utilize our locally available resources in order to move closer to quality education and sustainable development. TALULAR collects, tests, develops, illustrates and shares ideas and activities from around the world, which focus on teaching and learning using locally available resources.

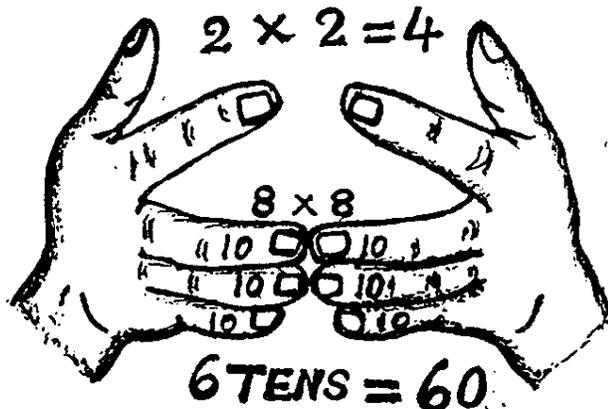
Fingers are talular resources



Your hands make a **talular** digital computer. First, give names to your fingers on both hands 6 to 10 to represent the multiplication tables 6 to 10 as shown above.



Secondly, give a value of 10 to every finger. To multiply two numbers, eg 8 by 8, join the fingers that bear the multiplying numbers as shown below. The fingers that are touching, in this case 8 on the left and 8 on the right and those below them give a tens figure, that is, a number that ends in zero. You simply add their values: 6 tens or 60.



Then multiply the number of fingers above those touching, in this case 2 on the left, by the number of fingers above those touching on the right and add the answer to the tens figure: $2 \times 2 = 4$. Therefore $60 + 4 = 64$. This works for any number from 6 to 10. This talular computer is a memory aid or mnemonic

$$60 + 4 = 64$$

$$\therefore 8 \times 8 = 64$$

In how many other ways would you use your fingers?

Purpose of using TALULAR

The design and development of teaching and learning resources begins with thorough preparation of schemes arising from the use of the teaching syllabus, textbook and teacher's guide. This ensures that the TALULAR produced are relevant to the topic to be taught or learned.

Activity 2

In groups, discuss the reasons why the teacher should use TALULAR in his/her lessons. Report your work in a plenary after 15 minutes and reporting time is 20 minutes.

Feedback

Lockwood (1979) and Nacino-Brown et al (1982) have provided the following summary of the reasons why teachers should use TALULAR in the classroom:

- promote meaningful communication, hence effective learning
- ensure better retention, thus make learning more permanent
- provide first-hand or direct experience with the realities of the social and physical environment
- help overcome the limitations of the classroom by making the inaccessible accessible
- provide common experience upon which other learnings can be developed
- stimulate and motivate students to learn.
- help develop interest in other areas of learning
- encourage active participation, especially if students are allowed to manipulate materials used
- help simplify complicated topics
- reduce the need for a teacher's verbal expression
- consolidate knowledge, skills and attitudes
- help summarise main points
- encourage creativity
- cost little or nothing, thus increasing the chances of sustainability
- empower at the grassroots level, thus increasing chances of decentralization and sustainability
- encourage us to reduce, recycle and reuse litter, the three Rs of TALULAR, hence they are environmentally friendly.

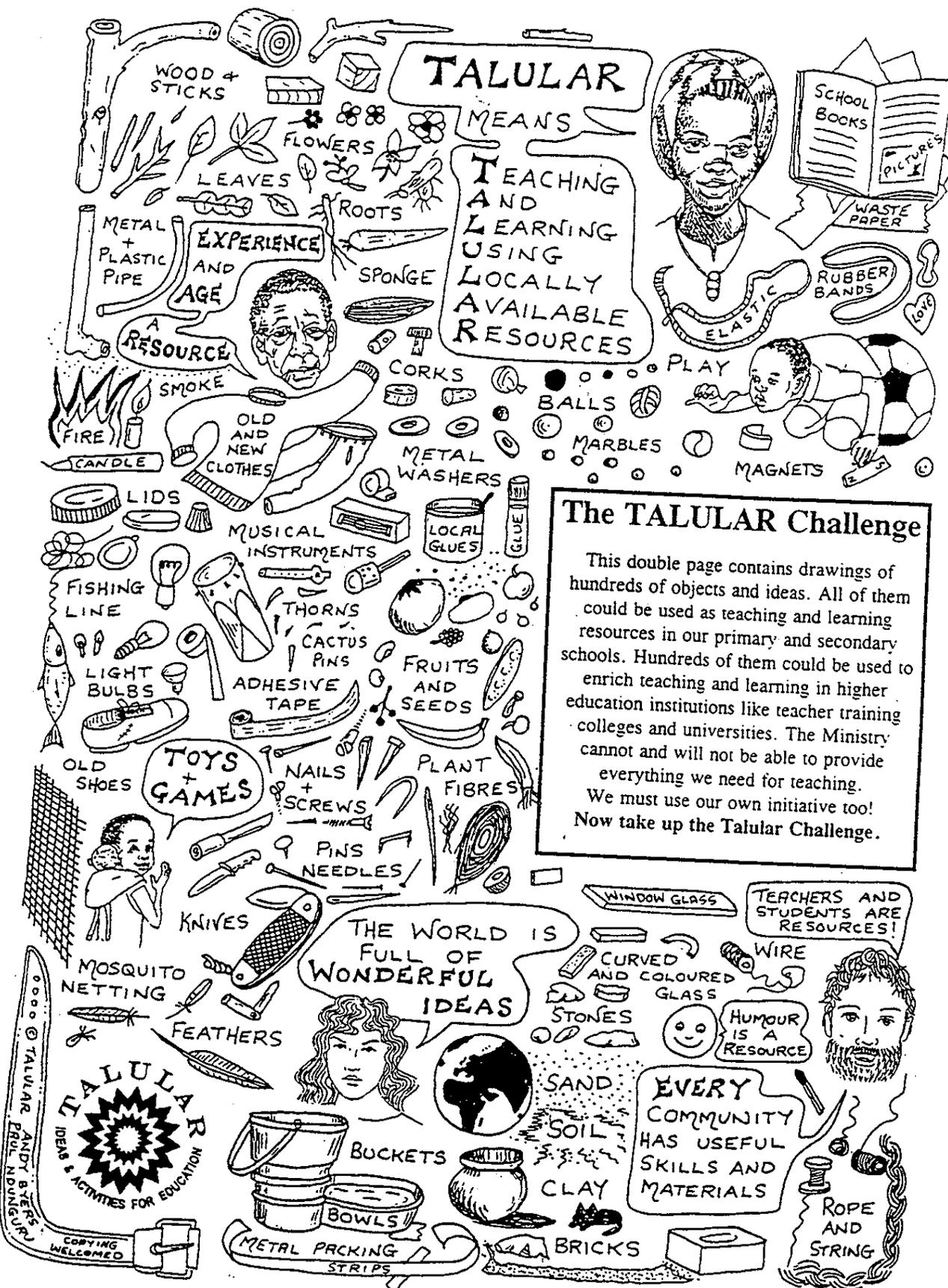
The TALULAR challenge

The TALULAR challenge is a collection of drawings of objects in our local environment, that we can use for teaching and learning. Our focus is on resources found in African countries endeavouring to meet the goal of education for all. The collection is a guide during a **talular hunt** to create a **talular bank** in the school or a **talular learning centre** in the classroom, that is, part of the classroom with displays to enhance incidental learning during break and outside school time.

Activity 3

In groups, discuss why the collection of drawings is given the name TALULAR challenge. Also state some of the ways in which you can create a talular bank in the school.

Report your work in a plenary after 15 minutes and reporting time is 20 minutes.



TALULAR
 MEANS
TEACHING AND LEARNING USING LOCALLY AVAILABLE RESOURCES

The TALULAR Challenge

This double page contains drawings of hundreds of objects and ideas. All of them could be used as teaching and learning resources in our primary and secondary schools. Hundreds of them could be used to enrich teaching and learning in higher education institutions like teacher training colleges and universities. The Ministry cannot and will not be able to provide everything we need for teaching. We must use our own initiative too! Now take up the Talular Challenge.

THE WORLD IS FULL OF WONDERFUL IDEAS

EVERY COMMUNITY HAS USEFUL SKILLS AND MATERIALS

TEACHERS AND STUDENTS ARE RESOURCES!

HUMOUR IS A RESOURCE

TALULAR
 IDEAS & ACTIVITIES FOR EDUCATION
 @ TALULAR ANDY STEPHENS PAUL NDUNGU
 COPYING WELCOMED



Activities

Take a few minutes to look over our TALULAR poster

- 1 Choose 10 things that you could use in teaching a particular subject.
- 2 How many subjects could you use 1 thing for?
- 3 How could you use any 2 things together?
- 4 Make up your own challenge.



Feedback

Establishing a talular bank broadens the resource base in the school thereby making lessons varied and interesting. The collection of drawings mentioned above is referred to as the TALULAR challenge for the following reasons:

- **It is a challenge to know which resources can be used for teaching and learning.** The local environment contains a lot of resources that we can use for teaching and learning and yet we often experience lessons that are totally without such teaching and learning resources.
- **It is a challenge to know which one thing can be used in several situations or subjects.** Some teachers have a narrow view of what else they can do with the resource they have used in one situation. Knowledge of several situations we can create with one thing enriches chances of learning effectively in the classroom. For example, the bottle caps can be used in situations such as counting in mathematics, identification of numbers, when numbers are written inside them, identification of letters of the alphabet and word formulation, as containers in science, as coins in mathematics and as wheels to a toy car to demonstrate how friction can be reduced.
- **It is a challenge to know which different things can be used in the same situation.** The essence of such knowledge is that when some of such resources are missing, one always has alternatives that are readily available for immediate use. For instance, sticks, stones, seeds, leaves, coins, bottles, bottle caps, tins, clay balls and seed pods can be used as counters to teach number value.
- **It is a challenge to know how to use TALULAR appropriately.** It should be recognised that making teaching and learning resources is one thing and using them effectively and efficiently is another. A deliberate effort must be made to know how to match a particular resource to a particular situation to the best advantage. One should be able to match a particular resource to several situations or subjects, or match several resources to the same situation. In other words, one should be able to identify resources relevant to teaching of Mathematics, Chichewa, English, Social Studies, Physical Education and Agriculture.
- **It is a challenge to know that the TALULAR challenge as a collection of drawings is not complete.** There are many more examples of resources that have not been included in the collection. It is the duty of users of this manual to discover what is missing and add it to make the collection richer and richer.

You can create a talular bank in the school in the following ways:

- study the syllabus, the teacher's guide and the pupils' textbook
- identify the teaching and learning resources listed in the teacher's guide and the teaching syllabus and make your own list
- visit the local environment and identify what TALULAR are available
- brief learners about the objects you want them to collect
- collect the materials using boxes, sacks, buckets, plastic bags, bottles, tins, plates and baskets
- sort out the resources into those to be used directly and those that require modification or recycling to suit your convenience
- record the samples for easy access during production or use in teaching

- keep the collected TALULAR in a bank. Containers are needed. Label the containers for easy access
- students may bring some TALULAR from home
- the teacher can borrow some of the TALULAR from the community

The child's tools of learning

Some people enter the teaching profession without having in their minds any clear idea of the purpose of education. The result is dull and careless teaching. A good teacher recognizes the reasons why learners come to school, why parents send their children to school and why the government entrusts teachers with schools and pupils. In addition, a good teacher recognizes what every learner brings to the classroom that may enhance his or her perception in the learning process.

Activity 4

In groups discuss the child's tools of learning, characteristics of an effective teacher and contrast them with characteristics of a bad teacher.

Report your work in a plenary after 20 minutes and reporting time is 25 minutes.

Feedback

Nair (1996) has articulated the following characteristics of an effective teacher:

- Meeting learners' cognitive, psychomotor and affective needs
- Taking interest in every learners' work
- Maximizing individual learner's active enquiry
- Motivating students to learn and like school
- Maximizing opportunities for effective teaching and minimizing constraints
- Having high expectations and value of all learners
- Continual research into his or her own effectiveness as a teacher
- Having a passion for his or her subjects and for teaching
- Having a strong desire to continue to learn and develop professionally
- Willing to admit mistakes or lack of knowledge
- Willing to put in more than minimal time
- Having a sense of commitment
- Refusing to be overwhelmed by circumstances

Chipeta (1999) has stated the following characteristics of a bad or poor teacher: Poor classroom teachers

- look down upon their own profession
- may be habitual latecomers
- may be bullies
- may be liars because they do not want to admit lack of knowledge
- may be habitual drunkards
- may be unsympathetic with students who have problems
- may be unsympathetic with students who have a laissez-faire attitude
- are generally a moral problem and failures in the classroom
- give up slow learners when they are actually supposed to find the means of developing their learning abilities

- do not seek ways of dealing with poor and stubborn pupils
- fail to recognise handicaps such as poor sight and hearing which are learning disabilities among pupils
- cannot adjust their methods of teaching, class management or make arrangements for special needs teaching
- do not behave like an acceptable role-model for learners
- encourage their pupils to play truant through their use of methods of teaching which lack willingness
- make lessons too dull to attend
- demonstrate high degree of lack of conscience
- waste class time and lose pupils' respect by shouting at or accusing their pupils of poor responses
- do not care what the pupils who have finished their class work do while waiting for the slow ones to finish
- do not plan instruction effectively, rarely interact with pupils actively
- fail to evaluate their pupils' learning or their own teaching effectively

Unless teachers display good behaviour, the teaching and learning acts will be negatively affected, resulting in poor pupil performance and low quality education. Tools of learning are factors that facilitate learners' perception that every teacher should bear in mind.

Activity 5

- Individually, read the following story and answer the questions which follow it
- In groups, compare your answers and come up with consolidated answers

A young cock

Once upon a time there was a young cock who was warned by his mother never to peep into a nearby well. The cock agreed but as time went on he became more and more restless, wondering what could be inside it. Eventually he decided to satisfy his longing by taking a single peep. He did so, and thought he saw another cock looking at him. He challenged the cock in the well and was challenged in return. Unable to stand the insult he flew down upon the other cock and he died in the well. (Adapted from West African Teacher's Handbook by S.A. Banjo)

Questions

- Which word would you give to describe the longing on the part of the young cock to know what was inside the well?
- Which senses did the young cock use in order to satisfy his longing?
- Which things would you say are likely to create a situation like the one in this story?
- If you were the mother to this young cock how could you have prevented the young cock from drowning in the well?

Spend 5 minutes for individual reading, 10 minutes for answering the questions and 20 minutes for group discussion.

Feedback

A child's tools of learning include the following:

- **The five senses**

The knowledge comes to us through the senses of sight, hearing, touching, taste and smell. Through these senses we maintain our communication with our environment. What we see, hear, touch, taste or smell is reported to our brain which interprets the sensation in the light of our previous experience. The result is perception. A broad base of varied TALULAR will satisfy all the senses. There is the need to talularize the classroom so that it contains appropriate TALULAR in order to create a learning centre in the classroom for pupils to understand what they learn through the senses.

- **Attention**

Learners want to see, hear (sound), touch, taste or smell things. What talular resources aid attention? Pupils usually find it easy to pay attention when the subject or topic is very attractive, interesting and they do not make much effort to do so. When they study work they are not interested in, they have to force their minds to concentrate. It is extremely important that teachers make teaching, continuous assessment, remediation and enrichment as attractive as possible to capture learners' attention. Attractive TALULAR arouse learners' interest and motivate the learners because the TALULAR are within their experiences. Furthermore, these TALULAR enhance a teacher's demonstration, description, assessment, learners' observation and practice effectively.

- **Memory**

Memory is the store-house of knowledge. By means of it learners retain and recall when asked the information they have acquired through their sense impressions. It is the duty of every teacher to adopt in his or her teaching, methods which will help learners to remember what s/he is teaching them. By using appropriate TALULAR learners handle, manipulate, observe, experiment, describe and internalise the form of what they see as well as what they learn. In that way their memory is enhanced. In literacy, learners' memory is improved by creating a clearly defined context in which the meanings of words are thoroughly illustrated. Varied TALULAR will facilitate creation of a more meaningful context which results into clear understanding of what learners learn.

- **Curiosity**

Curiosity is normally defined as a drive that is evoked by anything only partially understood. It is usually evoked by anything strange, new or unusual. For example, the longing of the cock in the story above, to know what was inside the well was due to curiosity, the cock, being curious, sought restlessly for an explanation until he looked into the well for it. Curiosity causes one to explore strange places and objects in order to know them. If a teacher manages to evoke the learners' curiosity, s/he finds them asking questions, examining material for the lesson and doing all they can to understand the topic. How can a teacher evoke students' curiosity in the classroom? A good teacher uses TALULAR as devices to whet or sharpen pupils' curiosity during the introduction to his/her lesson and ensures that it is satisfied by sustaining the use of TALULAR so that the satisfaction is complete by the end of the lesson.

Banking education vs participatory approaches

Educational development experts are convinced that only participatory approaches enhance understanding of what they learn. According to Freire (1972) Banking education encourages passive learning and learners rely heavily on copying or memorising notes even if they do not understand them.

Activity 6

You are familiar with what happens in banking transactions at the bank. A customer goes to the bank and deposits some money, and the bank teller receives and records the deposit (credit). Some days later, the customer goes back to the bank to withdraw money against his/her deposit.

Working in groups:

- Explain the way(s) in which the above scenario is similar to what goes on in the classroom.
- Give examples of participatory approaches.
- Using tabular chart paper, draw two columns to contrast Banking Education with Participatory Approaches.

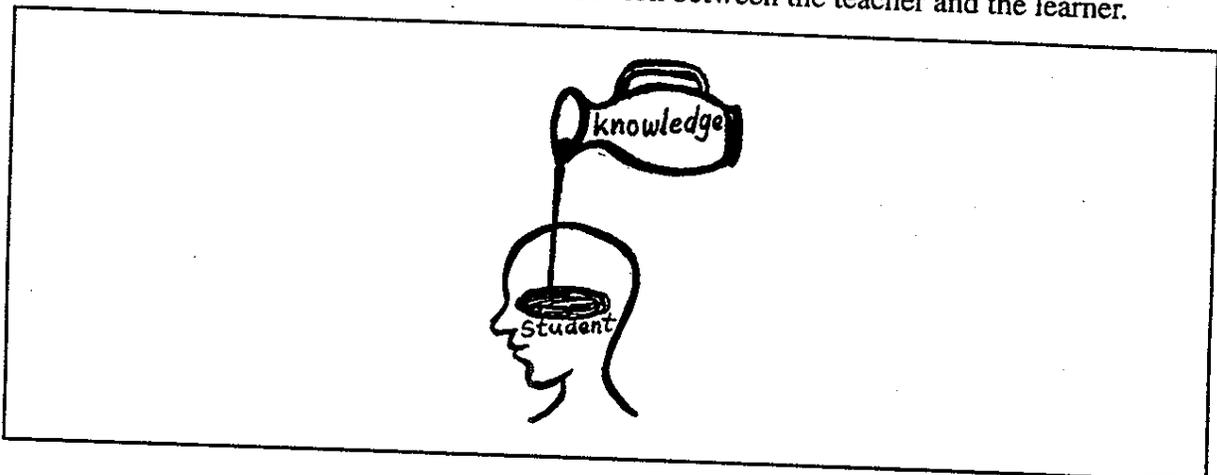
Report your work in a plenary after 20 minutes. Reporting time is 25 minutes.

Feedback

Banking education refers to the traditional educational practice in which the teacher is regarded as the fountain of knowledge. Teaching is defined as imparting knowledge or passing information. The teacher gives out the knowledge to the learners while they receive it passively. During a test, the teacher expects to receive back exactly what s/he taught the students. Sometimes banking education is called teacher-centred education. The champions of this type of education advocate for the following advantages:

- Wide coverage of the syllabus within a short time
- Creates a quiet class 'always listening to the teacher'.

However, according to du Plessis (2002), they cover the syllabus instead of **uncovering** the syllabus. Covering the syllabus refers to teaching the topics regardless of pupils' understanding. Uncovering the syllabus refers to teaching that ensures that learners understand the topics thoroughly. It can be argued that teaching is not like pouring a liquid into an empty vessel as illustrated below, but involves an active interaction between the teacher and the learner.



Participatory approaches

Participatory teaching and learning as opposed to banking education actively involves both the teacher and the learners in a joint enterprise which is enjoyable and motivating. Lomax (1996) argues that meaningful improvement of quality learning is brought about by individuals taking action to change their own situations and making their practice more relevant to those they are serving. He further argues that teaching involves an active interaction between the teacher and the students.

According to Farrant (1980) teaching in participatory learning is defined as a process that facilitates learning. He argues that a lesson is not taught unless it is learned. The teacher's role is not merely passing information, but establishing a productive classroom atmosphere from the start by means of good organisation of adequate resources and carefully planned structures or activities. By interacting with the learners the teacher uses their experiences as a resource. S/he helps them make effective and efficient use of the TALULAR that are readily available. Put in another way the teacher acts as a catalyst so that learners understand and master what they learn.

Some of the participatory approaches a teacher can use as a facilitator to enhance active participation in the classroom are the following:

Asking and answering questions

Questions may be asked on a topic for the following purposes:

- to stimulate thought during introduction of a topic
- to guide reading of a comprehension passage when questions are given as prequestions
- to establish rapport with students
- to motivate pupil learning
- to develop the ability to think
- to emphasize important points
- to revise, review, recall, reinforce a recently learned point
- to check understanding, knowledge and skills (to diagnose)
- to gain attention to task, to enable teacher to move towards teaching points
- to teach the whole class through pupil answers
- to give everyone a chance to answer
- to use bright pupils to encourage others
- to probe pupils' knowledge after critical answers
- to allow expression of feelings, views and empathy

Learners should be allowed to ask questions to the teacher and to fellow learners. Questions should be dealt with skilfully. Kerry (1982) has identified the following questioning skills:

- pitching the language and content level of questions appropriately for the class
- describing questions around the class
- prompting and giving clues when necessary
- using pupils' responses, even incorrect ones, in a positive way
- timing questions and pauses between questions
- learning to make progressively greater cognitive demands through sequences of higher order questions
- varying the questions: wh, true-false, yes-no and statements with question tags

TALULAR

Working with small groups



WE CAN ALL SEE WHAT IS GOING ON

AMAZING!

NOW I UNDERSTAND IT!

THIS IS REALLY INTERESTING!

WORKING WITH GROUPS FOR A SHORT TIME IS A NICE CHANGE

THE PUPILS ENJOY IT TOO!

WHAT DO YOU THINK?

T.A.L.U.L.A.R. stands for "Teaching And Learning Using Locally Available Resources".. Andy Byers and Isaiah Mphande. Not-for-profit copying welcomed.

TALULAR

How would you teach a large class?



IMAGINE THAT YOU ARE A TEACHER WHO MUST TEACH A CLASS OF OVER 100 PUPILS.

WHAT WOULD YOU DO?

HOW WOULD YOU ORGANISE THE CLASS, SO THAT EVERYONE GETS THE CHANCE TO LEARN?

DISCUSS THIS QUESTION WITH YOUR FELLOW TEACHERS

AND NOTE DOWN USEFUL IDEAS

THEN TRY THEM OUT!

Problem solving

Learners are given more challenging work which they study and come up with solutions individually or in groups. Learners who are doing very well are given more challenging work for enrichment, and those who still have problems are given work that is deliberately modified to suit their convenience in order to motivate them. Problem solving also prepares for critical thinking, decision making and effective communication.

Dialoguing with others

Learners are given the opportunity to share experiences with others through dialogue. Dialogues should be realistic and interesting. People are receptive to dialogue and involvement rather than simply being told. Dialogues enhance fluency and effective communication in language development.

Games

Games are non-material resources. They may take the form of puzzles, quizzes or questions. They are very useful:

- to motivate the learners
- to reinforce what has just been learned
- to arouse learners' interest
- to energize the learners' particularly when they begin to show signs of fatigue

Discussion of learning topics

Discussion may involve a whole class or a panel. Normally, a whole class discussion or plenary follows group discussions to consolidate what was discussed in the different groups. Discussion is an opportunity to develop listening, speaking, organisation and presentation of ideas in a logical order as they share knowledge and experiences.

When classroom discussion takes place, two key decisions should be taken:

- the layout of the room so that learners can see and hear each other
- how to direct the discussion and shaping the flow and development of what is said

In using classroom discussion to good effect, the following guidelines should be borne in mind:

- indicate the purpose for having such a discussion
- indicate how long the discussion is intended to last
- encourage every participant to express his or her ideas
- tolerate errors and badly formed notions until the end rather than getting them interrupted or shot down immediately
- summarise at the end what conclusions can be drawn

Debate on important topics

Learners are put into two major groups:

- **proposers** of the motion or topic
- **opposers** of the topic

Learners may debate the statement:

AIDS patients should not be cared for

Countries should stop growing tobacco for health reasons

This activity allows them to examine reasons for their views. Also, apart from developing listening and speaking skills, learners practise organisation and logical presentation of ideas.

Field trips

A field trip is a visit to a place of interest. Learners are taken to see a real life situation or make a talular hunt into the environment. Learners are required to observe, collect specimens and write a report of the visit. This is an opportunity to develop the skill of inquiry, observation, and writing skills.

Rôle-play

Learners act out situations. As they act the role, they experience the feelings of the person they are imitating. The following guidelines should be considered:

- Students are given roles to play and in so doing they become personally involved in the issues.
- It is important to make sure that the role-play is preceded by clear and specific instructions on what the issue is all about.
- The different roles should be discussed before hand to ensure that every player is conversant with what is expected.
- Participants may volunteer or could be selected by the teacher.
- Different parts may be written for the players.
- The teacher should direct only when necessary.
- Discuss the points raised by the players to summarise learning points.

Songs

Learners are engaged in singing. Singing is done for the following purposes:

- to reinforce understanding of an idea or concept
- to enhance understanding of the number value in Mathematics
- to reinforce pronunciation, intonation and meanings of words in language teaching and learning
- to motivate the learners
- songs are mnemonic, that is, they help the learners to commit what they are singing about to memory
- to energize the learners, especially when they begin to show that they are tired

Story telling

Learners can tell stories which are true or fictitious or they can listen to a story. Story telling enhances development of the language skills of listening, speaking, reading and writing. The teacher or a guest speaker can tell a story and students listen. They are told to retell the story by writing it according to the way they understand it. Having written it, learners are asked to read what they have written to a partner, a group or to the whole class.

Peer teaching

This is sometimes called child-to-child method or peer mentoring. One learner takes up responsibility towards others. For example, during group work a learner may teach skills to another child or other children.

Peer observation

This is a method aimed at improving classroom practices. One teacher, deliberately arranges with another teacher to be observed during delivery of a lesson. After the lesson, the two teachers discuss strengths and limitations of the lesson.

Team teaching

This is another method of crossing the one-class or one-teacher barrier, although learners of roughly the same age are normally put together. The essential connecting factor within the teaching team is harmony of purpose, and this feeling of cooperation will be reflected in the behaviour of the pupils. Disharmony between the teachers can have a devastating effect. Freeman (1992) has articulated the following benefits of team teaching:

- Large numbers of children can be taught by a coordinated group of teachers.
- Groups of children can be varied in size and ability to suit the task of the moment.
- Specialist teachers can use their skills with appropriate groups.
- Non-specialist teachers and equipment can be effective where they are needed.
- Personality clashes between individual children and teachers are diminished.
- Pupils are less likely to see their teachers in a formal role, a practical asset to education.
- Cross-fertilization of ideas among the teaching staff is promoted.
- Teachers are given the opportunity to consolidate their skills of instructional planning, implementation and evaluation.
- Less able teachers have a chance to develop themselves through team work.
- Teachers are encouraged to use the available TALULAR, more especially time economically.

Enter-educate or edutainment or infotainment

This is a participatory method that combines entertainment with dissemination of information. It encompasses role play or dramatization, singing and dancing. This is a good approach to teaching by entertaining the learners to motivate them and at the same time emphasizing the main learning points.

Webbing

Webbing is a teaching method in which students learn the concept of interdependence or learn relationships that exist between some objects. For example, webbing may be used to portray how air, rocks, plants, animals and humans function together in a balanced web of life.

In this method, students form a circle. The teacher or a learner stands in the centre of the circle with a ball of string and calls out:

- Who can name the plant that grows in this area?
- Pupil A : Mchongwe
- Leader : Good. Here you are Miss Mchongwe, you hold the end of the string
Is there any animal that might eat the Mchongwe?
- Pupil B : An elephant
- Leader : Ah, a tourist attraction
: Mr Elephant, you get hold of the string here.
: You are connected to Miss Mchongwe by your dependence on her for your lunch
: Now who needs Mr Elephant for his trumpet?

The teacher or leader continues to connect the learners with the string as their relationship to the rest of the group emerges. S/he brings in new elements and considerations, such as other animals, soil, water and air, until the entire circle of learners is webbed.

Future's wheel

A future's wheel is a participatory method in which learners have an opportunity to explore causes and effects as well as interrelationships in an issue or problem. The procedure in the utilization of this method starts with selection of any problem, for instance, an environmental problem which has some causes and effects such as deforestation, water or air pollution, soil erosion, rapid population growth and HIV/AIDS.

The method bears this name because the user of the method imagines there is a wheel that rolled in the past, into the present and will continue to roll into the future. The following guidelines are useful:

- involve the learners in brainstorming factors that contribute to the problem
- brainstorm effects of the problem
- build up the future's wheel
- use arrows to show relationships

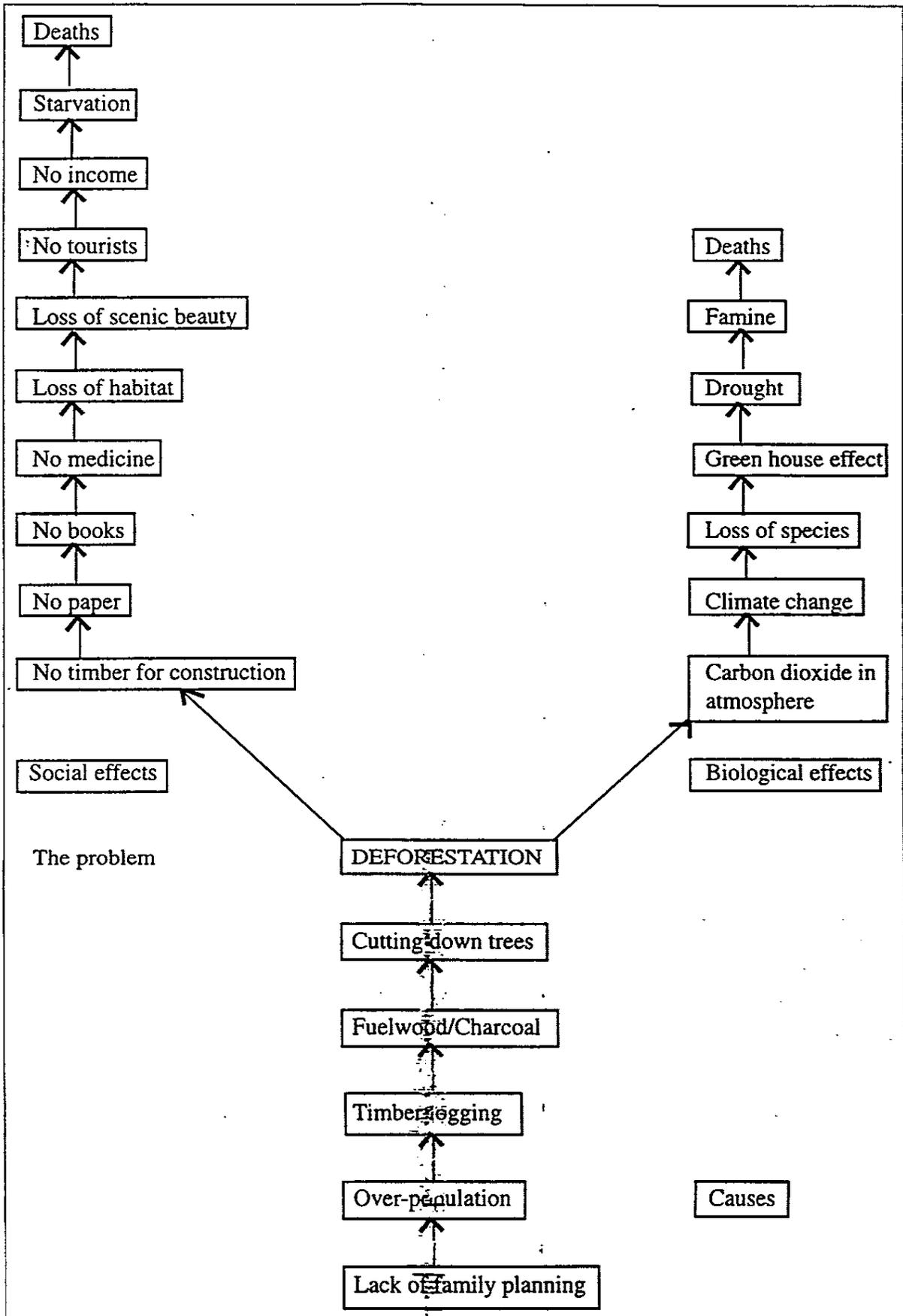
When the diagram is completed, the following questions may be asked:

- Which factors are caused by humans?
- How can people be taught to make positive changes in behaviour to reduce the effects?
- Which factors may be caused by natural phenomena?
- Which factors require some intervention?
- Which effects are more serious than others?

A Future's wheel on deforestation

This method and the subject matter can best be illustrated on a talular chart.

- Decide what should go into the chart.
- Write the causes and effects briefly on used envelopes on the reverse side.
- Plan the layout on a cardboard as shown below.
- Paste the envelopes on the chart or cardboard with porridge.
- Ensure that the writing is large enough for easy reading.



The following table contains a summary of the contrast between banking education and participatory approaches:

Banking education	Participatory approaches
<ul style="list-style-type: none"> Teaching is imparting knowledge 	<ul style="list-style-type: none"> Teaching is a process that facilitates learning.
<ul style="list-style-type: none"> Learners are empty vessels and their experiences are not used in teaching 	<ul style="list-style-type: none"> Learners bring some experiences to the classroom and teacher takes them from known to unknown.
<ul style="list-style-type: none"> Students learn passively 	<ul style="list-style-type: none"> Students are actively involved in their studies or lessons.
<ul style="list-style-type: none"> Learners are afraid of taking up a responsibility for their learning so that they cannot do anything on their own. 	<ul style="list-style-type: none"> Learners develop confidence and take responsibility for their learning. When they are left alone, they use their initiative and time effectively.
<ul style="list-style-type: none"> The teacher is interested in covering the syllabus in readiness for exams. 	<ul style="list-style-type: none"> The teacher is interested in uncovering the syllabus for quality teaching and quality learning.
<ul style="list-style-type: none"> Learning styles are not considered; all the learners are regarded as the same, hence, TALULAR not important. 	<ul style="list-style-type: none"> Learning styles are considered; a variety of TALULAR are used so that learning through the senses is effective.
<ul style="list-style-type: none"> Creativity is not developed because learners learn passively. 	<ul style="list-style-type: none"> Creativity is developed because through active involvement learners discover new ways of doing things.
<ul style="list-style-type: none"> The teacher is regarded as the source of all knowledge in the classroom. 	<ul style="list-style-type: none"> The teacher is a catalyst or facilitator of learning, not necessarily the source of all knowledge in the classroom.
<ul style="list-style-type: none"> Learners do not practise what they learn; it is possible to reach a high class before effective mastery of what they learn. 	<ul style="list-style-type: none"> Learners practise their skills and knowledge and become proficient in their work; practice makes perfect.
<ul style="list-style-type: none"> Learners rely heavily on memorizing things, which encourages rote learning. 	<ul style="list-style-type: none"> Learners understand what they learn because the various participatory approaches and the TALULAR accompanying them provide more meaningful situations in which learning makes sense.

It must be emphasized that a rich collection of TALULAR adds to the effectiveness of participatory approaches highlighted above in order to achieve quality teaching and quality learning. Using the local environment as a source of TALULAR increases the opportunities of creating a broad resource base for effective teaching and learning.

UNIT 2

Principles of TALULAR

Introduction

Principles of TALULAR are rules or themes that govern operations in the talular initiatives. Whether teachers make TALULAR or borrow from elsewhere to facilitate their teaching for effective class participation, the guidelines or principles discussed in the subsequent sections of this unit should be borne in mind. Every teacher should recognise the fact that the use of TALULAR in any subject is encouraged because TALULAR have the power to motivate the learners and clarify points for them. They are the only devices which, if used with the teacher's explanations, make the learner establish an exact picture of a situation and stimulate him or her to participate in the learning process. The principles stress this.

Objectives

By the end of this unit you will be able to:

- describe the principles of TALULAR
- apply them when developing and using TALULAR
- sing the TALULAR SONG

Activity 1

Working in groups:

- List down some of the principles of TALULAR you would bear in mind when developing and using TALULAR for teaching and learning.
- Discuss their importance.
- Report your work in a plenary after 15 minutes; reporting time is 20 minutes.

Feedback

The guiding principles of TALULAR are summarized as follows:

Quality education

The talular initiative advocates for a radical change in the way we view locally available resources, in order to move closer to quality education and sustainable development. TALULAR collects, tests, develops, illustrates and shares ideas and activities from around the world, which focus on teaching and learning using locally available resources. Lessons based on banking education are dry and dull. TALULAR complements what textbooks contain by widening the resource base to include many non-material resources necessary to promote participatory learning and for the holistic approach to materialize. In order to have an all round education you and the learners need access to a large and varied resource pool. TALULAR of high quality will attract and motivate the learners. Above all, quality TALULAR maximises quality teaching and learning and minimises constraints in the classroom. It is stressed that every teacher should engage in a talular hunt and create a talular bank to achieve quality education.

Good teaching

The teacher is one of the most important variables as far as quality education is concerned. A well qualified and committed teacher can promote quality education through good teaching. For instance, according to Hanson (1964)

'an important sign of a long-range health of a nation is the spirit and quality of its teachers. There is no substitute for teachers who are dedicated to their nation and to their pupils. It is for this reason that African nations are correct in emphasizing the importance of getting the very best people possible into teaching and making every effort to keep them there. The future of the nation rests in the hands of the teachers, for the qualities they possess today will inevitably be reflected in the citizens of tomorrow'.

If TALULAR are plentiful, teaching will be enhanced. The teacher is able to organize many activities for students. S/he is able to meet learners' cognitive and psychomotor needs by providing opportunities for students to handle, observe and manipulate objects, thereby maximizing individual learners' active inquiry. By creating a talular bank the teacher ensures that TALULAR are readily available whenever they are required. The TALULAR used effectively and efficiently will contribute to good teaching thereby enhancing implementation of a holistic approach to education.

Good learning

Good teaching and good learning are twin concerns. Good teaching facilitates good learning. In good learning the teacher engages learners in many varied and purposeful activities by means of a considerable diversity of TALULAR with adequate guidance, supervision and active involvement so that learning is meaningful. According to Onwu (1998) effective learning is characterised by the following:

- acquisition of desirable knowledge, skills and values and the ability to apply these to life problems
- use of study skills and knowledge in different situations
- an ability to identify issues in their totality and relate school learning with experience
- a change in learners' attitudes, skills and knowledge
- ability to control and monitor their own learning
- good listening skills and an ability to work with others
- inquiring, inquisitive and curious minds
- an ability to construct wider meanings and build upon them
- awareness of their limitations and the disposition to find solutions
- being problem solvers
- an ability to interpret instructions clearly
- a desire to read widely
- an ability to summarize and make their own notes rather than depending on copying from the chalkboard

All these characteristics of effective learning are closely related to participatory approaches, and these in turn call for TALULAR.

Creativity

TALULAR encourage creativity. Teachers are being told, "Be creative". "The best teachers are creative and innovative, be innovative." "When you get to your school, make sure you make the best use of the environment!" Yet teachers have little guidance in how to be creative, innovative or resourceful. Simply telling teachers to make the best use of the environment is not good enough. Prototype TALULAR and demonstration of how they are made and used in the classroom give teachers an insight into how they can evoke creativity in learners. For example, simply showing learners a car is not as effective in evoking their creativity as giving the same learners some wire or clay for them to come up with models of the car, after showing them the car. In the latter, although a sample is given, some learners come up with their own designs the teacher never expected. The provision of TALULAR, wire or clay evokes the learners' creativity and innovative use of available resources.

Zembeni (2000) argues that teachers have many ideas, most of which are latent. One or two talular ideas accepted will liberate the minds, which lead to more ideas taking off from the ground leading to new heights of creativity. A creative teacher makes a creative class as the TALULAR they manipulate during practice in making things offer an opportunity to come up with interesting designs and models.

Freeman (1992) states that being creative means being able to offer the world ideas or products which are novel. Creative ideas should contain the seeds of change, adding to the available ways of looking at things, and offering fresh approaches to knowledge. She further argues that improved knowledge and understanding of the subject area is the essential basis for creativity in that area. A competent musician, for example, who understands how music is produced is more likely to compose than someone who is without understanding. In addition, unless the whole context of the child's development nourishes that kind of activity, creative endeavour is unlikely to take place.

It has been pointed out earlier that TALULAR help create a more meaningful context in which learning makes sense. Freeman's long-term study revealed that many children who were highly successful academically, particularly in the sciences, were found to be creatively crippled because of the narrow focus of their schooling. It is very easy to let children absorb more and more information and yet be creatively crippled as is the case in banking education. All children need exposure to imaginative participation in active problem solving in our everyday life and TALULAR have the potential to facilitate this to enhance creativity.

Motivation

TALULAR motivate because they are normally basic or straightforward. Since most of the TALULAR are readily available in the local environment, they are within the experience of the student and using them fulfils the principle of going from known to unknown, which captures learners' interest.

Mischel et al (1989) argue that motivation to learn is the seeking of a goal, and the willingness to put in the energy required to reach it. Motivation to learn is directly affected by social influences, primarily the family, as it moulds the child's earliest outlook. Also, the major emotional influence on motivation to become competent is self-esteem which starts in infancy, when good feelings about themselves enable babies to take control over their behaviour and expectations, and to associate learning with pleasure.

Multi-Talented

Whether an artist or a scientist, it is their creativity that counts in this selection

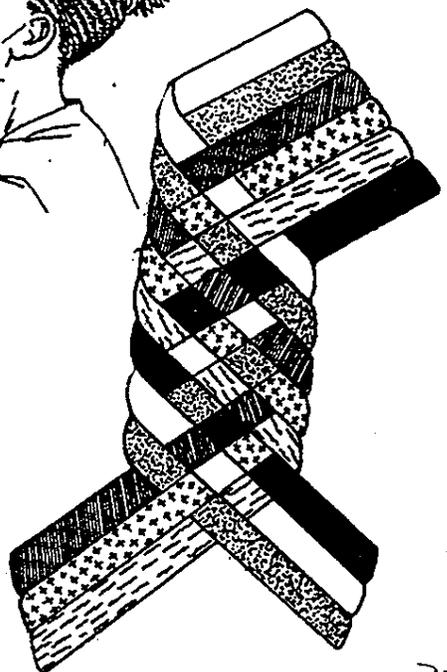


Encourage and value skills of our learners to promote their creativity



A creative teacher makes a creative class!

What has been used to make the animal??



According to Chipeta (1999), by nature children enjoy playing in groups or group activities. The teacher must use this characteristic of a child to promote group activities in class. It is through group work that children learn to tolerate the actions and ideas of each other. Group work includes solving problems in groups, discussing and debating over issues and sharing instructional resources. TALULAR play a crucial role in enhancing group work.

Chipeta further argues that children are motivated by a teacher who is well prepared. Teachers should plan their lessons. Planning means an orderly arrangement of things to be taught. Students who are taught by well prepared teachers understand school work more easily because they are motivated. Planning includes collecting relevant TALULAR and learning how and when to use these. In addition, attractive TALULAR will motivate the learners.

Variety

One of the rules for good teaching and good learning is that lessons should be varied. Lack of variety in the lesson can lead to monotonous and boredom. TALULAR are abundant in the local environment. Creation of a talular bank and a learning centre with varied TALULAR is very easy. A variety of TALULAR will enable the teacher to organize a variety of activities and contexts, which motivates the learners. Variety is the spice of life, so goes the saying.

Productivity

An educated community or society is a productive society because it is the well qualified doctors, engineers, teachers, and manufacturers in the community who enhance productivity and effective community development. These well qualified personnel and others join the community from schools that provide quality education. As said earlier TALULAR can help boost quality education through observation, analysis, manipulation and practical application of what students learn. In addition, the community is a talular resource, and community involvement in facilitating learning and skills development is essential in complementing teachers' efforts in the school. The school is a talular resource for the community. Students leave school and join the community. The community benefits from it and this evokes their interest in the education of their children.

Some of the ideas most useful to the community becoming productive are conditions necessary for growth, growth rates, energy and interdependence, symptoms and causes of disease. The community will become more aware of these ideas if there is sound education resulting from the school and the community collaborating in their efforts.

Transformation

Quality education transforms learners for the better. Quality education facilitates a positive change of knowledge, skills, attitudes and behaviour in learners. The absence of quality education, which partly emanates from lack of TALULAR, results into many learners leaving school deficient in knowledge, skills and adequate mastery of these. As highlighted earlier, use of a variety of TALULAR enhances good teaching and good learning which are attributes of quality education and quality education in turn promotes effective transformation.

Continuous Assessment (CA)

Continuous Assessment refers to a situation in the classroom whereby the teacher keeps track of learners' progress as individuals side by side all teaching and learning activities. Continuous assessment is ongoing and is based on observations of student performances. Continuous

assessment emphasizes pupils achievement, identification of learners' strengths and limitations, provision of remediation to those who have not reached the required level of mastery and enrichment for those who are doing well for further practice and reinforcement.

Education does not transform learners positively in that learners' problems are not addressed in good time. Some teachers say that they lack resources for use in assessment. They rely heavily on end-of-term or end-of-year tests. This problem is compounded by the presence of many learners resulting in very large classes. TALULAR promote continuous assessment because used paper is recycled and reused, records for keeping information about learners' progress are easily created. Storage facilities such as boxes, trays and folders are made available. Tasks for continuous assessment are stored securely so that the teacher has access to the tasks for immediate use. More work on continuous assessment will be discussed later in the manual.

Cost-effectiveness

TALULAR are affordable, often costing little or nothing, thus increasing the chances of good teaching and learning. Also, TALULAR are culturally acceptable as they come from the community or local environment. One advantage of this is that it is easy to mobilize the community and can effectively contribute towards improving educational quality as follows:

- fund raising activities to help buy needed equipment and other resources
- put up extra classrooms by involving local contractors and business persons
- professional people in the community can be invited to talk about their work or topics in their field of experience
- traditional leaders can be asked to give a detailed history of the area
- literate members may work side by side with teachers to teach literacy and numeracy
- field trips can be made to factories, farms, hospitals, and so on

TALULAR recognises community participation and contribution in an attempt to make education cost effective. This community involvement empowers people at the grassroots level, thus increasing local creativity and decentralization. It is argued however, that for schools to benefit from active community contribution, they should create an inviting climate for the community. Roles of various community groups and committees should be defined clearly. Also, find out the view of the community about areas that require improvement and working together in improving these.

Sustainability

TALULAR promote sustainability in a number of ways:

- establish a talular bank and effective use of the TALULAR will increase chances of sustainability of good teaching, good learning, learners' motivation, and variety in teaching.
- empowering at the grassroots level increases local creativity, as mentioned earlier, and chances of the school infrastructure, and the entire education system
- TALULAR are environmentally friendly, thus encouraging us to reduce litter, recycle and reuse things while emphasizing the value of resources in our local environment

Appreciation of the value of TALULAR will lead to many people supporting our efforts in our schools to boost quality education by contributing resources. This in turn, will promote sustainability of good teaching, good learning, quality education, and so on.

Success

TALULAR promote learners' success, particularly if a lot of attention is focused on the foregoing talular principles or themes. For instance, quality education is judged against teacher performance and learner performance. Where there is quality education, learners and teachers achieve a lot of success. Freeman (1992) states that motivating pupils to learn is the first priority of formal education; the single most important measure of its success is how far individuals are encouraged to continue learning, and to take responsibility for it themselves as adults. Also, knowing how well one is doing is a way of improving motivation through feedback in which a teacher can give a child the feeling of success.

Freeman further argues that the best kind of motivation is intrinsic, that is, motivation generated by interest or relevance in learning, and which is fired by children's belief in their own effectiveness. Such energizing assurance in one's ability to tackle a task comes best from positive personal experiences, especially from feedback that children have received on how well they did. However, external factors also play a vital role in motivating the learners. Such factors include rewards, praise, the teacher's cheerfulness, and commitment. Motivation influenced by external factors is called extrinsic motivation.

TALULAR are instrumental to bringing about success in teaching and learning because the teacher is able to:

- facilitate meaningful learning
- have learners apply their knowledge
- clearly state multiple objectives
- use learners' experiences as a learning resource
- not to view the classroom walls as a boundary
- use a variety of teaching approaches
- involve all learners in the learning process as a learning resource
- maximize opportunities for effective teaching and learning and minimizing constraints
- develop learners' confidence in their ability to investigate
- set clear criteria for what students are expected to achieve
- keep elaborate assessment records

Activity 2
Working in groups

- Discuss how the principles of TALULAR make the TALULAR SONG for 20 minutes
- In a plenary, sing the first 4 verses of the TALULAR SONG. The tune is provided.

Feedback

The TALULAR SONG comprises the themes or principles cited above as a summary. Singing it is a way of consolidating the principles as well as internalizing them.

UNIT 3

The community, a talular resource for the school

Introduction

Local communities in which schools are situated are expected to participate in managing the schools. The villages where children come from make the catchment area of each school. Freeman (1992) stresses the importance of establishing a cordial relationship between the school and the home. She argues that many learners are caught in the psychologically harmful dichotomy of 'Teacher says this' and 'Mother says that,' where teacher and mother never talk about their different approaches. Apart from the financial benefits of parents' involvement, schools which work closely with parents are often able to use the educational assistance which they give gladly and proudly. For instance, a parent who can listen to children read, take a class round a factory, or describe how a car engine works, is bringing the real world to the school. In addition, schools which deny the role of parents as educators or who fear that by opening the door to them, the status of their teachers will drop, appear to have little faith in their own expertise, which may be apparent in a greater degree of rigidity and control. The school staff are expected to communicate their school experiences with parents and vice versa, for mutual benefit.

Objectives

By the end of this unit, you will be able to:

- state in what way the school is a talular resource for the community
- describe different ways in which the community is a talular resource for the school
- define a community school
- explain the importance of visits to the community by the school staff

The school, a talular resource for the community

The school does not operate in a social vacuum. It is in continuous interaction with the surrounding society. Most parents know the purposes for schools and this awareness of purposes urges them to send their children to school. What is the role of the school in this context?

Activity 1

Working in groups

- discuss in what way the school is a talular resource for the community
- describe various ways in which the school can create a conducive atmosphere for the community

Report your work in a plenary after 20 minutes. Reporting time is 20 minutes.

Feedback

According to Grieve (1977) the community is like a brick wall. The learners in school become the bricks for building the wall, when they leave school. The learners' education is the mortar for holding the bricks in the wall. Grieve further argues that if the mortar is well made, the bricks are held firmly in the wall and the result is a durable wall. If the mortar is not well made, the bricks are not held firmly and the wall collapses. Grieve refers to quality education as good mortar that holds the bricks firmly, and make a strong wall. Also, he refers to poor education as mortar that is not well made and does not hold the bricks firmly in the wall.

Grieve's metaphor of the brick wall may be interpreted in terms of a situation in which the school sends either well qualified or underqualified school learners to the community. In the first place, it is the contribution of school leavers to the community that makes the school a talular resource for the community. Secondly, school leavers with quality education make a well educated community that becomes productive and development conscious. Conversely, school leavers without sound education make an under-educated community that becomes less productive and less development conscious.

Once parents realise the school is an integral part of community development become interested in their children's schooling. The school and parents are the two most important influences on the learner. Grieve further argues that when either these educational influences is inadequate, the child is the loser. Both the home and the school should be equally free to complement each other, where there seems to be some lack of provision.

The school can create a conducive atmosphere for members of the community in the following ways:

- establishing adult literacy classes
- letting members of the community use school buildings for meetings
- inviting parents to the school to attend 'Open Day' celebrations in which staff and learners display what happens in the school such as lesson delivery, class work, crafts, and plays
- inviting community sports teams to play jointly with school teams
- compiling the history of the area and making the information accessible to the members of the community. For instance, school groups can trace the origins of cultural elements such as food, songs, dances, dress, weapons, implements and crafts
- making visits into the community to follow-up pupils' absenteeism, illness and share experiences on problems that affect learners at school, as well as briefing parents on pupil performance
- arranging interviews of some members of the community. For example, students may interview village heads on their duties or the history of the area, farmers on issues related to Agriculture and medical personnel on issues related to health.

The community, a talular resource for the school

Despite government efforts to increase resources to education in order to realise the goal of quality education, the sector still suffers from under funding, mainly due to rapid increases in the school-age population and rising costs in goods and services. This funding shortage has resulted in a low physical capital formation as well as a shortage of teachers, teachers' houses, and teaching and learning resources.

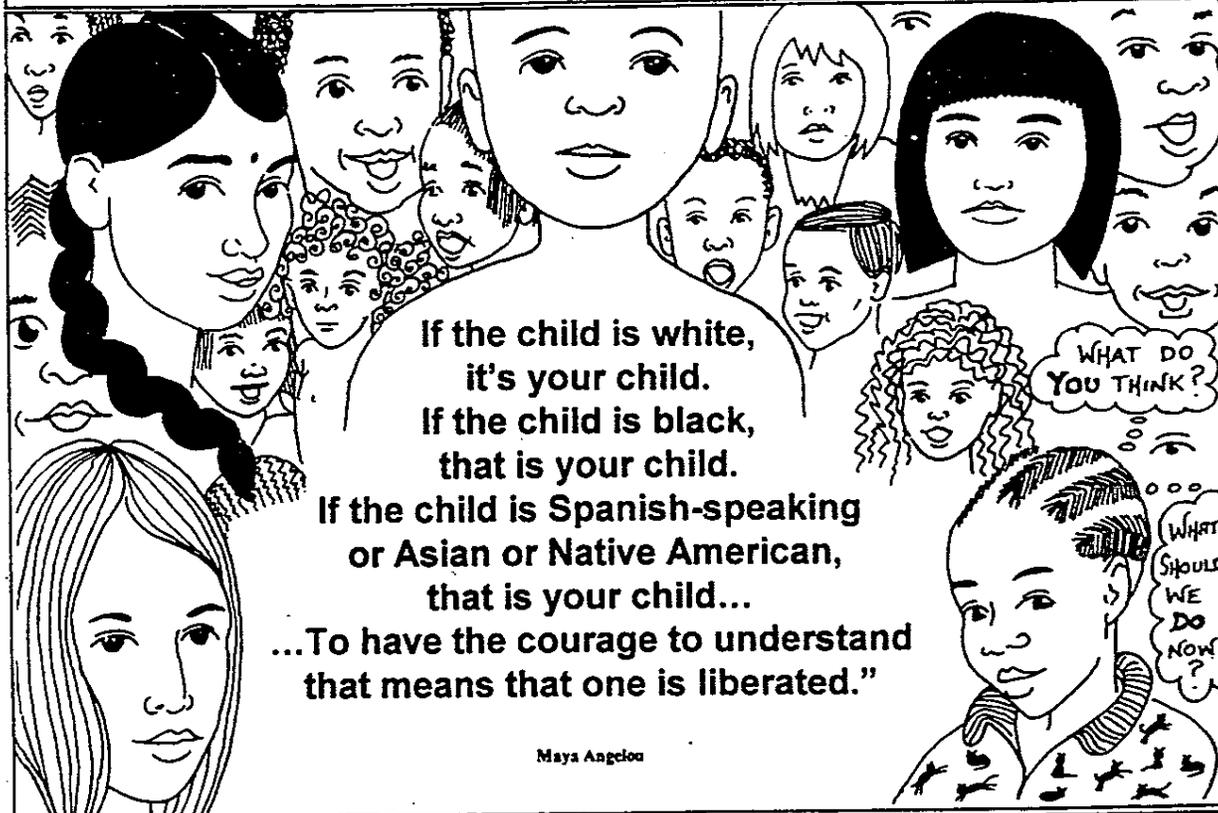
<p>Activity 2</p> <p>Working in groups</p> <ul style="list-style-type: none"> • discuss the statement: <u>The community a talular resource for the school</u> • describe various ways in which the community can support school management <p>Report your work in a plenary after 20 minutes. Reporting time is 25 minutes.</p>

Feedback

As said earlier, TALULAR includes human, animal, plant, material and non-material resources. The community can support the school with all these types of TALULAR. In this context, the community is regarded as a resource for the school. Also, a good home produces a secure child.

TALULAR

That is your child



Maya Angelou

TALULAR means "Teaching And Learning Using Locally Available Resources" Maya Angelou (words) and Andy Byers Not-for-profit copying welcomed. No 12

TALULAR

It takes a community to educate a child



TALULAR

It takes a community to educate a child.

I WISH I WAS AS WISE AS MY GRANDMOTHER

SOME THINGS CANNOT BE LEARNT IN SCHOOL

EDUCATION IS MORE THAN WHAT HAPPENS IN OUR SCHOOL

WHAT PART SHOULD A COMMUNITY PLAY?

EVERYONE HAS A PART TO PLAY

WHAT DO YOU THINK?

EDUCATION IS MORE THAN REMEMBERING KNOWLEDGE

EVERYONE CAN TEACH SOMEONE SOMETHING

How many MILLILITRES DO WE HAVE TO ADD?

NOT A LOT

WE'RE USING A STERILE SYRINGE (AND BABY MILK SPOON TO MEASURE)

MY SUGAR CANE IS LONGER

Peer teaching

Prepare a ten minute lesson plan in groups on how you can introduce capacity to pupils. Choose one to peer teach.



People are talular teaching and leaning Resources

LONG WIDE SHALLOW DEEP SHORT TALL

Where parents are happy, well-balanced, with a sense of purpose pervading their lives, they will be able to provide the essential parental care necessary for the stability and confidence of children. Secure children are generally straight-forward and dependable, enthusiastic, responsive, positive in their outlook, because they are so readily accepted and supported by their parents without fears of growing up and taking their respective positions both in school and society.

Ellis (1973) argues that the value of a good home cannot be overstressed, but it is important to understand that two children from the same family do not share an identical home environment. The birth of the younger child changed the existing pattern for the older child, and parents certainly are not the same to their various offspring. It is possible, therefore, for children from the same home to have been influenced, at least peripherally, in different ways. Even so, the parent-child interactions in the early years based upon love and security will produce the foundations of good character, for the reactions engendered in the child will influence the developing personality.

Where security is threatened by emotional deprivation or neglect, such unsatisfactory conditions will soon be revealed in the child's behaviour. The deprived child is likely to react as one filled with fear and suspicion in the presence of adults s/he has not met before; but there is no such distrust in the child who has gained confidence, based on the stability of his or her home and the constant reassurance available there. For instance, from the mother, s/he has gained the essential self-assurance for establishing sound personal relationships with people of all ages.

In school the secure child can concentrate on the task in hand with no need to retreat from the reality of the world into the realms of fantasy and day dreams. By virtue of emotional stability s/he can even meet frustration without undue upset, and this is a particularly valuable asset with those of limited ability. Ellis stresses the point that calm and attentive, relaxed and cheerful s/he will be able to apply his or her physical and mental energy to the pursuit of his or her own particular interests and in so doing realise and accept his or her strengths with complete composure. Also, in evaluating him/herself s/he will also come to accept his or her own limitations with comparable equanimity, and for the average learner this quality will prove invaluable.

What can a teacher do?

As the child grows up the influences of heredity and environment will both supplement and complement each other in the process. Holt (1961) articulates that the genetic factors of heredity have to be accepted, but parents in the home and teachers in the school, can control these respective environments and in so doing influence for good or ill the security of the child.

The teacher must of necessity be aware of the various emotional difficulties that children have to face both at school and at home, and learn to recognize the signs and symptoms of disturbances which result from the various pressures of life. Working on the principle that prevention is better than cure the teacher must look beyond the outward manifestation in certain forms such as truancy, cheating, exhibitionism, aggression, hostility and withdrawal, and seek to find the underlying reasons in liaison with parents in the local community.

Unity in cultural diversity

In most countries, there are people of various cultures. The existence of different cultures is called cultural diversity. Aspects that promote unity in the communities include language, music and dance, marriage and family values, rituals, occupation, religion and moral values, dress, food, art and crafts, housing, folklore, proverbs and riddles.

Culture is one of the intangible non-material resources that can facilitate teaching and learning. Every teacher should be aware of the culture of the local community in which the school is situated. As Fatunwa (1982) points out, every human society has developed mechanisms for inducting its young into its culture. The induction is an education process for perpetuation of the society. Although societies may vary in the way they structure and conduct their schools, they have established purposes of education. It is in this light that the teacher should understand the culture that exists in the community that s/he serves in order to move towards achieving the set goals of society.

Language

Language is one of the aspects of culture that promote unity. The languages spoken by different ethnic groups include certain words which are common. For example, in Malawi:

- **madzi** – Chichewa, **maji** – Chitumbuka, **mesi** – Chiyao
(water)
- **moto** – Chichewa **moto** – Chitumbuka **moto** – Chiyao
(fire)
- **Mwinyu** – Chilomwe, **munya** – Chisena
(salt)
- **Kuteka maji** – Chitumbuka, **Kuteka mesi** – Chiyao
(drawing water)

The similarities of the words in form and meaning indicate that the different ethnic groups come from the same cultural background. They also illustrate the unity that exists among the different ethnic groups.

Music and dances

The music and dances performed by different ethnic groups share certain cultural aspects. For instance in Malawi, vimbuzo among the Tumbuka, malombo and gule wamkulu among the Mang'anja and the Chewa are commonly used for curing various illnesses and appeasing ancestral spirits. Although the dances and music are different, their purposes are similar. In music and dance, various instruments are used. Almost any Malawian can dance to a tune of music from any other ethnic group.

Rites of passage

The rites of passage are ceremonies marking a new stage in one's life practised by certain ethnic groups. In Malawi the most common ones are rituals of birth, adolescence, marriage, and funerals. These mark stages in the life of an individual. The passing from one stage to another is regarded as an important event. Some ethnic groups perform initiation ceremonies. Generally, what happens at these ceremonies is common to most ethnic groups.

TALULAR People

EVERYONE DIFFERENT...

...EVERYONE SPECIAL!

TALULAR means "Teaching And Learning Using Locally Available Resources" Isaiah Mphande and Andy Byers Not-for-profit copying welcomed

TALULAR Born free and equal

I'M HIV POSITIVE

I GO TO A GOOD SCHOOL

I'M DISABLED

I'M POOR

I'M GOOD AT THIS

I'M OLD

I'M A REFUGEE

I'M AN ORPHAN

I'M A CHRISTIAN

I'M A GIRL

I'M VERY RICH

I HOLD THE POWER OF LIFE AND DEATH

I'M A MUSLIM

I WASN'T BORN HERE

I'M THE PRESIDENT

I HAVE A UNIVERSITY DEGREE

I'M POLICE

All human beings are born free and equal in dignity and rights.

THAT MEANS EVERYBODY!

TALULAR

Facing life's big questions

WHY WAS I BORN?

IS THERE REALLY A GOD?

WHAT IS GOOD?

WHY CAN'T I LIVE FOREVER?

WHY DO WE HAVE TO GROW OLD?

DOES IT REALLY MATTER HOW I LIVE MY LIFE?

WHY DO PEOPLE SUFFER?

WHY DO BAD THINGS HAPPEN TO GOOD PEOPLE?

WHY CAN'T I BE RICH?

WHY ARE MANY RICH PEOPLE UNHAPPY?

WHY DO WE ALL DIE?

IS THERE SUCH A THING AS EVIL?

HOW DO CHRISTIANS, MUSLIMS, HINDUS, AND TRADITIONAL BELIEVERS ANSWER THESE QUESTIONS?

HOW DO CULTURES AROUND THE WORLD ANSWER THESE QUESTIONS?

IS THERE LIFE AFTER DEATH?

THE NEED FOR A NEW TYPE OF RE!

T.A.L.U.L.A.R. stands for "Teaching And Learning Using Locally Available Resources" Andy Byers and Paul Ndunguru Not-for-profit copying welcomed

TALULAR

Who influences us?

TEACHERS

CULTURE

MUSIC

FRIENDS

FAMILY

SPORT

LOCAL COMMUNITY

BOOKS

RELIGION

VIDEO AND TV

SCHOOL

ADVERTISING

PEERS

NEWSPAPERS MAGAZINES

LAWS

ELDER(S)

PARENT(S)

GOVERNMENT

WHAT DO YOU THINK?

PREPARING FOR THE FUTURE

Marriage and family values

Marriage is the beginning of a family which is the basic unit of society. All ethnic groups respect a person who is married and has a family, hence, they follow marriage procedures. In Malawi, ethnic groups hold similar family values which include cooperation, dignity for work, parental responsibility, faithfulness, diligence, and mutual love. Whether it is in the patrilineal or matrilineal system of marriage, it is normally the man who proposes marriage to a woman. People from different ethnic groups can marry one another in Malawi. The marriages between different ethnic groups promote unity among Malawians.

Moral values

All ethnic groups uphold common values. These include respect for life, parents, elders and a sense of self-respect. They do not approve of any immorality such as stealing, rape, casual sex and committing homicide.

Religion

All ethnic groups in Malawi believe in a supernatural being and life after death. In certain circumstances such as disasters or when a crisis occurs the various religions come together to worship. Also, several people from different ethnic groups belong to the same religious sect.

Occupation

Traditionally, people from different ethnic groups earn their living by farming, fishing, carving, mat and basket making, smelting and pottery. This trading demonstrates the interdependence of the ethnic groups and promotes cooperation and unity.

A country with many ethnic groups has a rich cultural heritage. The cultural heritage has both common and different aspects. Common cultural aspects should be upheld because they promote a sense of patriotism, unity, peace, and development. Teachers should be conversant with the importance of unity in cultural diversity in order to assist communities in the task of inculcating culture in the youths. Furthermore, culture is gratifying, that is, certain aspects of culture become obsolete and are replaced with new ones to suit the current circumstances. Teachers should become aware of which aspects of culture have changed, since culture is dynamic, which means it is always changing. For example, eating habits or dressing may change as a result of travel or religion.

Community support to schools

The realization that education is crucial for wage employment has motivated parents to send their children to school. It is this motivation that urges communities to participate actively in resourcing the schools as follows:

- sending children to school in good time
- feeding children adequately in readiness for school activities
- assisting children to read, write and solve mathematics problems
- assisting children to develop acceptable behaviour
- building and maintaining school blocks and latrines
- providing financial assistance whenever necessary
- providing the school with land for sports and agricultural activities
- providing supplementary reading resources such as books, magazines and newspapers
- putting special attention to children with disabilities so as to prosper and excel in their education

- emphasizing gender equality and equity and putting special attention to girls so as to prosper in their education
- working as resource persons when invited, some members of the community may give talks on roles of their positions such as village head, police officer, doctor and nurse
- teaching pupils skills and techniques of making crafts and other articles of art
- teaching students some traditional songs and dances
- providing furniture
- providing talular shelters where lessons are conducted outside, made of poles, bamboos, reeds and thatched with plastic sheets and grass.
- providing talular seats such as stools made from logs of trees, mats, sacks and plastic sheets instead of letting students sit directly on the floor.

Non-governmental organizations (NGOs) play a crucial role by providing back-up services in school construction and rehabilitation of centres for the handicapped. They also provide basic health education through outreach programmes. Churches and mosques are a nucleus of their local communities. These provide a meeting point for imparting moral and religious instruction as well as serving as a medium for strategic instructional messages from the formal education system. These institutions together with political campaigns also help boost enrolment in schools.

Community schools

A community school is a school recently developed to bridge the gap between home and school, which exists in several countries (Freeman, 1992). In the most open example, parents and children are able to sit in lessons together, including evening tuition and participation in other activities, which are also open to everyone. Although still partly experimental, this effort at educating a whole community could have a beneficial effect both practical and psychological, on all concerned. Both the school and the community, are engaged in continuous interaction for mutual benefit.

Normally, community schools are situated in what are called educational priority areas. The educational priority area is a socially and administratively viable unit through which to apply the principle of positive discrimination. According to Plowden (1993) the idea of community schools has been shown to have greater substance and powerful implications for community regeneration. There are practical ways of improving the partnership between families and schools. Action-research is an effective method of policy formation and practical innovation. Schools benefit a lot from this symbiosis that is, living together for mutual benefit.

UNIT 4

Drawing skills, a talular resource for classroom communication

Introduction

Classroom communication is enhanced by visuals, either through objects or illustrations. Visuals are resources that can be used in a lesson for pupils to see what the teacher is describing. Illustrations are drawings on the chalkboard or on chart paper. The art of drawing for classroom communication is extremely important to teachers and those who are interested in effective visual communication. Unfortunately, drawing is an underestimated talular resource because many teachers say drawing is difficult because they are not artists. This unit is intended to demonstrate how drawing can be made simple.

Objectives

By the end of this unit, you will be able to:

- define drawing
- define proportion
- do simple drawing exercises for practise
- apply knowledge of drawing to different teaching situations

The meaning of drawing

In order to make drawing simple, it is important to understand the meaning of drawing and what it entails. Emphasis is put on exercises that promote flexibility of the hand, freehand drawing, and the fact that the best drawings are made when the artist relaxes his/her body and limbs. The basic structures that constitute the drawing alphabet make it easy to draw step-by-step by simply joining lines to create desired objects.

Activity 1

Working in groups:

- define drawing
- describe the factors to consider in order to develop drawing skills.

Report your work in a plenary after 15 minutes. Reporting time is 20 minutes.

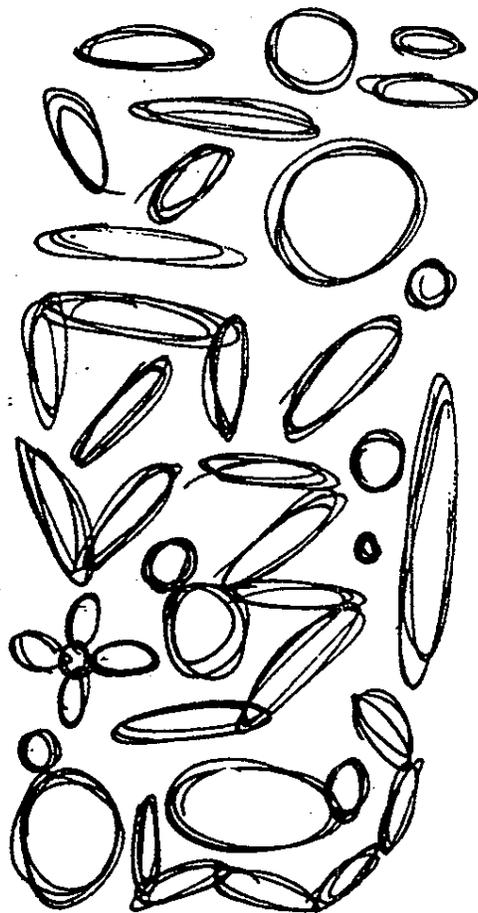
Feedback

- Drawing should be defined as the organisation or arrangement of lines.
- Arrangement of lines refers to joining lines such as vertical, horizontal, slanting, zigzag and curved.
- The basic shapes produced by joining lines make the drawing alphabet.
- In order to make drawing simple, an artist draws the general outline of an object first and adds details later.
- The best drawings are made when the artist relaxes his or her body and limbs.
- Everyone can draw, only that those whose drawing skills are dormant or latent appear less artistic and those whose drawing skills are active or practised are more artistic.

Freehand drawing: an underestimated aid

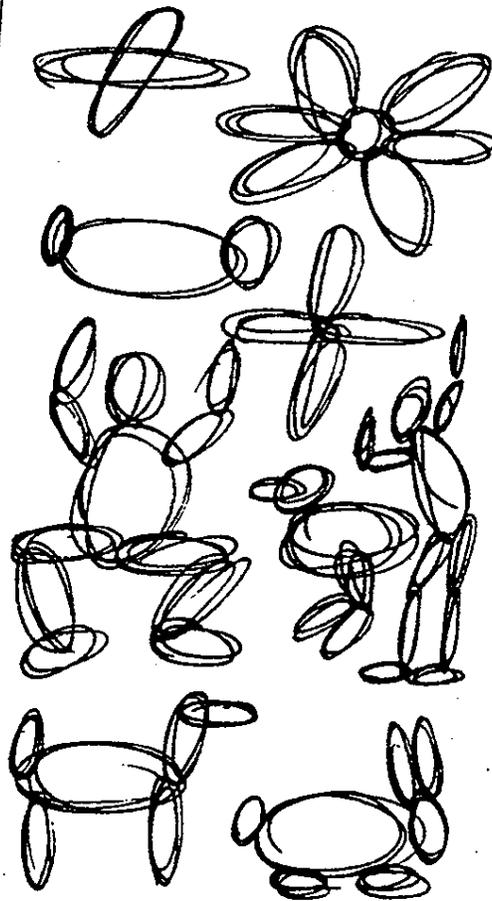
The art of drawing for communication is important to teachers and those who are engaged in the delivery of instructions in many ways. The introductory exercises here are a stage by stage approach to simple drawing. Drawings should be defined as the **organisation and joining of line structures**. The best drawings are made when the artist relaxes the body and limbs.

Relax and try these to start:



The other important note is the *size*. Make drawings big, too small is restrictive in terms of development and advancement, muscle flexibility work better with sizeable artwork therefore self imposed restrictions should be avoided throughout the entire exercise. Allow the body and limbs to move *freely* at a good *speed*.

Now try to work on these structures fast:



Using the drawing alphabet

The drawing alphabet comprises lines and basic structures used to create simple drawings. Examples of any possible shapes you can make with the basic structures mark the beginning of your ability to draw. There is no limit to the number of shapes you can produce. The sky is the limit, so goes the saying.

Activity 2

Working in groups:

- define proportion
- practise drawing basic structures and geometrical shapes such as rectangles, squares, triangles, cones, circles, cylinders, spheres, and cuboids.

Display your work on your tables, chairs, walls or on the floor after 20 minutes. Time for displaying the work is 15 minutes.

Feedback

- Proportion is the relative size of an object. This means the size of what is drawn compared to other parts or objects around it.
- Make drawings big. Too small is restrictive in terms of developing and advancing a drawing.
- Practise regularly throughout the period you are engaged in drawing activities and application of drawing skills in particular contexts.
- Draw freehand as much as possible to develop confidence.
- Allow the body and limbs to move freely at a good speed.
- Do not cancel a drawing unnecessarily.
- Use your imagination to discover other possibilities in coming up with other shapes
- You can use a pencil, charcoal, chalk, or pen to make your drawings.
- Many household objects usually have regular lines, especially straight lines and smooth curves.
- More complicated shapes can be built up from simple shapes such as square boxes or spheres, circles or cylinders, triangles, cones, and pyramids.

Drawing other things step-by-step

The basic structures and geometrical shapes are very important in drawing. They create a starting point for other drawings by combining selected or appropriate structures that make meaningful representations.

Activity 3

Working in groups:

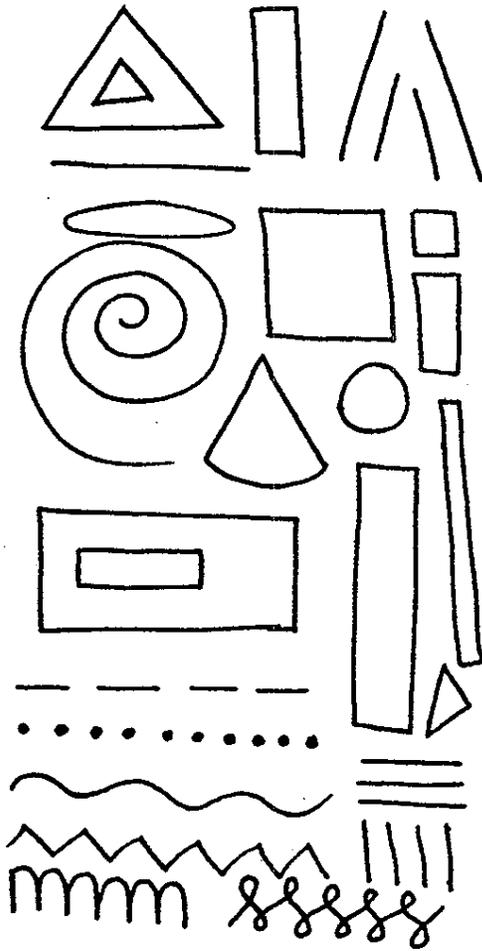
- discuss why it is important to draw something step-by-step
- list down the basic structures you would use to draw a human figure step-by-step
- draw some matchstick figures
- draw a bird step-by-step

Display your work after 20 minutes. Time for displaying your work is 15 minutes.

Feedback

Human figures and animal figures are often regarded as the most difficult to draw because they have complicated shapes and can move into a considerable diversity of positions. Simple methods of drawing make the drawing of human and animal figures less frightening. Thinking of the general outline or the whole first before adding details is the norm. Drawing anything step-by-step simplifies the process of coming up with drawings. For example, the human figure may

Drawing alphabet

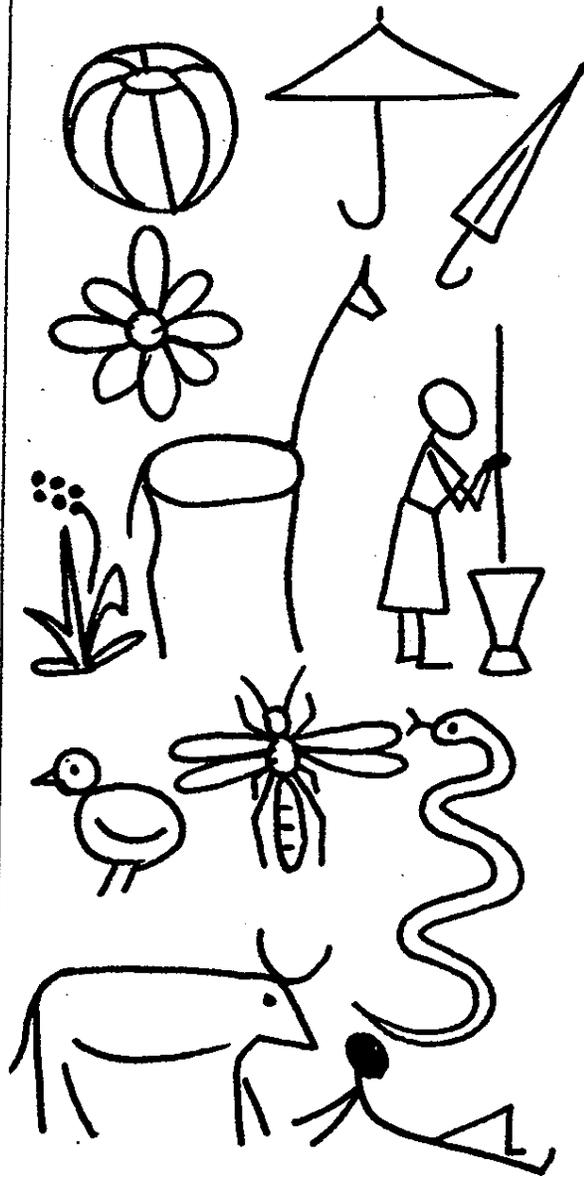


The basic structures that constitute the drawing alphabet make it easy to draw by simply joining lines and structures to create desired objects.

Continuous practice of the alphabet is the key to simple drawing that should compliment the communication process while at the same time enhancing learning.

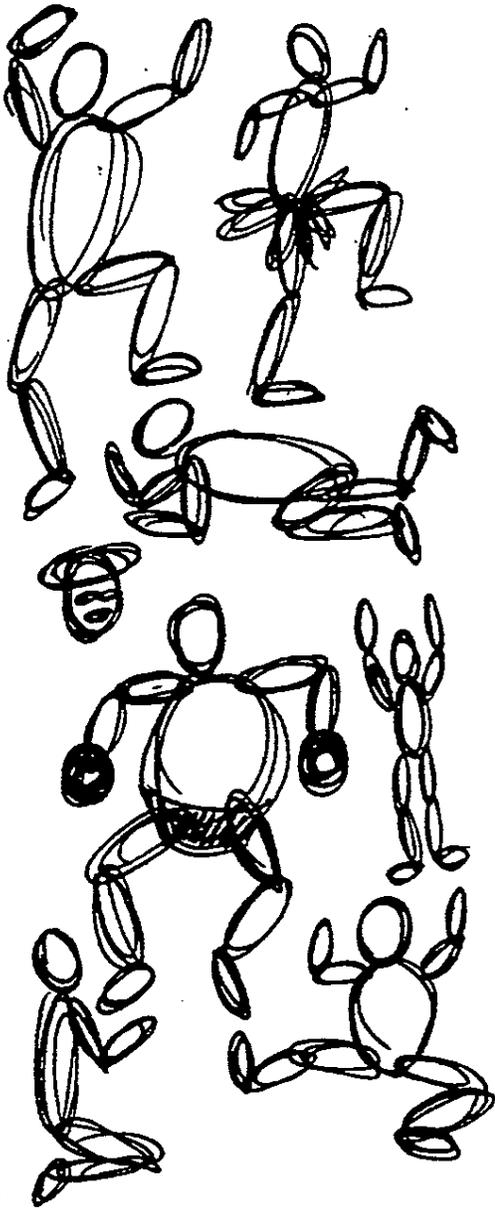
Using the drawing alphabet

The examples here do not exhaust the list of possible structures; there are many more. The alphabet can be exploited to accomplish more and the sky is the limit.



The examples mark the beginning of your ability to draw.

Hand flexibility exercises



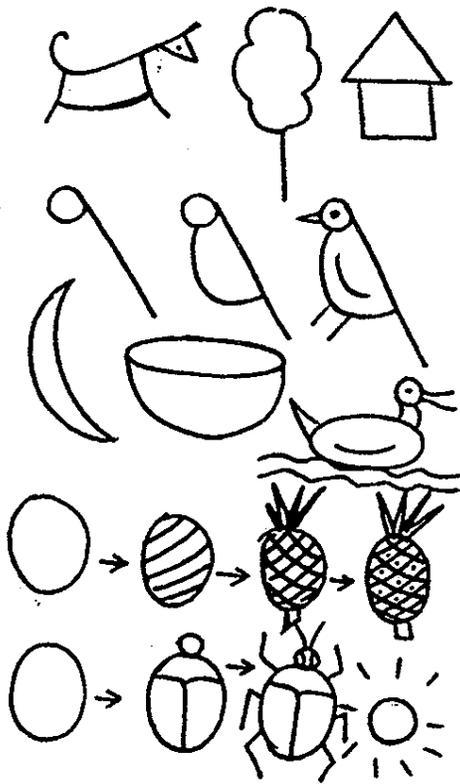
Your own place to try!

NOW IT IS
YOUR TURN
TO TRY!



Drawing and basic structures

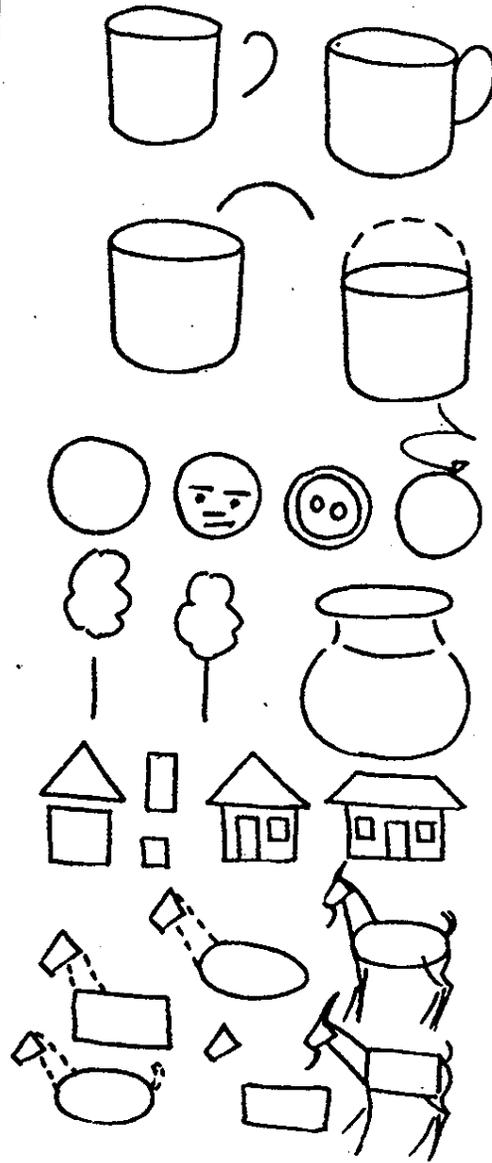
The basic structures are the most important elements so far as drawing and writing are concerned. Regular practice is required throughout one's professional life. It is a matter of continued freehand practice to be able to draw any desired object, figure or subject.



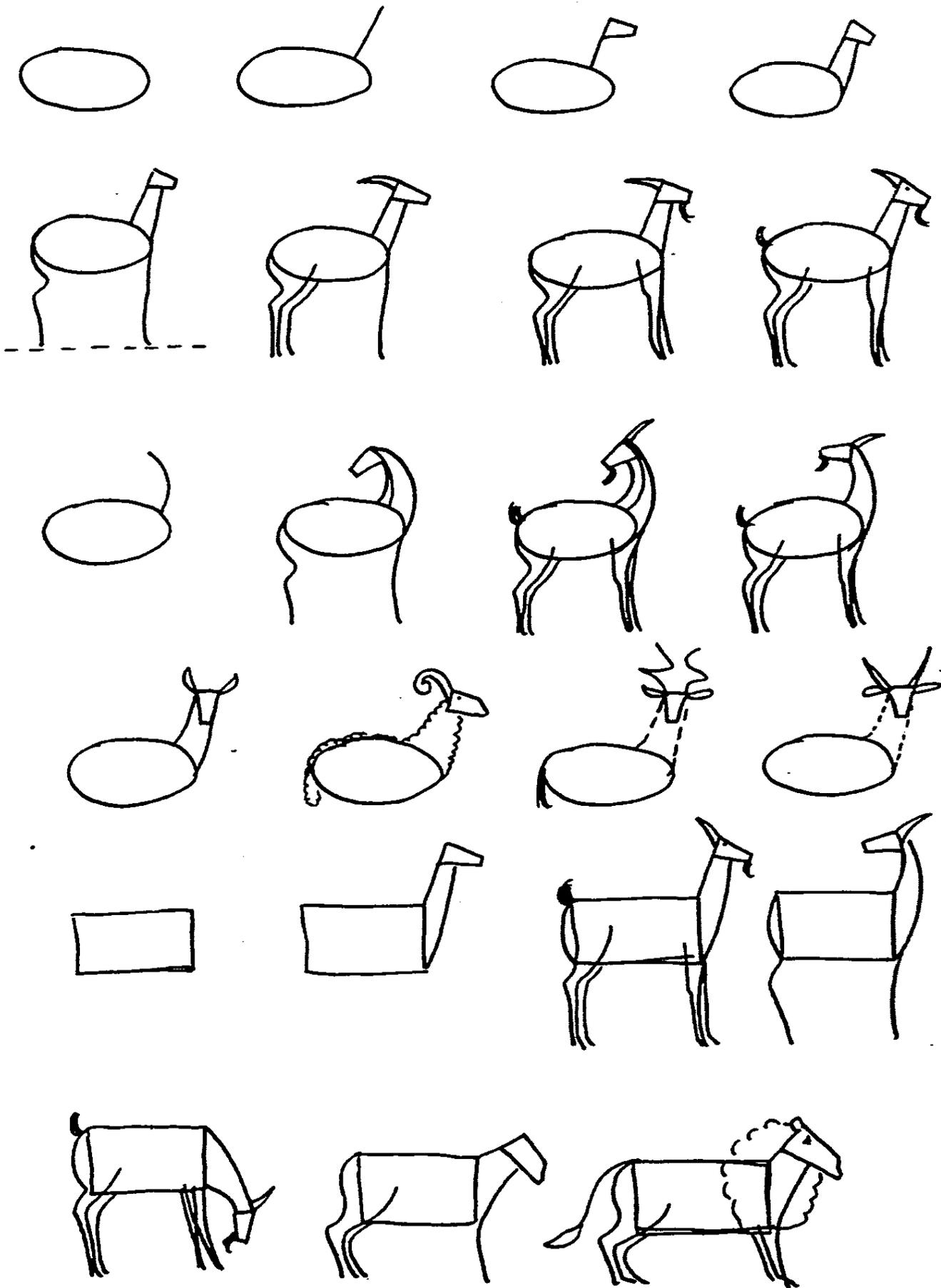
Chalkboard work or any written work, its perfection and quality depends on the nature of foundation.

More structures

The easier learnt, the simpler and easier taught.



Therefore, drawing should be seen as a combination of selected structures that make meaningful representations.

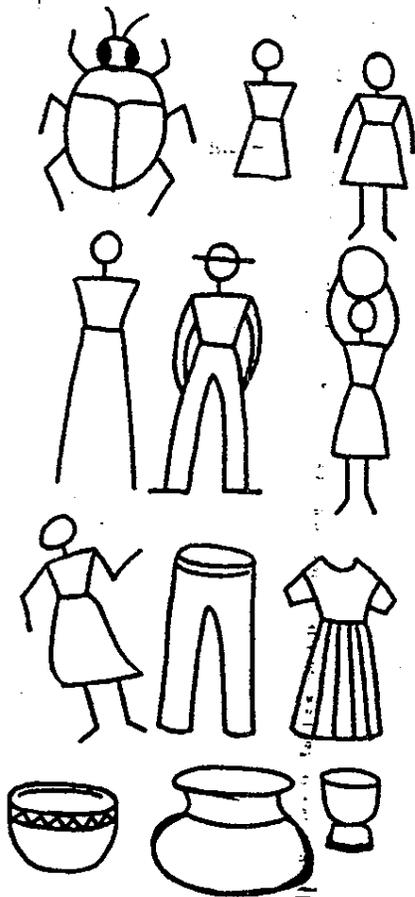


Step by step drawing

Below is step by step drawing of some common objects.



Even here, drawing is still the organisation of lines.

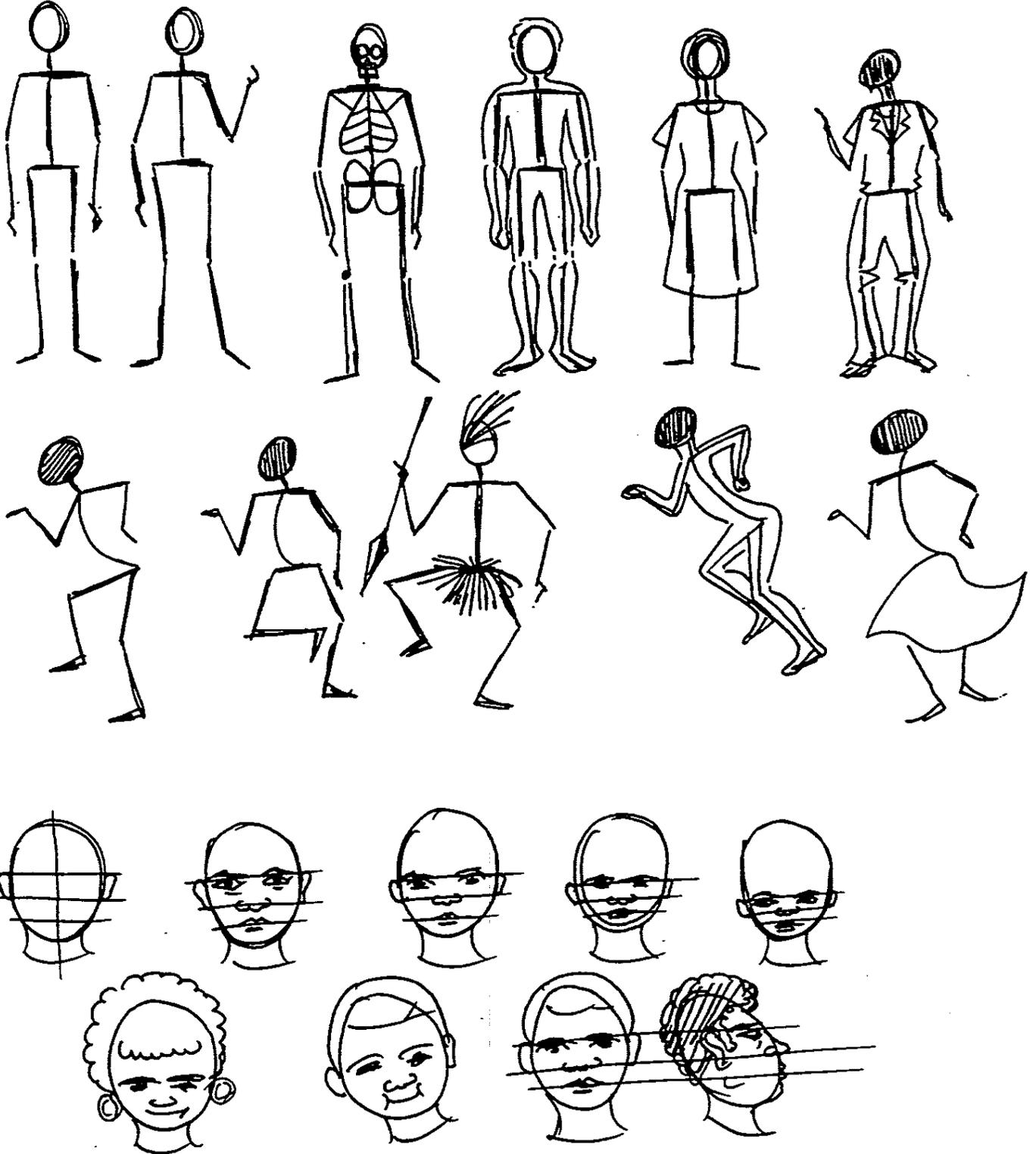


Even here, drawing is still the organisation of lines.

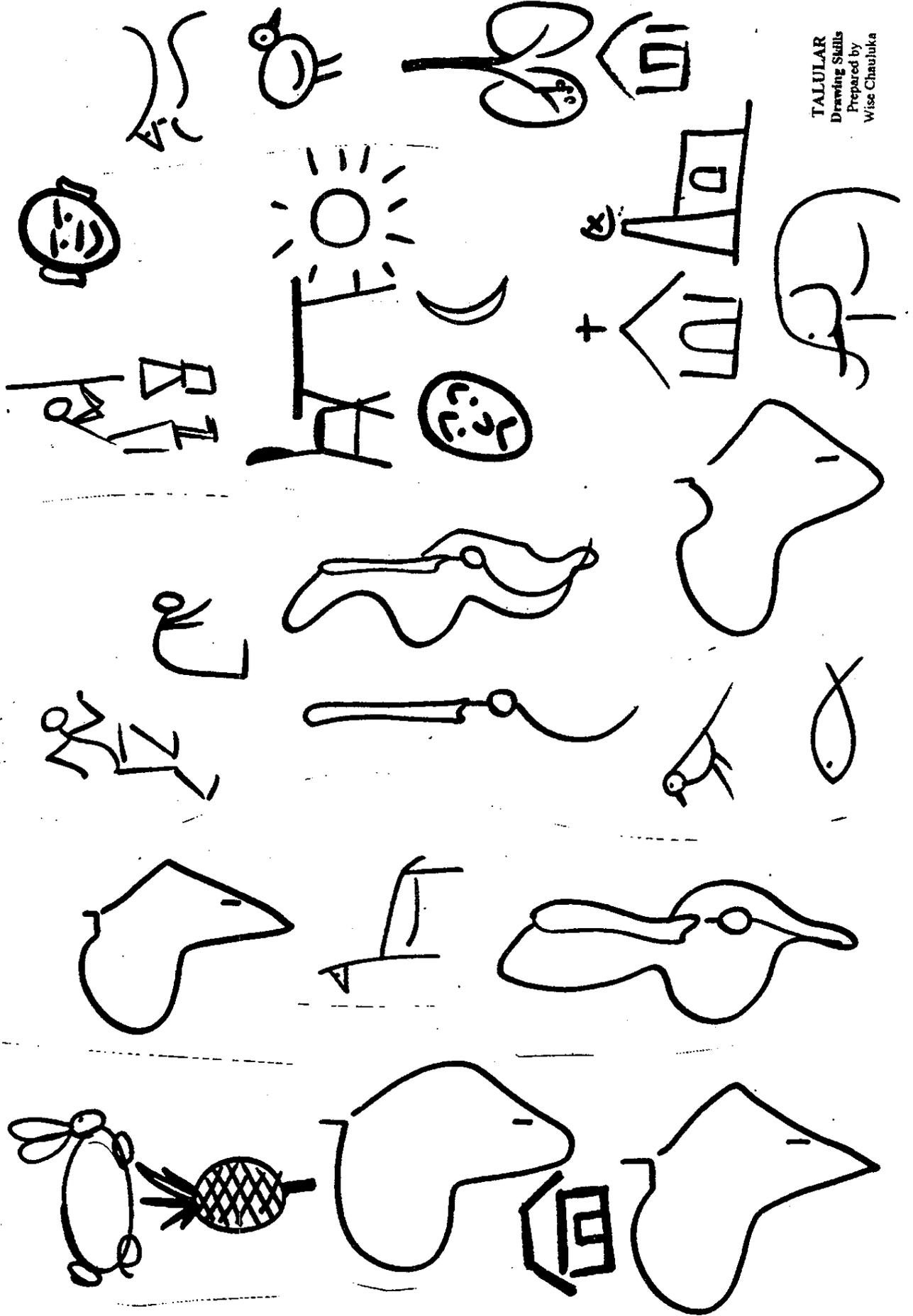


Anyone can learn to draw various forms of objects using this technique.

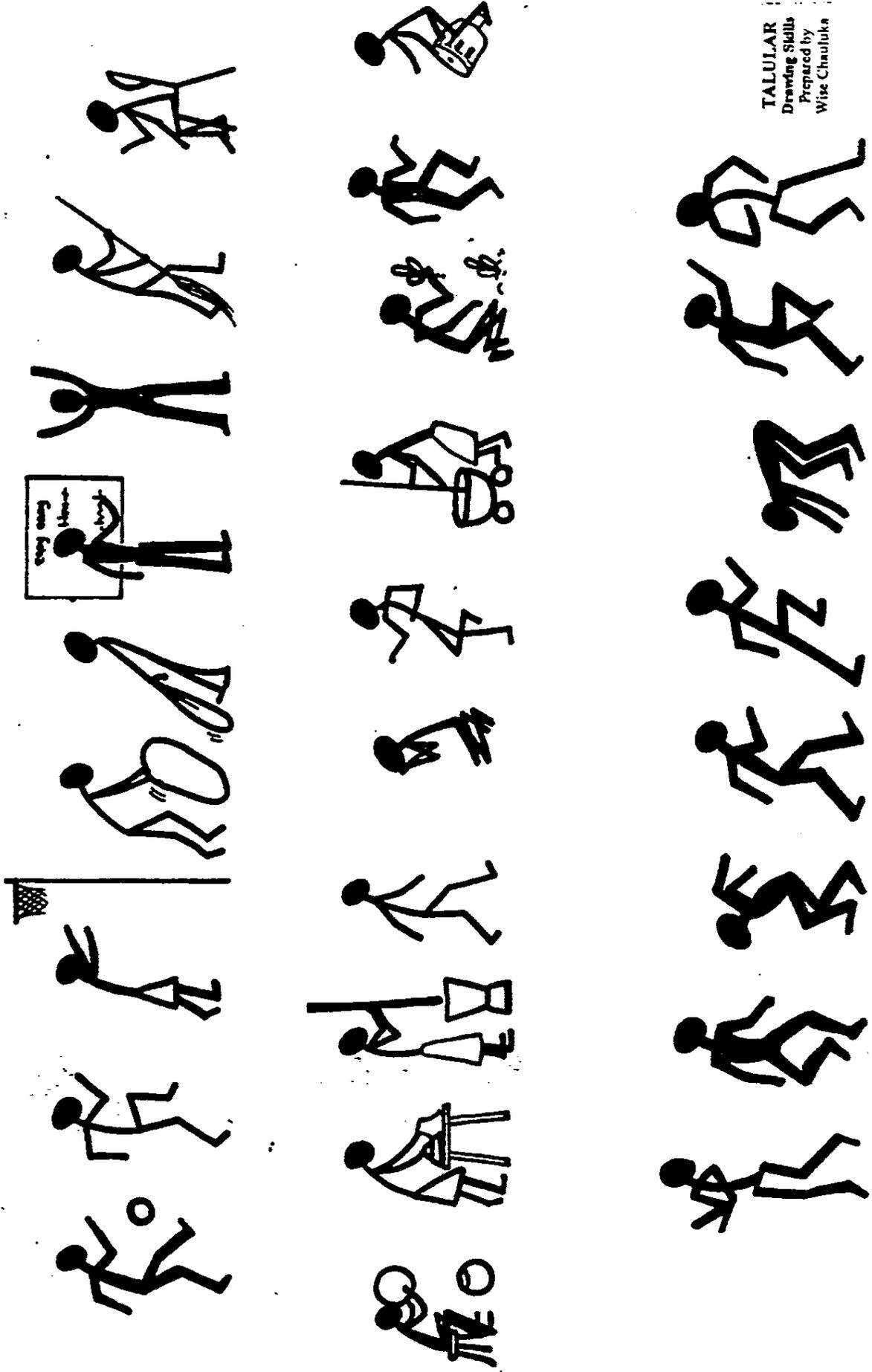
FOR MORE PRACTICE



TALULAR
Drawing Skills
Prepared by
Wise Chauhuka



EXAMPLES



basically be made up of three ovals, two curved lines and some lines for the limbs. This can be summarized as:

- head – small oval
- chest – a big oval
- hips – a small oval
- neck – curved lines
- spine – long, curved line
- limbs – simple lines
- foot – a triangle



The body outline can then be added to give the frame some flesh. Finally, clothes may be added to complete the figure. Birds and other animals can be drawn from basic shapes step-by-step.

Drawing action matchstick figures

Teachers often need illustrations to make a point clearer or reduce the amount of talking when explaining something. Action matchstick figures drawn quickly are equally as effective as advanced action figures. Matchstick figures are simple and time is saved for actual teaching, instead of drawing an advanced figure and turn the lesson into a fine arts lesson, unnecessarily.

Activity 4

Working in groups:

- draw matchstick figures to illustrate running, kicking a ball, digging, jumping, dancing, cooking and writing.
- add other things such as houses, trees, mountains and birds flying to create background for the matchstick figures.

Display your work on your tables, chairs, walls or floor after 20 minutes. Time for displaying your work is 15 minutes.

Activity 5

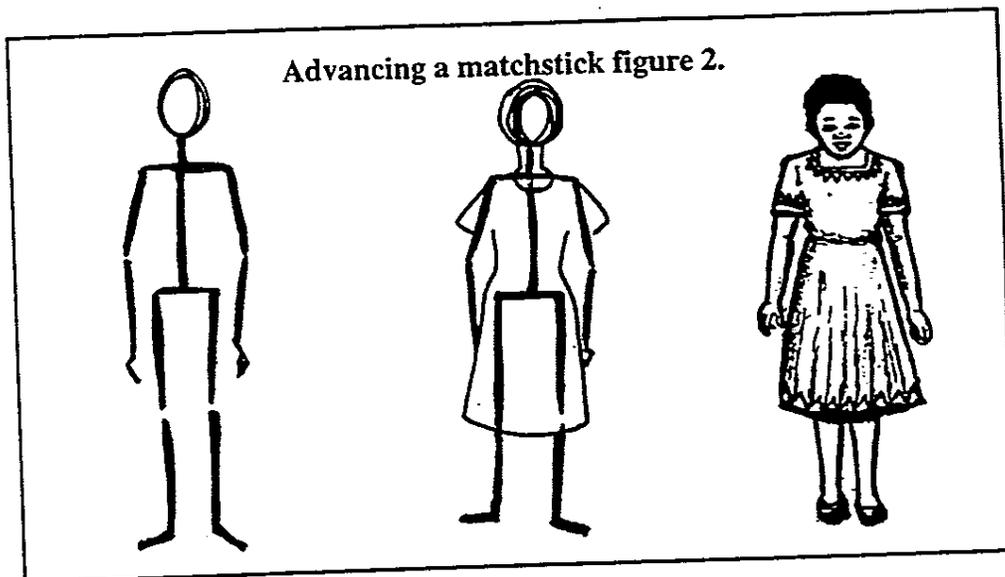
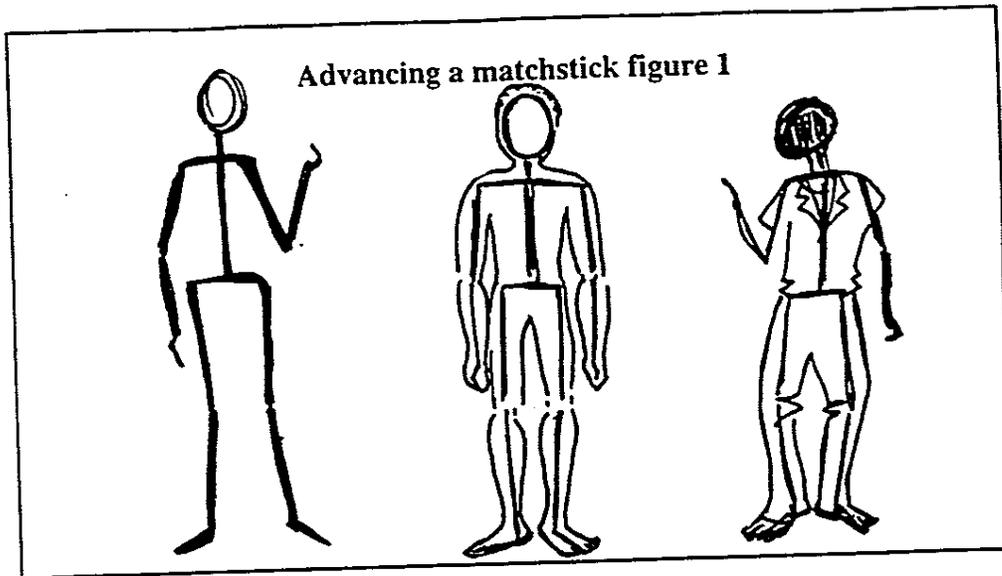
Working in groups:

- draw a matchstick figure with the body parts such as head, neck, trunk, arms, hands, legs and feet shown.
- add a few more lines and change the matchstick figure into a woman.
- draw another matchstick figure and change it into a man.

Display your work on your tables, chairs, walls or floor after 30 minutes. Time for displaying your work is 15 minutes.

Feedback

- A well balanced matchstick figure is called an advanced matchstick figure because it is close to a completed human figure.
- An advanced matchstick figure is drawn proportionally, which contributes to its balance.



Drawing and shading

Shading can be done in pencil or charcoal to improve the impact of a drawing. When shading, use a soft lead pencil or sharpened charcoal to give a wide range of tones from light grey to dense black. Tone refers to a quality of colour or shading.

Activity 6

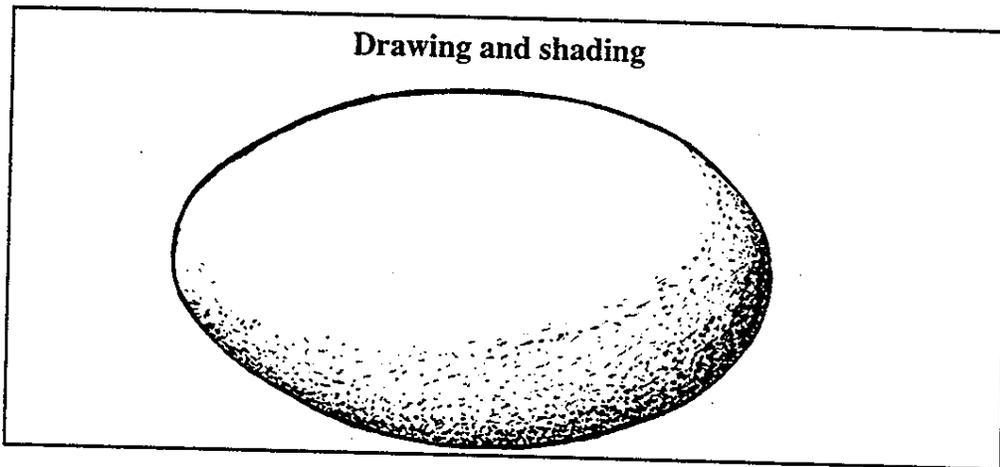
Working individually:

- draw a tin, a pot, a cup and a bucket
- find a partner and discuss types of shading
- shade your drawings to indicate sources of light

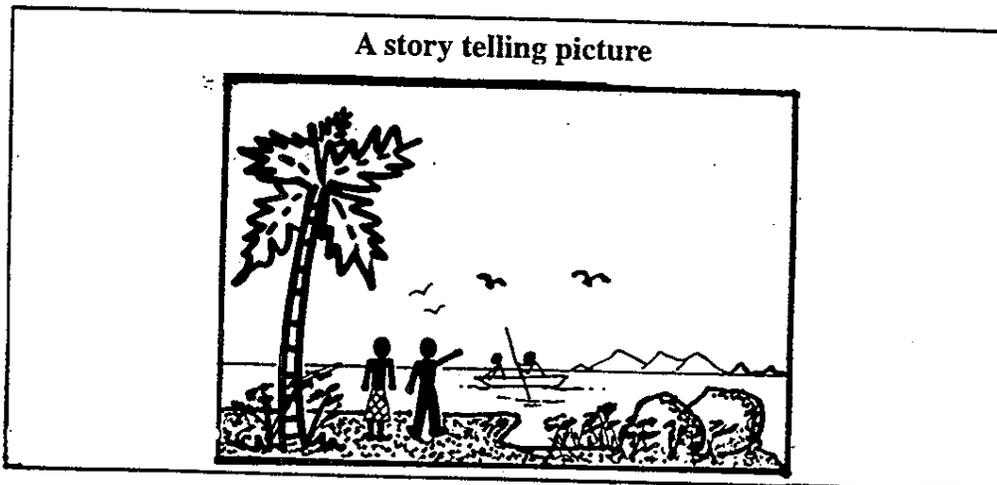
Display your work on your tables, chairs, walls or the floor after 25 minutes. Time for displaying is 15 minutes.

Feedback

- When light falls on objects, surfaces reflect different amounts of light depending on their position in relation to the source of light.
- The side which faces towards the light looks lighter than that which faces away from the light.
- To make shading easier the form of most household objects can be simplified into the standard solid forms, or into forms similar to them.
- On light paper the form of an object is shown by shading the shadowed areas.
- Straight lines, vertical or horizontal can be used to shade a drawing. The closer the lines, the darker the surface; the farther apart the lines are, the lighter the surface.
- Shading can also be done with curved lines to show cylindrical or circular shapes. Different shades can be obtained by the closeness or thickness of the lines.
- Rubbing or smudging a pencil, ink or charcoal on the surface of any drawing gives the effect of tone to an object, or an outline. By pressing the pencil, you get a darker tone.
- Shading is sometimes done with dots. The dots are made to create the effect of shadow and light. The closer together the dots are, the darker the shade; the farther apart the dots are, the lighter the shade.



- By adding a few lines to action matchstick figures, background can be created.
- Story telling pictures can be created once background is created.
- Story telling pictures motivate the learners as the teacher associates the pictures with the story s/he is telling.
- Story telling pictures can be drawn on a chart or a film strip can be made by joining several pieces of paper with illustrations that depict different scenes of the same story.



Developing complete human figures from matchstick figures

Sometimes drawing a complete human figure is necessary, particularly if the parts rather than the whole, are important. A well balanced matchstick figure can easily be advanced or developed into a human figure that is proportional and balanced.

Adding colour

Just for a moment look around and observe some of the things which surround you. Notice how your attention switches from one part of an object to another, or from one object to another, and how certain features stand out or attract you. Imagine how dull and uninteresting the same objects would be if you saw them in just one colour, and against the same coloured background.

Activity 7

Working in groups:

- discuss why colour is used
- distinguish between warm and cool
- describe the colour wheel or chart

Report your work in a plenary after 25 minutes. Reporting time is 20 minutes.

Feedback

Colour is used in a drawing or on a chart for a variety of purposes:

- through colour we see detail and variation in the features of what is drawn, as our attention is drawn from one part of the drawing to another;
- decoration, that is, making a drawing look attractive;
- emphasis or highlighting, that is, making some features stand out;
- representation, that is, using colour to stand for something, for example, green for vegetation, blue for water and brown for high ground;
- expressing emotions, for example, colours can give a sense of warmth or coldness; the warm colours include red, orange, and yellow; the cool colours include violet or purple, blue and green; colour can make things look bright or dull, exciting or boring;
- association, that is, through our experiences as we grow up we come to associate different colours with particular situations, products or designs; examples include red for danger, green for safety, white for cleanliness, and so on.

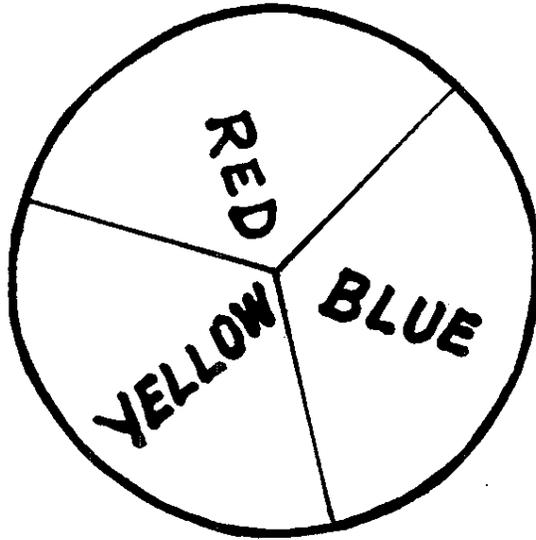
The colour wheel

Knowledge of the theory of colour is only necessary in as much as it helps teachers and pupils master the mixing of colours and to know how to obtain certain desired results. The colour wheel is a chart that shows the main colour categories:

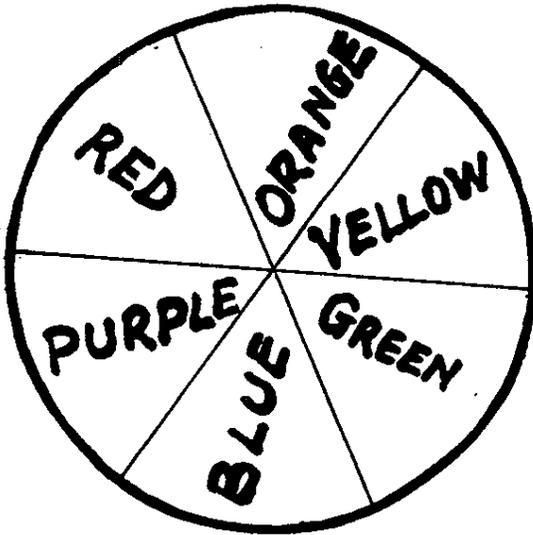
- primary colours, that is colours that form the first colour category and are used to produce other colours, for example, red, blue and yellow;
- secondary colours form the second colour category, produced by mixing equal quantities of the primary colours in pairs, for example, orange is the result of mixing red with yellow in equal amounts; green is the result of mixing blue with yellow in equal amounts, and violet or purple is the result of mixing blue with red in equal quantities; orange, green and purple are secondary colours;
- tertiary colours form the third category obtained by adding more of a primary colour to a secondary colour, for example, adding more yellow to orange the result is yellow-orange; add more yellow to green the result is yellow-green; add more red to orange the result is red-

THE COLOUR WHEEL

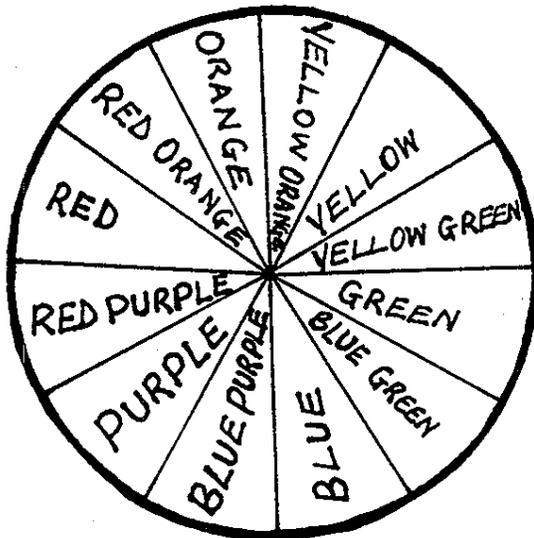
**PRIMARY
COLOURS**



**SECONDARY
COLOURS**



**TERTIARY
COLOURS**



green; add more red to violet or purple the result is red-violet or red-purple; and more blue to green the result is blue-green; add more blue to purple or violet the result is blue-purple or blue-violet;

- when the three primary colours are mixed in equal amount the result is brown;
- brown is also obtained by mixing red with black;
- grey is obtained by mixing white with black;
- pink is obtained by mixing red with white.

Colour tone

Tone refers to the quality of a colour. By adding white or black to a primary or secondary colour you can change the tone. There are three main ways of changing the tone of a colour to create a darker or a lighter tone:

- by adding white the tone becomes lighter
- by adding black the tone becomes darker
- by adding grey the colour becomes softer

Knowledge of colours and how to produce them is very useful when developing charts or illustrations for teaching.

Activity 8

Working in groups:

- discuss tools you could use for painting
- list down resources that are useful in the process of producing your own talular paints

Report your work after 15 minutes in a plenary. Reporting time is 20 minutes.

Feedback

There are many advantages in producing your own talular paint brushes and they can be made as follows:

- tie some sisal, cotton wool or cloth to one end of a stick, a reed or bamboo piece
- cut the sisal, cloth, or cotton wool with a pair of scissors to suit your convenience; this is your brush
- paint directly with foam
- paint directly with quill feathers
- some people have succeeded in painting directly with a finger, which is called finger painting
- fold rags and paint
- use a dead marker as a brush by dabbing
- use a tooth brush
- crash one end of a fresh piece of wood with a stone or hammer and paint with it
- use bamboo sticks, cardboard strips, sponge pieces to apply colours

Resources to support the process of producing talular paints

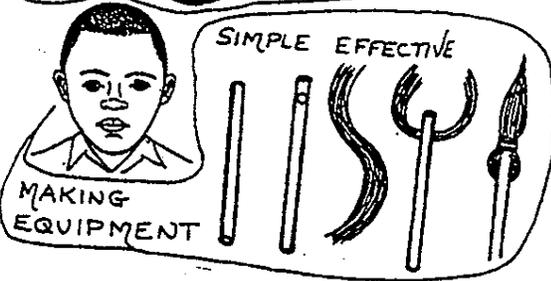
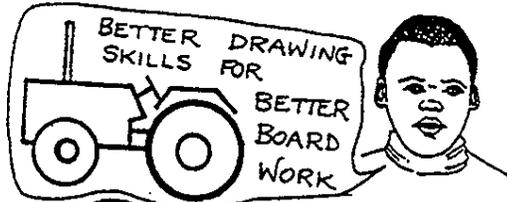
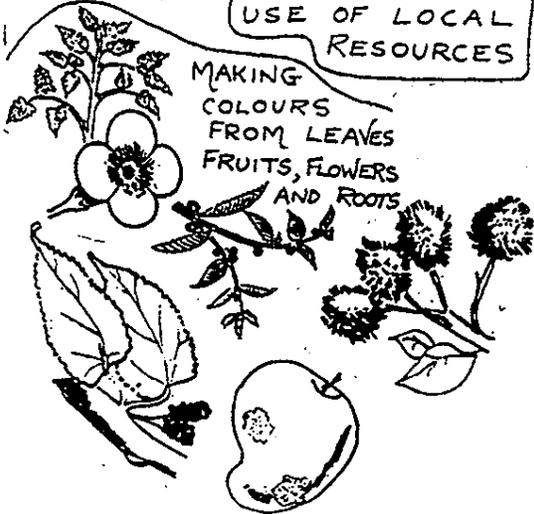
The following items are useful in the process of making your own talular paints:

- clean bottles with lids for storage
- stones for crashing
- mortar and pestle for pounding or grinding
- scissors for cutting
- hoes for digging up roots

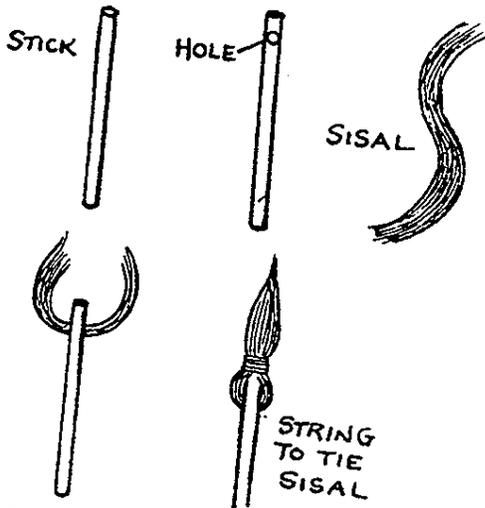
Production of colour from local materials



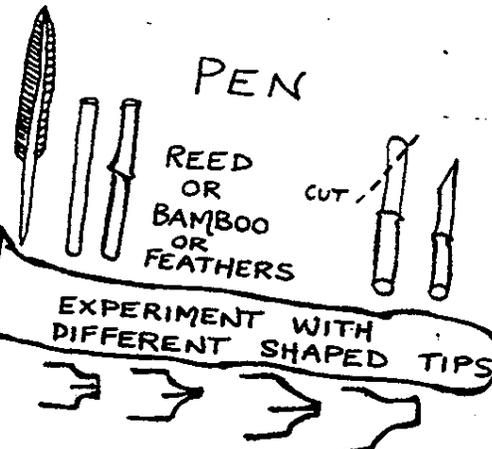
THERE ARE SO MANY IDEAS IN WHICH WILL HELP ALL TEACHERS MAKE BETTER USE OF LOCAL RESOURCES



BRUSH



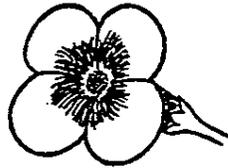
CREATIVE IDEAS TO HELP TEACHERS ESTABLISH THEIR OWN ACTIVE CREATIVE CLASSROOM



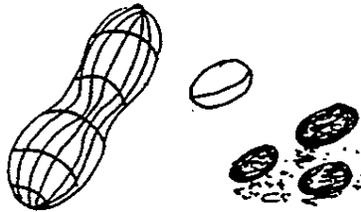
Colours may be purchased in shops but this may sometimes prove costly. The cheap source of colour is therefore the local environment. Ask students to mention some local sources of colours such as leaves, fruits flowers brick powder etc.

With the help of the lecturer student teachers should describe how colours are extracted from the materials listed above as follows:

- Flowers of different colours should be collected and kept in tins or jars.



- Fire baked bricks can be ground and used as colour. This gives different shades of brown.
- Charred groundnuts may be used with paraffin to produce dark colours.



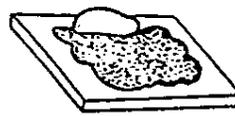
- Green leaves such as tomatoes and onions can be boiled to produce green colours.



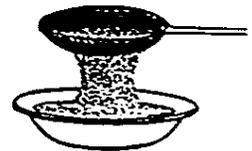
To make colours from coloured leaves or flowers, get the coloured flower or leaves and rub the flower inside a given outline evenly, careful not to apply too much. This is a direct application.

To make colours from fire baked bricks select a piece of brick, grind it into powder, sieve the powder, add some water and sugar to make a thick paste. The paste coloured brown will produce a brown colour when applied on paper or on any suitable surface.

Student teachers should be given chance to experiment on various materials and various preparations as long as they produce a suitable colour in the end.



1. GRIND MATERIAL WITH STONE



2. SIEVE IF NECESSARY



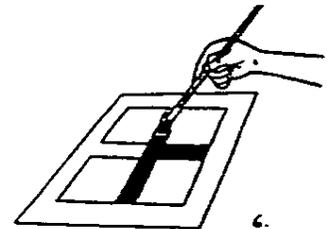
3. ADD WATER



4. ADD STARCH OR SUGAR TO THICKEN



5. STIR



6.

How can I make my tabular visuals look more attractive with local colours? It always pays to try out alternative ideas



- water for mixing, boiling as well as washing
- a stove and tins for boiling
- a sieve for refining the powder from brick, chalk, charcoal, soil, lime or white wash
- a piece of loosely woven cotton cloth or silk for filtering
- a funnel for filtering
- tissue paper for filtering
- cups for storage
- plates for storage
- tins with or without lids for storage
- tea strainer for sifting and filtering
- plastic bottles cut to size for storage

Making talular paints

The art of colour is based on the spectrum of light. We can see this spectrum in a rainbow, or in pieces of glass cut at certain angles (**prisms**). The colours used to make paints, crayons and other art materials come from natural and human-made sources. These colours are called **pigments**. There are many different pigments of each colour. As said earlier, different pigment combinations of red and yellow will give you different colours of orange. As you mix different combinations of colours, you will discover new ones. The best way to learn about colour is by mixing them yourself.

Activity 9

Working in groups:

- go into the immediate environment and experiment with soil/clay, vegetable (flowers, fruits, leaves, bark, roots) and other dyes or colours.
- take some of the materials, process them and come up with your own samples of talular paints

Store your paints in containers.

Feedback

The following tips are useful:

- flowers, leaves, fruits, bark and roots are simply crashed and soaked in water for two or more days
- filter the liquid with a loosely woven cloth
- boil the remaining solid particles with a little water for one or two minutes; add this to liquid you obtained from crushing
- store dyes in sealed bottles or tins; label and store away from strong light
- add sugar to the water to make the paint more adhesive
- crash chalk, clay/soil, and brick or grind into powder, then mix the powder with glue; brick powder mixed with charcoal gives different shades of brown
- mix clay with charcoal to produce different shades
- grind charcoal into powder, mix it with glue and paint; this can also be used in writing of numbers, letters, words and sentences
- paint with inks if available
- crash and squeeze berries to produce red or purple colour
- crash hibiscus flowers to produce a red colour
- crash green pawpaw, pumpkin and avocado pear leaves to produce a green colour
- soak mango bark to produce a yellow colour

- crash curry, dry it and produce a yellow colour; the powder that is made should be stored in bottles or tins
- over-roast some nuts to obtain what are called charred nuts; use these by rubbing to create a brown colour in your drawing
- mix ash with glue to obtain different shades of grey

Continue to experiment with colours such as ink, crayon, coloured chalk, and felt pen or dead marker. With the dead markers use the dabbing method as if they were brushes. Use your talular paints and discuss the results with your friends. Please note that for thousands of years paint has been used to colour house walls, faces, bodies, drums and so on. If you colour your TALULAR effectively, your classrooms will not appear dull and monotonous.

UNIT 5

Designing, developing and using TALULAR

Introduction

This unit is concerned with the material resources mentioned earlier. Many types of material resources may be used directly or may be used to produce other forms. These include realia (real objects), models, pictures or photographs, posters or charts, the textbooks, chalkboards and cards. Clearly, teachers have an enormous responsibility for the well-being of learners in the classroom. When developing TALULAR for teaching, you will be expected to play the role of a responsible designer while coming up with designs of the TALULAR you intend to develop to satisfy the needs of the learners.

Whenever you make any TALULAR, from the simplest to the most complex, materials, components and tools will be used, and skills and knowledge will be required. A thorough understanding and utilization of these resources is necessary to ensure a high quality product which in turn will promote quality teaching and quality learning.

Objectives

By the end of this unit you will be able to:

- define a design
- describe criteria of designing TALULAR
- explain stages in the design process
- design and develop a talular chart
- use TALULAR effectively and efficiently

Design ideas

When designing what TALULAR to develop or produce, start this process by surrounding yourself with images that are related to the product you are designing to influence your work. During presentation of your ideas, the most important feature of your presentation is that it should be easy to understand and show your creative thinking. Add notes to your drawings that make reference to materials, textures, function and values of your final product(s). These notes are called annotation.

Your design should be clear and realistic in such a way that you imagine you are going to send it to another teacher and will not be able to speak to him or her to explain the ideas you have presented. The concept related to the topic you are preparing the TALULAR for influences the manner in which sketches are made and the arrangement of certain key features.

Whether something looks good or bad depends on what you like. Although there are some things that most people would say are ugly or attractive, a thing can look good in one setting and bad in another. Beauty is in the eyes of the beholder, goes the saying. This is called aesthetics.

Most people interested in producing and using teaching and learning resources in the classroom have a variety of designs to choose from that differ not only in form, but also in their underpinning assumptions and value positions. In any case, every teacher should always think of the learners and the prevailing circumstances in which particular TALULAR will be used in order to come up with an appropriate design and product.

Normally we design new TALULAR for a number of reasons:

- There may be a need for the new TALULAR to solve a new problem in teaching and learning in relation to the topic you are currently teaching.
- There may be a need to improve the performance of the existing TALULAR; a talular resource that looks old fashioned, functions poorly or looks worn out, is unreliable.
- There may be a need to redesign the TALULAR because you are teaching at a different level, or the curriculum has been revised, or for purposes of variety in your lesson delivery.
- There may be need to improve the graphics, add colour to make the TALULAR more attractive.

You can use these reasons to help you come up with a **design need**. Also, the reasons for using TALULAR discussed in unit one are some of the guiding principles.

Activity 1

Working in groups:

- define the word design
- discuss the criteria of designing TALULAR

Report your work after 15 minutes. Reporting times 20 minutes.

Feedback

To design something, according to Hornby, et al (1974), is to prepare a plan or sketch of something to be made. Design, as a noun, is a drawing or outline from which something may be made. The following criteria should be considered when designing and producing TALULAR. They should be:

- attractive to hold learners' interest
- accurate and up-to-date
- appropriate for learners' level of understanding
- suit different learning styles
- relevant to the syllabus topic
- bold: everyone can see or read
- bright: add colour if possible
- carefully made for better learning
- clean: untidy TALULAR spoil lessons
- clear for learners to get the message
- brief: carrying essential information only; a noisy chart, that is, a chart that is overcrowded with information is difficult to understand

Stages in the design process

What makes someone design something? According to Garratt (1996) designing happens because human beings like to be creative and when a person recognizes a need, the reaction is to try to do something about it. As a teacher, you would like to design a talular resource, how often do you demonstrate your creativity in the design, let alone in the final product? You are expected to recognize the different needs and preferences of your learners as well as the nature and complexity of the topic, and to investigate the design and form of other familiar TALULAR to help you develop appropriate designs to meet your learners' needs.

Activity 2

Working in groups:

- discuss the stages you would engage yourself in the design process
 - highlight some of the design principles that you know
- Report your work in a plenary after 20 minutes. Reporting time is 20 minutes.

Feedback

You are a talular designer. Designers set out to solve problems which arise from day-to-day situations during teaching. For example, your situation may be to use a talular resource that would help you develop the four constituent language skills of listening, speaking, reading and writing in the same lesson. The following stages are commonly used in the design process:

analyse the situation

- analyse the situation to sort out exactly what the problem is before attempting to solve it
- ask questions to find out more about the problem
- put yourself in the situation and imagine how learners would feel
- put someone else in the situation and observe his or her actions as well as his or her reactions
- record your observations and thoughts

Write a brief

- write a brief once you have completed to analyse the situation
- a brief is a short statement describing the problem to be solved
- a brief should be clear
- a brief should not be so detailed

A TALULAR BRIEF

Telling a story during language teaching can be monotonous and boring. The problem is made worse by lack of commitment on the part of the teacher. I think there is a need for some kind of TALULAR such as the diorama or cinema box to help learners understand the sequence of the component parts of the story. Also, I believe lessons should be varied to motivate the learners. The talular cinema box stimulates and attracts learners as they listen to the story.

Carry out research

Research follows writing a brief. This means seeking information which will help you produce a good design. The following questions are useful:

- **Who will use it?**
Users fall in a wide range of categories determined by factors such as age group, gender, culture, values, interests and life styles.
- **What is the practical function of the design?**
A design's practical functions may include structural support, protection, containment, mechanical movement and control; electrical operations and control.

- **What part does appearance play in the design's function?**
Shape and form, surface texture, colour, strength, stability, rigidity and safety can be important to a design.

- **What materials are suitable for the design?**
The properties of a material will determine its suitability for the design. These will include the physical properties of strength, hardness, toughness, density, and durability. Also, attractiveness of the material may be determined by colour, surface texture, pattern and availability to support the task adequately.

- **What construction methods are appropriate to the design?**
Construction techniques fall into the categories of cutting and shaping; drawing and labelling; fabrication, that is, the assembly of parts using nails, bolts, glues, solder and other connectors; moulding, that is, the application of a force on the material, and casting, that is, using a mould to form the shape of a solidifying material.

A particular material can only be worked in a limited number of ways. The method of construction, therefore, will be determined by the chosen material, the availability of tools or manufacturing facilities, the skills of you, the designer. This is where your previous experience of the object whose design you are making and your expertise are important because they will enhance excellence in the final product, with commitment underpinning the operations. Experience, expertise and excellence are the three E's of TALULAR.

- **What are the likely social and environmental effects of the design?**
The manufacture, use and disposal of any product will normally have both beneficial and detrimental effects upon people, wildlife and the environment. As a designer, you have an enormous responsibility to consider very carefully the potential effects of any new design. These will include health, safety, noise, aesthetic qualities and pollution. TALULAR should be made environmentally friendly as much as possible. Emphasis is on the three R's of TALULAR: reduce litter, recycle and reuse, encouraging us to value objects in our local environment.

Where to obtain the information?

- Research can involve reading, listening, talking and observing.
- General background information can be obtained from reading magazines, journals, data sheets or reports and other written materials in your local library. **How often do you carry out some research in order to improve your design, development and use of TALULAR?**
- If more detailed information is required, you may need to write a letter to a particular shop, industry, government department or a research unit. For instance, you may want to design a chart with human figures and animal figures included, or make models or puppets, looking at toys in a toyshop is a useful form of research. You can quickly learn about the different methods and techniques used. You will then be in a better position to start thinking about your own product, and ways of improving on any current designs.

- A valuable area of research is within your own community. As said earlier, the local environment is a rich resource for the school. Sources of information can include shops, industries, museums, parents and friends.
- Study the syllabus and the teacher's guide. Note down the resources listed down.
- Visit the neighbourhood and list down what materials are available.
- If learners will contribute to the collection of the resources, tell them what you expect them to do.
- When making any consultations for further information, do not allow other people's ideas or solutions to prevent you from using your **creativity**.

Specification

- Specification is a detailed description of the problem at hand.
- Spell out exactly what the design must achieve.
- Take into account the design limits which will affect the final product.
- You can make a statement of intent or a list of guidelines.

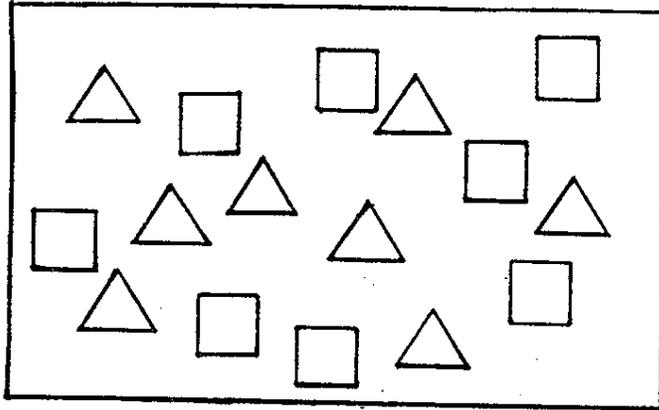
SPECIFICATION

- The talular resource should assist the teacher tell a story during language teaching.
- It must enhance learners' understanding.
- It must be very easy to use, and not have any complicated controls.
- It must be completely safe for the user.
- It must not be noisy (not crowded with a lot of information).
- It must be neat and attractive.
- It must cost little or nothing.

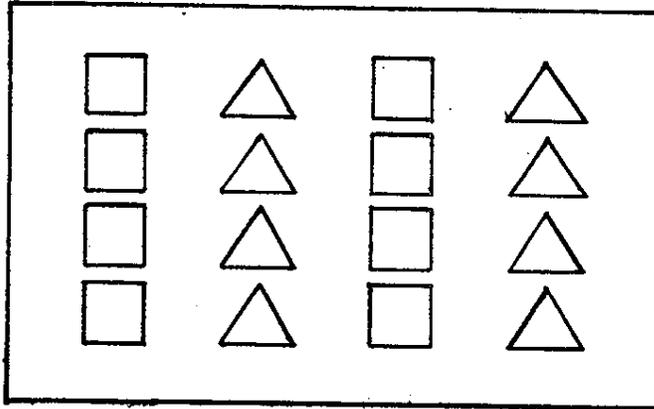
Possible solutions

- This is the phase or stage in the design process when you really need to be imaginative, to think up and draw a lot of really good ideas for solving the problem set out in the brief.
- Use your research notes to help you make decisions about how the product will function; what it will look like, the most suitable resources, component parts, how it might be developed or drawn.
- Think of at least three different ways of solving the problem or presenting the topic that calls for the use of this particular design.
- Make quick sketches and notes at this stage.
- Look back at the specification, when you feel ready to make a choice from your range of possible solutions.
- Compare what the specification asks for to what each of your designs can provide, and choose the best alternative.

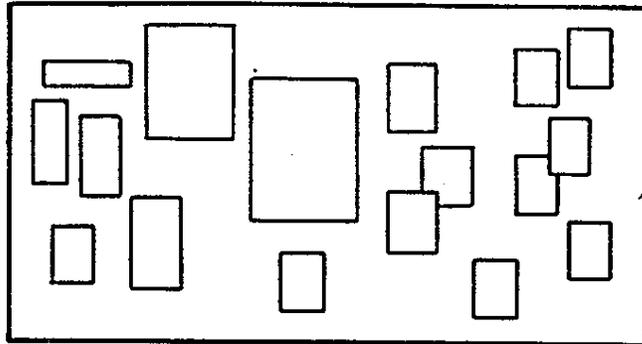
A



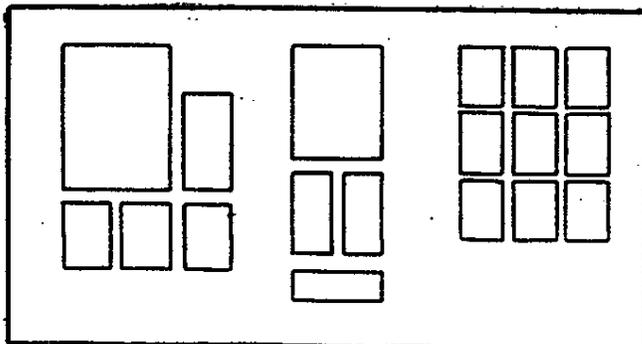
B



A



B



- Make some simple models or samples to test and compare different designs or drawings.
- Ask yourself questions such as: Do I have the time to complete the work? Can the school support with the materials? Can I acquire the necessary skills to complete the task?

Working on drawings

- Produce some working drawings once you have decided which design to develop.
- You will develop the prototype or final product from these drawings.
- The drawings you make will depend on your own expertise.
- You may choose to produce a detailed freehand drawing or you may prefer to use some technical instruments.
- Whichever method you use the purpose is to produce a detailed drawing containing all the information needed to allow for the design to be developed.
- Working on drawings will include dimensions, relevant data, also known as **component values** and materials.

Planning

- Plan out the work ahead, before any practical work commences.
- Planning should help get the work finished on time.
- Draw up a timetable indicating how much time you will spend on each part of the design.
- Make changes to the timetable as work progresses, if tasks take less time or longer time, or longer than expected.
- Ensure that you have the necessary materials and equipment. As said earlier, the local environment is rich in talular resources. This is where you can take the class out to assist you in the collection of materials, request learners to bring some from their homes, sort out the materials in groups or types, prepare a list of all the grouped items, and so on.
- Plan your layout if drawings and labelling are involved. Layout refers to the arrangement of elements in a design.

Activity 3

Working in groups:

- Cover diagram B with a sheet of paper and study diagram A for 30 seconds.
 - Then close the book and try to draw from memory what you saw.
 - Repeat the experiment covering diagram A and studying diagram B.
 - Discuss the difference between symmetry and asymmetry.
- Report in a plenary after 20 minutes. Reporting time is 15 minutes.

Feedback

- You will notice that diagram B is much easier to read than A, yet, these diagrams have exactly the same pictorial elements: 8 squares and 8 triangles.
- In A the elements are disorganised, whereas in B, they are organised in a very systematic way into four straight columns.
- In other words, diagram B has a layout and A has not.
- Organising visual information improves perception and memorization of that information. This is essential in the process of learning.

- Layout in planning elements in a design for educational purposes is important. Good, clear presentation of visual information can improve the learning of that information.
- Planning layout in a talular resource means arranging visual elements, pictures, text columns or labels to diagrams, in such a way that the material is organised and looks attractive.
- If you compare figures A and B with two school bulletin-boards C and D, in D the information is systematically organised according to subject areas, whereas in C the same notices are put accidentally. Put otherwise, the bulletin-board D has a good and clear layout, but the bulletin-board C has no layout.
- Make small size sketches, before beginning the actual art work. The same information can be arranged in many ways.

Symmetry and asymmetry

- Symmetry refers to a situation in which elements in a layout can be grouped into two equal parts by drawing a line through the central point of a design or picture.
- A picture can be symmetrical with regard to the horizontal or the vertical axis or both.
- Asymmetry refers to a situation in which any line drawn through the central point divides the picture or design into two different parts.
- Symmetrical layout is easy to make and always looks balanced.
- Asymmetrical layout is more interesting, but skill is needed to make it look balanced.

Formal and informal balance

- Balance achieved through symmetry is called formal balance.
- Balance achieved through asymmetry is called informal balance.
- Vertical lines create a feeling of stability. Diagonal lines are dynamic, but restless, as in figure A above. In TALULAR, avoid diagonal directions, particularly if you are labelling some parts of a design.

Design elements

- To achieve a desired effect, that is, balance, clarity and emphasis in a layout, one can use design elements. These are colour, shape, size, space, line, arrows and italics.
- One is used to reading from left to right and from up downwards. In the same way one does not look at pictures, unless there is something that will catch one's eye immediately.
- To emphasize a word in a text or layout you normally underline it. You can achieve emphasis in your TALULAR by using a different colour, shape, size, or by using an empty space



Using colour in a design

You can use colour in a design in three main ways:

- **decoratively**, that is, to add beauty in order to make your TALULAR look attractive.
- **realistically**, that is, using colour to represent the natural colour of the object that the design depicts. For example, use of green for green plants, red for blood, blue for water, and so on.
- **functionally**, that is, using colour to serve a representative function. For example, use of green for lowland, brown for high land, and so on.

Labelling

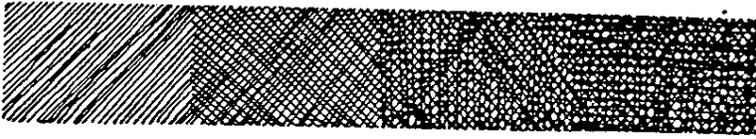
- Write names of equal value in the same style and size, for example, labelling town names and parts of an object.
- In general, keep your labelling in the horizontal direction. An exception may be the names of rivers and mountain ranges where their names follow the course or natural form.
- You could number the places in a map or part of a diagram and write the names outside the map or diagram.

Construction work or production of the final product

- If you have worked out your timetable, and have collected some of the materials and equipment you need, you can begin work.
- The construction of a prototype, or final product can involve a great deal of skillful activity. Use your experience(s), expertise and, excellence to achieve your underlying principles during production in order to realise the goal of improving educational quality.
- Construction can also include taking measurements and marking out, cutting, moulding, casting, and fabricating.
- Fabricating can include blazing, welding, pinning and joining, using adhesives and using nuts, bolts or bamboo pegs.
- You can engage in circuit construction techniques such as etching, that is, making a design or pattern on metal or glass, soldering and wiring.
- Observe safety precautions in your school at all times.

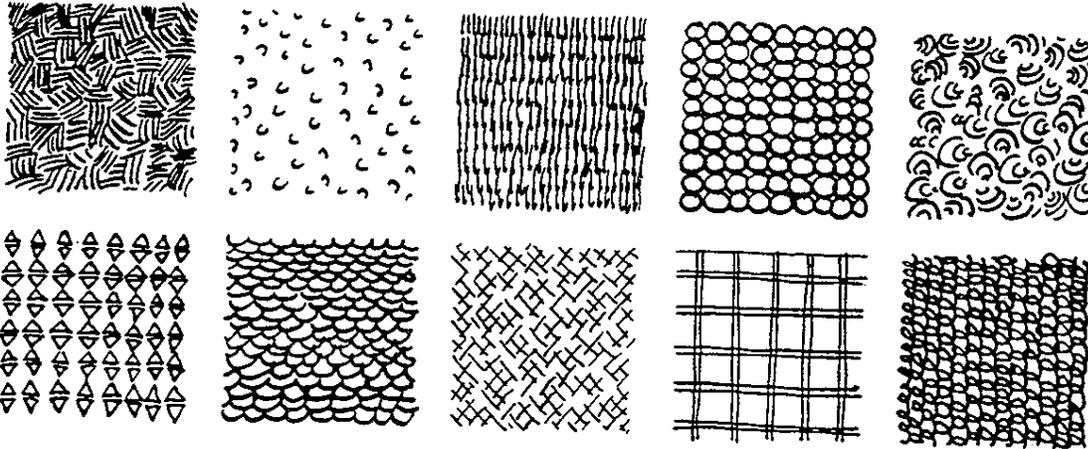
Shading techniques

Shades can also be created by crossing lines of the same thickness. This method is called cross-hatching.

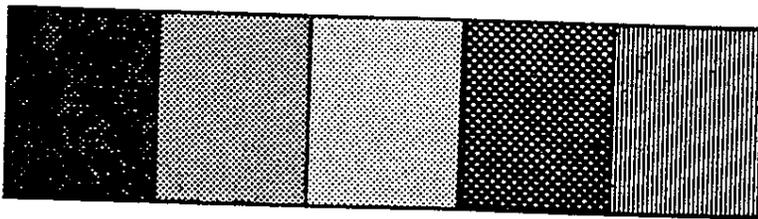


Cross-hatch shading drawn with a dip pen.

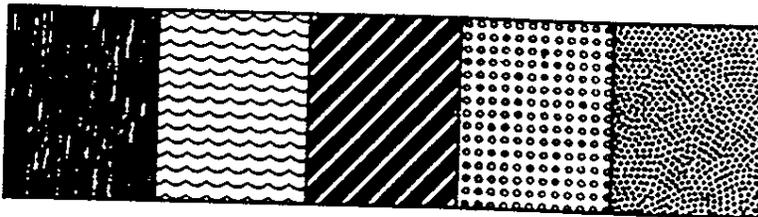
By using different patterns one can show the texture of materials in an illustration. Textures can be drawn flat, without any indication of perspective or shapes, but it is also possible to alter the line widths and distances within a pattern and thus create feelings of light, shade, depth etc.



Shading and texture can also be obtained by using dry-transfer tones and patterns (Lettra-tones). These shading sheets are especially suitable for diagrams and scientific illustrations, for which great accuracy is required.

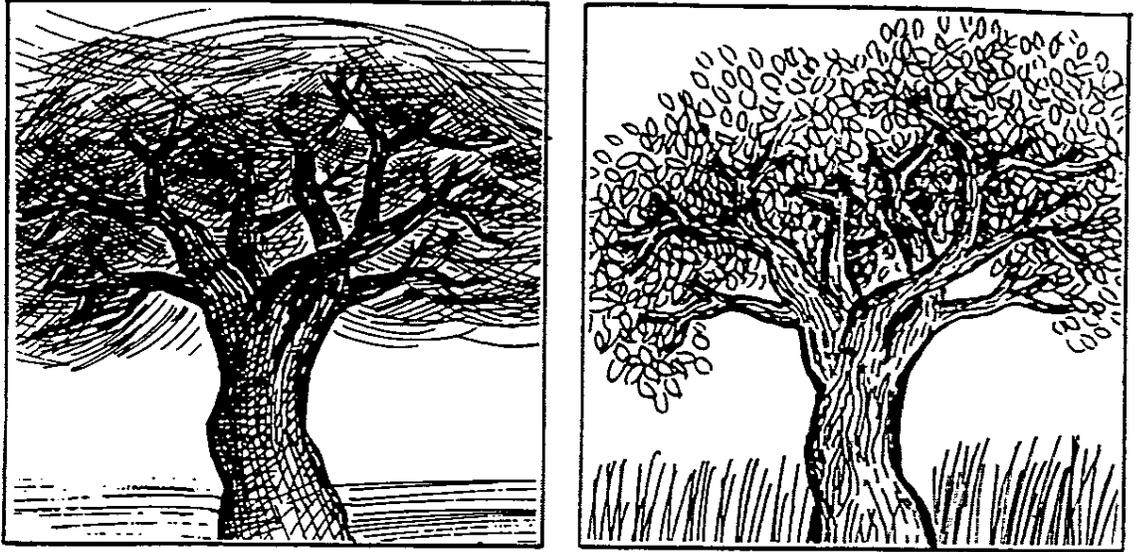


Shading obtained by using dry-transfer shading sheets.

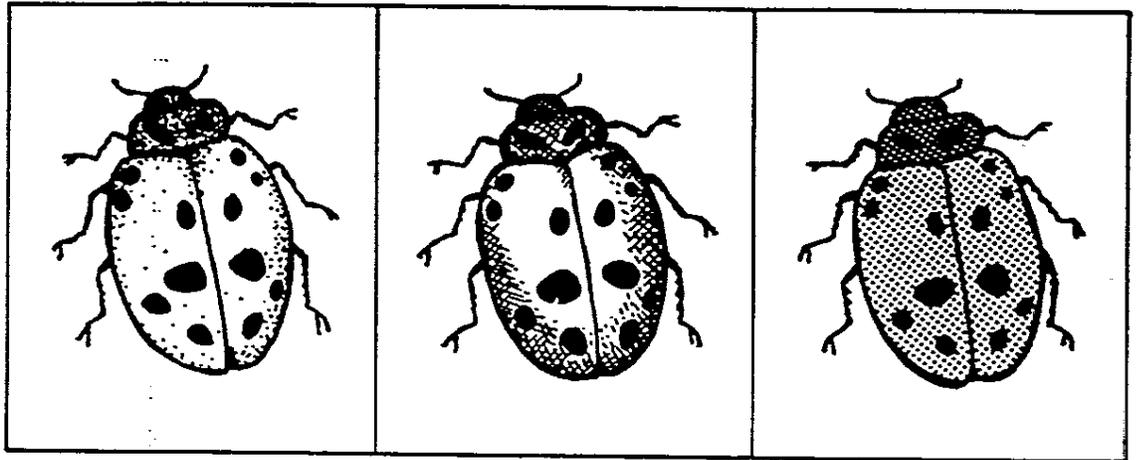


Textures obtained by using dry-transfer patterns.

It is recommended that you select one of these shading techniques and use it consistently in an illustration or series of illustrations. Before starting shading, one has to decide from which direction light comes in the picture.



Examples of ink shading techniques.

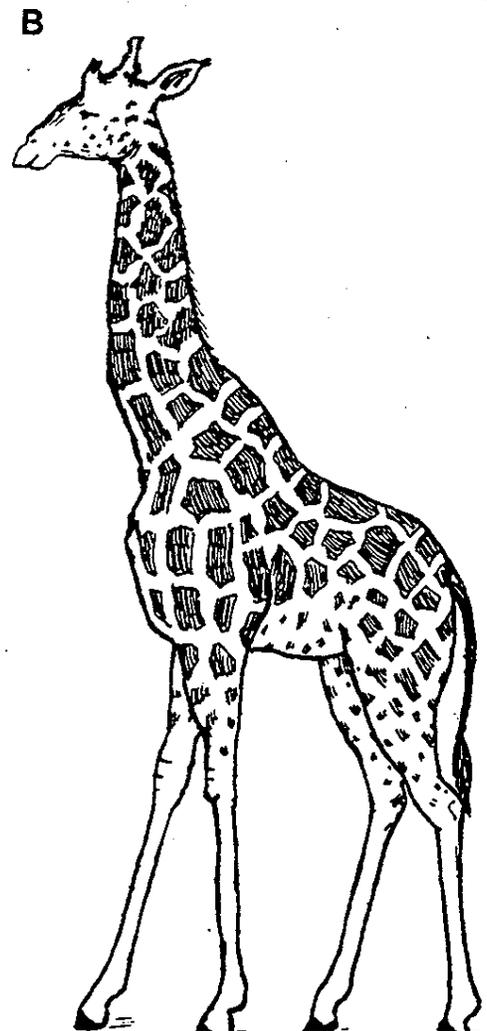
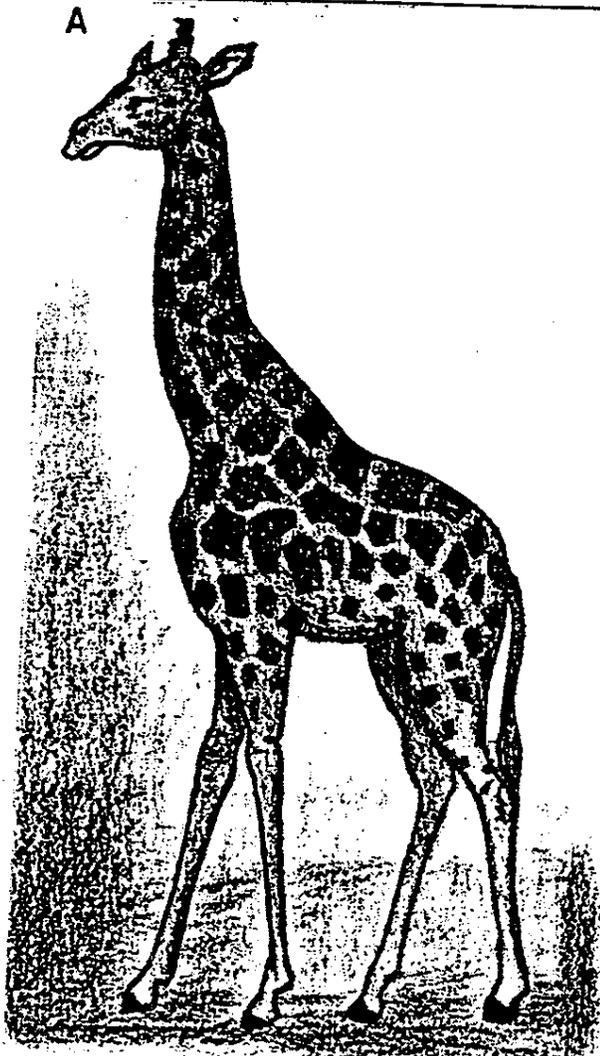
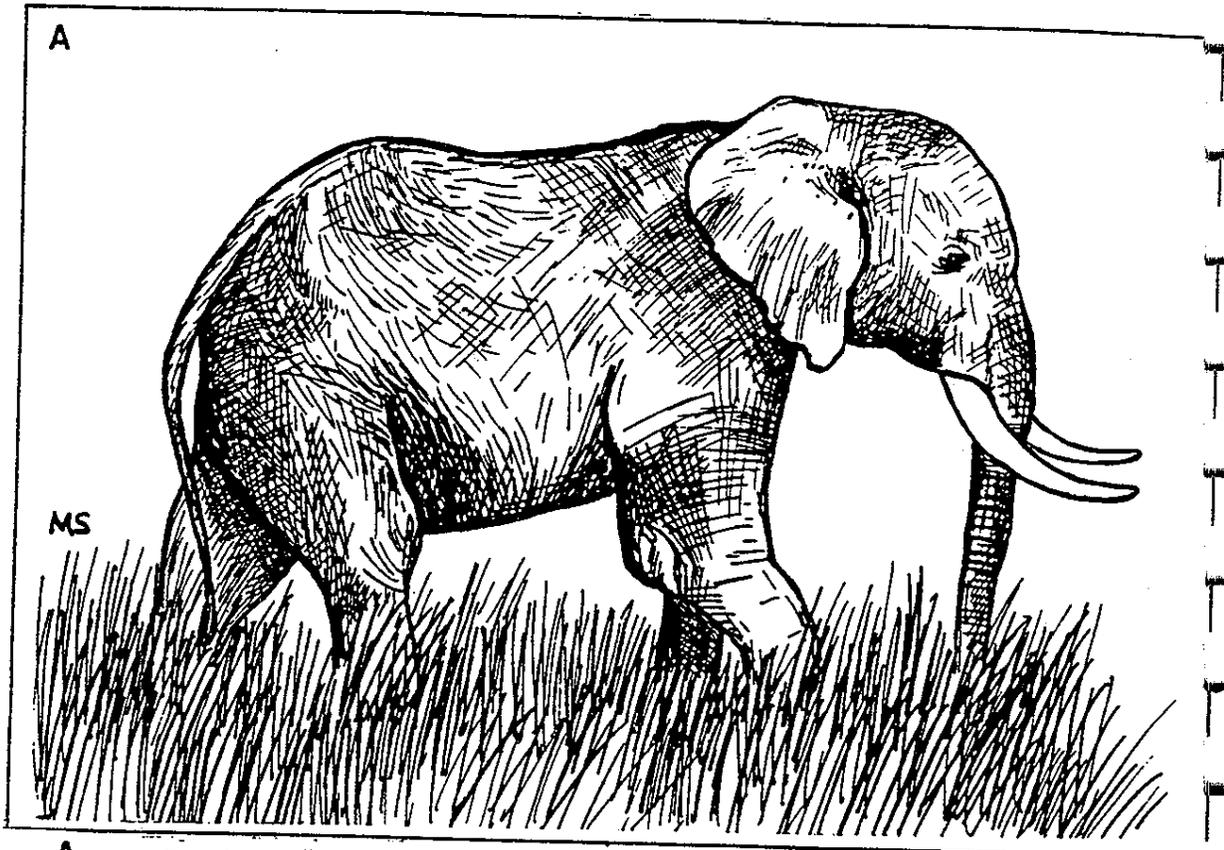


PENCIL

An ordinary pencil is an old and useful tool for a graphic artist. It is especially recommended for freehand sketching and roughing in the final art work. If reproduction of continuous-tone art is technically possible, pencil technique can be used for book illustrations also.

A large variety of wood encased pencils is available. These are usually classified as either hard or soft, depending on the type of graphite or lead they contain.

Lead is graded from 6H to 6B. The letter H stands for hard lead producing a very light grey tone, and B means soft lead giving a black tone. Pencils marked with HB are medium density and are generally used for writing. For sketching softer pencils are recommended, e.g. 2B or 4B.



Advantages of designing and producing your own TALULAR

It should be emphasized here that a well balanced design or layout leads to production of good and attractive TALULAR. Designing TALULAR first, is a better way to avoid producing and using TALULAR haphazardly.

Activity 5

Working in groups:

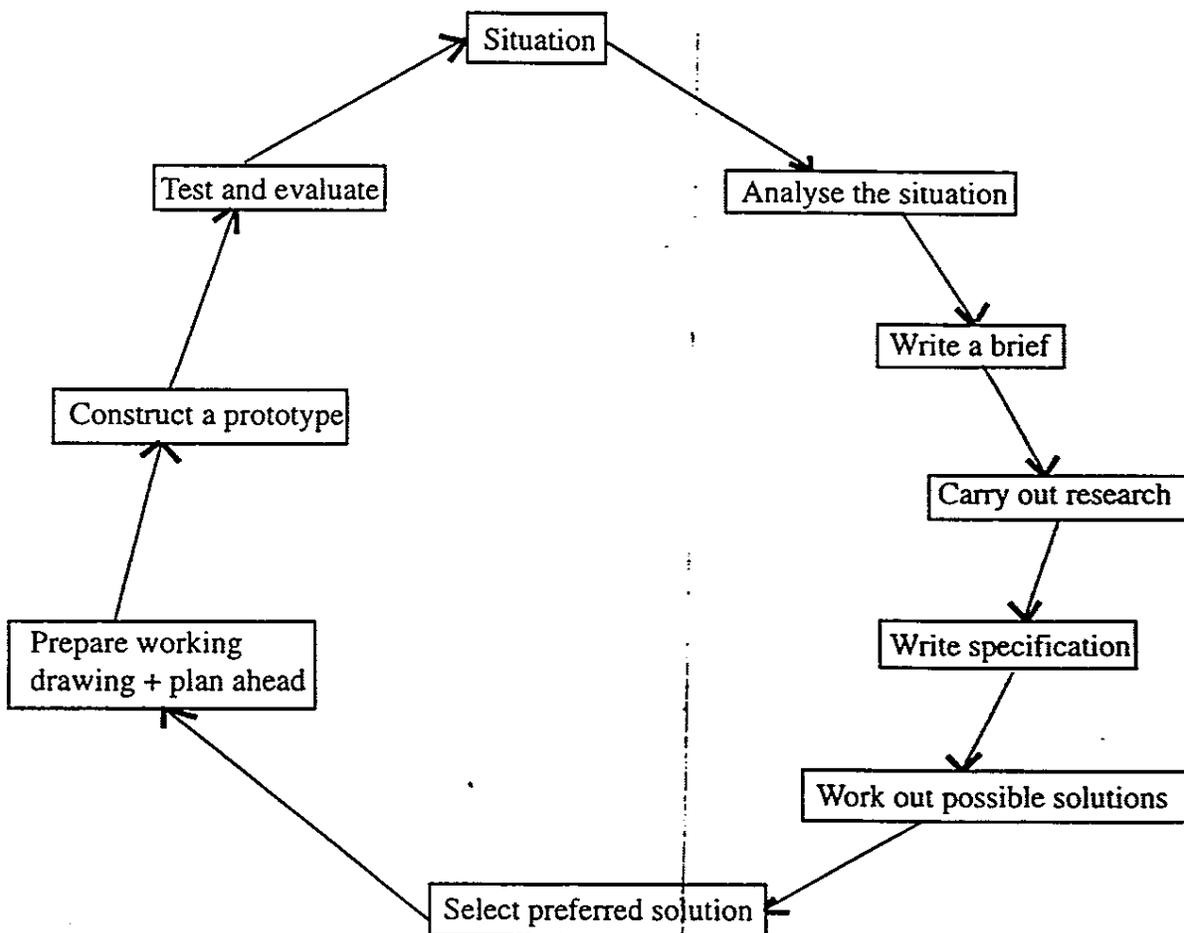
- discuss advantages of designing and producing your own TALULAR
- find a talular chart and present, in a form of a diagram, a summary of the stages in the process of designing and developing TALULAR.

Report your work in a plenary after 20 minutes. Reporting time is 15 minutes.

Feedback

Designing and producing your own TALULAR has the following advantages:

- It is less expensive than buying the conventional or commercially produced resources.
- You can design and produce TALULAR to suit your purposes and your learners' needs.
- You can choose those that are directly relevant and appropriate to your local community or situation.
- Learners can work with you in planning and making the TALULAR available.
- Using your own TALULAR develops a sense of ownership and pride.



Please note that after **testing** and **evaluating** the prototype one confirms its suitability or unsuitability for the intended purpose. If one is not satisfied with the prototype, the process is repeated. Alternatively, once one is satisfied one examines other possibilities for purposes of **variety** or **diversity** as well as **identifying** another situation and other TALULAR to be used. Then the process becomes cyclic.

Drawing teaching methodology

Besides using drawing for making illustrations on the chalkboard and designing other TALULAR, learners will need drawing for developing the skill in its own right, as a prerequisite to developing the writing skill in language learning, and when recording information in other subject areas as well as developing desirable attitudes towards Fine Arts as a subject.

Activity 6

Working in groups:

- state the importance of teaching drawing
- discuss how you make the teaching of drawing interesting
- list some methods you would use to develop the skill of drawing in learners

Report your work in a plenary after 20 minutes. Reporting time is 20 minutes

Feedback

Drawing plays the following roles that justify its inclusion in the curriculum as part of Creative or Fine Arts as a subject:

- to promote basic practical skills for post primary institutions
- to facilitate learning in other subjects, for example, drawing geometrical shapes in Mathematics, illustrations in Science, Home economics, and handwriting development in language learning
- to develop positive attitude towards practical subjects
- to develop awareness of learners' environment and be able to utilize it profitably, for example, making dyes from local materials for adding colour to their drawings
- to develop learners' practical skills in order to contribute to their country's development through self-reliance, self-entrepreneurship
- to create employment opportunities

How to make teaching of drawing interesting

- teaching drawing with skill, you, the teacher, are the best example
- preparing thoroughly for the drawing activity
- simplifying drawing by drawing step-by-step, emphasizing the whole or outline of an object rather than its details
- using skilled resource persons from the community
- relating it to other subject areas
- making drawing fun through drawing songs
- relating drawing to life after school experience

Methods of teaching drawing

- **Observation** – develop the skill of observation by creating contexts in which learners observe things and internalise their shape, size and proportion.

- **Practice** – provide as many opportunities as possible for drawing practice. Practice makes perfect, goes the saying. Drawing is a skill like swimming and the only way to learn it is to practise it.
- **Application** – demonstrate the relevance of drawing to your teaching in the development and use of TALULAR, in students' learning of language and other subjects as well as in career guidance.
- **Singing** – as said earlier, drawing should be fun. Here is an example of a drawing song:

Draw a line in the air, in the air,
 Draw a line in the air, in the air,
 Draw a line in the air, in the air,
 Draw a line in the air, in the air.

Draw a square in the air, in the air,
 Draw a square in the air, in the air,
 Draw a square in the air, in the air,
 Draw a square in the air, in the air.

Draw a triangle in the air, in the air,
 Draw a triangle in the air, in the air,
 Draw a triangle in the air, in the air,
 Draw a triangle in the air, in the air.

Draw a circle in the air, in the air,
 Draw a circle in the air, in the air,
 Draw a circle in the air, in the air,
 Draw a circle in the air, in the air.



Drawing is a talular resource, and so are songs. Use drawing to enhance teaching and learning as well as developing drawing skills in learners for future life. Drawing step-by-step with the learners simplifies drawing for them before challenging them to do more advanced drawings.

UNIT 6

TALULAR for developing numeracy

Introduction

In numeracy, as in other areas of learning, it is the teachers concerned, and not the techniques they use, that establish the foundation that is firm leading to successful learning or the weak foundation that leads to failure. In getting to know and understand their learners with a relationship which leads to the sharing of interests, experiences and knowledge of numeracy opens up countless ways of opportunity.

A high percentage of children experience difficulty with numeracy simply because it has been presented to them in a completely illogical manner. How thoroughly prepared is the teacher before the lesson is presented? How much of the language of mathematics does the teacher understand? What is his or her background knowledge of mathematics like? How confident is the teacher in clarifying mathematical concepts? These questions and many more should be considered in order to promote good teaching and good learning of numeracy.

Negative feelings such as lack of confidence, a sense of frustration or failure, and attitude of inferiority or shame can in themselves block progress. Children who come to school for the first time have some ideas about numbers. This is acquired through handling and manipulating objects in their local environment. Manipulating objects provides an appropriate context for teaching number work to learners. This is where various TALULAR are useful. They help to take the learners from known to unknown or from familiar to unfamiliar. How can experiences and knowledge of numeracy that children bring to school be developed and sustained? One way is linking the school with the home by focusing learners' attention on objects around them as TALULAR representing various numbers.

Objectives

By the end of this unit, you will be able to:

- explain how TALULAR should be used for developing numeracy
- describe prenumber work taught to pupils
- list prototype TALULAR for developing numeracy
- make some prototype TALULAR
- use TALULAR to develop numeracy
- describe the language policy across the curriculum

Use of TALULAR in numeracy development

In everyday life a child is learning to express experiences which are unique to himself or herself in different ways such as dramatically, artistically and verbally. S/he acts out these experiences in drama, reproduces them in drawings, and gives verbal expression to them either spoken or written, so that they are intelligible to others. In just the same way s/he should learn to express his/her mathematical experiences in terms of the language of mathematics. Unless a child is familiar with the use and meaning of mathematical language in the spoken form, s/he will not be likely to succeed with the printed symbols that represent those words in books. TALULAR will facilitate the teacher's interaction with the learners.

Activity 1: A Case Study

Individually, read the following Case Study silently for 5 minutes and answer the questions which follow:

Mr. Kapamba, a teacher at Mayani School, teaches in Grade/Standard 4. He writes lesson plans for all the subjects he is expected to teach each day and updates his schemes and records of work every week. He has learned some TALULAR ideas and goes to class with relevant TALULAR for every lesson.

Unfortunately, Mr Kapamba teaches his lesson from the introduction to the end without using any of the TALULAR he brings to class.

Questions

- Why do you think Mr Kapamba doesn't use the TALULAR he brings to class?
- What would you suggest to Mr Kapamba to help him?

Find a partner and compare your notes and you have 15 minutes to do so.

Feedback

The following could be some reasons why Mr Kapamba does not use the TALULAR he brings to class:

- lacks adequate planning; he simply prepares a lesson plan without determining in advance which particular TALULAR will be used in a particular step
- writes a lesson plan just as a matter of routine
- lacks skills in effective and efficient use of TALULAR
- works in isolation, does not associate with other teachers in order to benefit from their expertise
- does not refer to the lesson plan during teaching to determine which step calls for a particular resource
- does not internalise the lesson notes in order to have a general idea of how the lesson will flow
- does not recognise the importance of using TALULAR to facilitate teaching and learning

The following suggestions may help Mr Kapamba in his subsequent lessons. He should:

- plan the use of TALULAR systematically; some teachers often do not know how to blend the abstract nature of the topic with an appropriate resource.
- indicate in his notes exactly when particular TALULAR will be used; TALULAR should not be brought to class as a matter of routine.
- internalise his lesson notes in order to have a general idea or view of how the lesson will flow.
- refer to the lesson notes occasionally to ensure that nothing important is missed.
- be conversant with how any TALULAR he brings to class are actually used, making TALULAR available is one thing, and knowing how to use these effectively and efficiently is another.
- plan jointly with other teachers as well as consulting them as often as necessity requires for mutual benefit.
- realise that TALULAR assists teachers to teach effectively and the learners to learn effectively.
- reflect on his performance in relation to pupils' performance including considering how TALULAR enhanced teaching and learning.

Developing numeracy through TALULAR

It is unfortunate that some people think that mathematics is for gifted ones. It is true that some people associate mathematics with problem solving. It must be emphasized here that the teachers who never enjoyed mathematics during their school days would find it difficult to generate an interest of the subject in learners. This could cause fear and a feeling of panic and anxiety, which is talularised as MATHOPHOBIA both to the teacher and the learners. It is necessary that teachers project a positive attitude towards Mathematics which is regarded as the gate to Science and Technology for development.

Mathophobia is a mental block which prevents people from learning anything which they perceive as mathematics, although, if they do not recognise it as such, they may not have any trouble with it. Such mathophobic learners, especially girls are forced into school learning situations where they are doomed in advance to generate powerful negative feelings about numeracy, and perhaps even about learning in general, establishing a vicious self-perpetuating cycle.

Mathematics, like Science and Fine Arts, should be regarded as a subject that interacts with the local environment. The self-perpetuating cycle mentioned above has to be broken, and should be done at the very earliest in a child's life, in the home and by a good mathematics teacher in the child's first school. There is no need to force early mathematics understanding, it exists in everyday conversation and social interaction. Every time someone says, 'more than' or 'less than', it is part of numeracy.

Activity 2

Working in groups:

- discuss prenumber work taught to pupils
- list down some prototype TALULAR you can use to promote effective learning of numeracy
- indicate what you would do in order to take care when using realia in the classroom

Report your work in a plenary after 20 minutes. Reporting time is 20 minutes.

Feedback

The teaching of numeracy should be systematic, taking learners from simple to complex, known to unknown and familiar to unfamiliar. Even a simple sum requires consideration. First, learners must understand the concept of adding up. Secondly, they have to be able to carry it out mentally. Thirdly, they have to cope with the symbolic notation of '+' and '=', and finally, they must understand the confusing wording of '2 and 2 are 4'. The learner needs help in each of these steps. Learning of numeracy should be participatory, through the use of TALULAR by contriving real life situations where learners constructively play by:

- sorting out objects
- classifying objects
- matching objects
- comparing objects
- ordering things
- mixing objects
- joining objects

Activities that promote prenumber work

Sorting out objects – students collect various TALULAR from the school environment such as bottle-tops, beans, stones, sticks, leaves and seed-pods. Place the TALULAR in one group.

- Ask learners to name each object collected.
- Ask learners to pick out all similar TALULAR from the group.
- Explain the process as sorting out.

Let learners sort out more objects according to other attributes like size, colour, use and shape.

Classifying objects – this is similar to sorting out objects.

- Demonstrate classifying by putting together all the leaves, stones, sticks, beans and bottles.
- Objects can be classified according to name, shape, colour, size and texture.
- Let students sort out and place together all similar objects.
- Ask learners to name the objects in the group.
- Ask learners to sort out and place together all similar objects by colour, shape and size.
- Explain that grouping objects according to a given attribute is called classifying.
- Let learners classify objects into various attributes.

Matching objects – this is putting similar or dissimilar objects together.

- Demonstrate matching by putting groups or things side by side and put similar things together. For example, leaves of different shapes, sorted out into groups with similar attributes.
- Demonstrate several pairs of groups of objects, find out which group has more or less number of members or objects.
- Ask learners to name the objects.
- Ask learners to pair objects from one group with those in the other group.
- Explain to learners that the process of pairing out objects from different groups is called matching.
- Let learners match several groups of objects and find out which group has more or less than the other or similar in number.

Comparing objects – this is a process of finding out which object is longer than, bigger than, wider than and shorter than the other.

- Let learners have sticks of different lengths.
- Ask learners to select pairs of sticks and indicate which one is longer or shorter by bringing them together side by side.
- Let learners compare several pairs of objects to find out which object is wider than, shorter than, lighter than the other.
- Similarly, compare several pairs of groups of objects to find out which group has more or less members.
- Compare using more attributes such as colour, shape and usage.

Ordering objects – this is arranging things according to a given condition or pattern.

- Demonstrate ordering using three sticks of different sizes:
 - match the sticks to establish which one is short, shorter and shortest
 - arrange the sticks from short to shortest or shortest to short
 - arrange bottles of different sizes and shapes by putting similar ones together
- Let students have two groups of objects with different members.
- Let them place the objects beginning with the group that has more members.

- Let students place the groups in a line, from the one with less members to the one with more members.
- Let learners order more pairs of objects according to size, and number. On number begin with two groups and gradually move to more groups.

Mixing objects - this is putting objects together from different groups or containers into one group or container.

- Demonstrate mixing using bottle-tops and beans, stones and seed shells, and coins and bottle-tops.
- Let learners mix stones and seeds, bottle-tops and beans, seedshells and coins.
- Let learners have a container with a mixture of objects, to find out the quantity of each kind of objects in the mixture.

Joining objects - this means extending the length of an object or its width.

- Demonstrate joining two reeds, two bottles, two sticks, and two bricks.
- Let the learners join the objects together to get a feel of the joining process.
- Let five students join hands.
- Let four students join their rulers.

Care when using TALULAR in a form of realia

As said earlier, realia are real objects the teacher can use in the classroom for teaching and learning. Care when using realia in the classroom includes:

- Learners should be discouraged from putting small stones and bottle-tops into their mouths and putting seeds into their noses and ears.
- Handle live animals or insects with care to prevent stings and bites.
- Discourage pupils from putting leaves and flowers into their mouths because some are poisonous.
- Animal bones must be kept dry all the time to prevent them from producing bad smell in the classroom.
- Live realia should be set free after use by taking them back to their natural habitats.

TALULAR for numeracy development

The need to give learners of mathematics the experience of handling concrete objects as Jean Piaget advocates, cannot be overemphasized. Numbers used do not mean anything unless they are associated with real objects. For many children a degree of realism must be introduced into the curriculum to minimize their difficulties. This means aiming at equipping them with the sorts of knowledge that will meet the demands of social competence. TALULAR is one of the most convenient vehicles in promoting this competence.

TALULAR will prove to be invaluable, for once the learners have been led to realise that such TALULAR are really comparable to a precision instrument, they will dismiss the suggestion that they are "kid's bricks" and get down to the technique of using TALULAR to their own advantage. Using TALULAR for developing numeracy has the following advantages:

- Real-life situations may obscure situations but TALULAR secures.
- Manipulation of objects is easier than manipulation of symbols.
- Children will be encouraged to talk about the discoveries they make.
- In using TALULAR the child's actions are parallel with his or her thinking. This enables the teacher to determine how the learner is thinking.

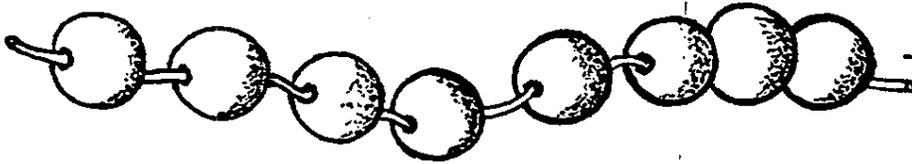
CONCRETISATION

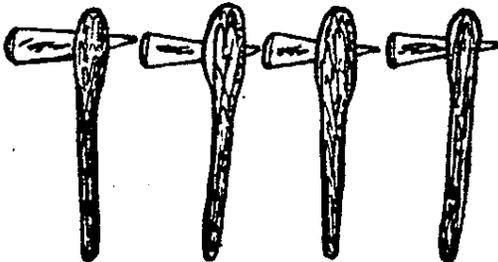
FROM REALIA TO ABSTRACT

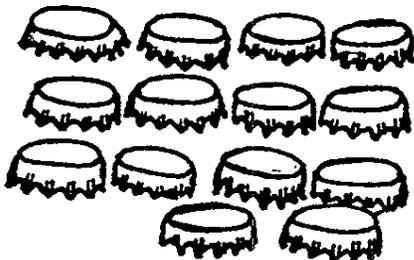


How many are there?

Help learners understand concepts in Mathematics by taking them from concrete to abstract









- Learning can take place at the child's own pace.
- Learning can be self-corrective.
- Work with TALULAR is interesting, so the learner will be motivated to go further.
- This way learners will learn to perform and understand mathematical operations.

It is expected that learners experience with concrete TALULAR should offer a smooth transition into the abstract representation of the concrete objects in the form of symbols. For example:

$$3 + 4 = 7$$

It is less confusing to the learner to have the opportunity to become familiar with TALULAR in the early stages of mathematical experience, before other approaches are introduced. Before a child is able to understand a mathematical idea, s/he should have the opportunity to meet it in a number of situations and to extract the mathematical idea from the situation in which it is embedded.

The teacher has to build up a store of starting points from which his or her pupils' investigations can begin. Such points must be graded according to stages of mathematical development, so that in application the specific needs of each learner may be catered for. Help and practice in the computational skills will be needed to enable the learner to use his or her mathematical ideas in an accurate, satisfactory and practical manner, and must be helped to record his or her experiences in a variety of ways.

The stages learners should go through when developing concepts are illustrated below:

<u>CONCRETE</u>	<u>MANIPULATIVE</u>
<u>PICTURES</u>	<u>REPRESENTATION</u>
<u>SYMBOLS</u>	<u>ABSTRACT</u>

According to Gibson (1980) a concept is an abstraction or idea that permits the learner to classify a variety of related phenomenon into a convenient meaningful category. It is an idea of what a thing is and we get concepts from our everyday experiences. Many teachers always start at the abstract stage and learners will find mathematics difficult to understand because they will have missed many stages in such circumstances. The teaching of concepts should always start with the development of concepts then followed by related skills. Skills are preceded by generalization and finally the application of the concept. This is illustrated below:

<u>CONCEPT</u>	<u>AREA</u>
<u>SKILLS</u>	<u>MEASURING</u> <u>COUNTING</u>
<u>GENERALIZATION</u>	<u>AREA = LENGTH X WIDTH</u>
<u>APPLICATION</u>	<u>STORY PROBLEMS</u>

The teacher must understand the mathematical concepts s/he hopes his or her pupils to achieve, and then structuring the classroom environment to give the opportunity for learning by experience within that situation. The teacher first of all must know and understand some mathematics, and then set about building up a bank or tank of knowledge concerning ways of presenting mathematical experiences in an interesting and exciting manner. This will be achieved through a sound awareness of the availability of good books and well produced TALULAR.

Prototype or sample TALULAR for teaching numeracy

Chart paper and other forms of paper are among the TALULAR that are mostly used in producing number cards, number grids, word cards, and reading charts. Here are some tips on making chart paper and other forms of TALULAR:

Chart paper

Materials

- maize porridge
- A4 size sheets printed on one side, exercise book sheets or covers
- brushes
- scissors, razor blades
- chart paper written on one side
- old calendars
- large envelopes

Method

- With a brush, apply some porridge along the length of an A4 size sheet, 2 cm from the edge, with the blank side facing upwards.
- Take another sheet and let 2 cm from the edge along the length fall over the porridge area with the blank side facing upwards. Exercise book sheets, exercise book covers or large envelopes may be used.
- Press over the joint for the two sheets to stick together. Two sheets of A4 size paper make an A3 size sheet. Depending on how large you want your chart to be, by adding other sheets and pasting them with the brush and the porridge, you can satisfy your desire.
- Cut out any pieces that may be sticking out along the edges after pasting in order to have straight edges
- Calendars are usually printed on one side, and two or more may be joined in a similar manner with the porridge to create a large chart.
- Used chart paper written on one side may be used, or several charts may be joined with porridge to make a large one.

Paper for cards

Materials

- scissors, razor blades or knife
- biscuit boxes, surf boxes, milk boxes, shoe boxes, fruit juice boxes
- cartons or cardboard
- used envelopes (large and small size)
- exercise book sheets, A4 size sheets printed on one side
- porridge

- brushes
- used chart paper written on one side
- old calendars
- sugar paper (used for wrapping things)
- mahewu packets

Method

- Open the boxes and clean them if necessary.
- Cut strips of different sizes depending on the size of the boxes, and the size of the strips you want: 30 cm by 6 cm, 12 cm by 10 cm, or 20 cm by 15 cm.
- Longer strips may be cut out of old calendars, used chart paper (written on one side), the chart paper discussed above, cartons or cardboard.
- If the strips have prints, the prints may be covered by pasting small pieces of paper from the A4 size sheets with the blank side facing upwards.
- Envelopes are normally written on one side. Use the reverse side for writing. Smear some porridge inside the envelope to close it to make it stiff.
- If the envelope is written on both sides, open it out. Cut out the flaps or paste them so that the inside part is free for writing.
- Some strips may be cut from exercise book sheets, exercise book covers, A4 size sheets printed on one side, or off-cuts from a printery.
- If the strips are flimsy, several pieces may be pasted together with the porridge to create stiff strips.

Please note that there are many talular resources that have good surfaces for writing such as pieces of plywood, split bamboo pieces, match boxes, toilet paper tubes, old files, milk bottles, white or yellow plastic sheets and planks.

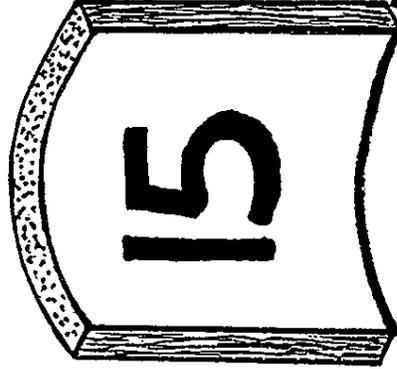
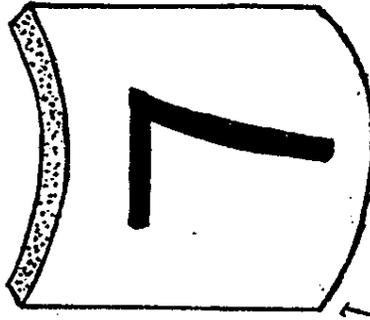
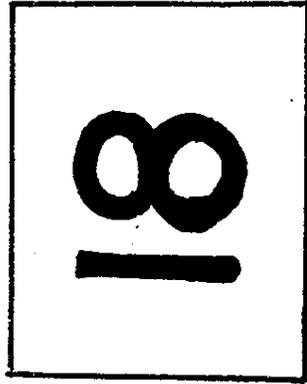
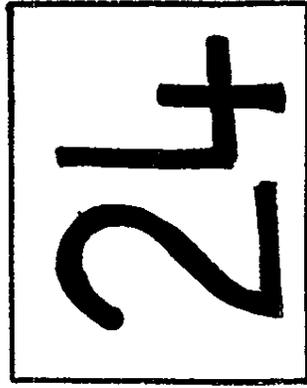
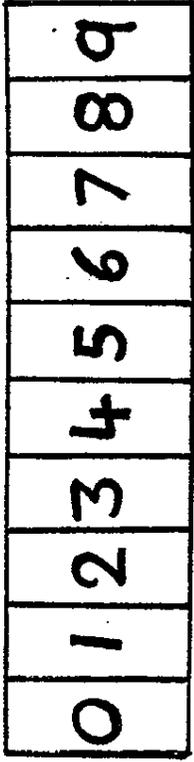
Number cards

Number cards are used for such work as number recognition and practice in the four mathematical process: addition, subtraction, multiplication and division. The teacher may also use number cards for pupils to associate the value of numbers with a quantity by using real objects in a matching exercise. Learners may also be required to practise simple sums. The form number cards take depends on the purpose for which they are made. For instance:

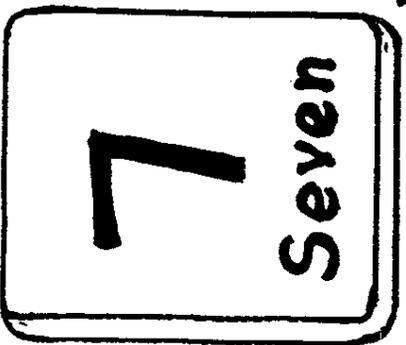
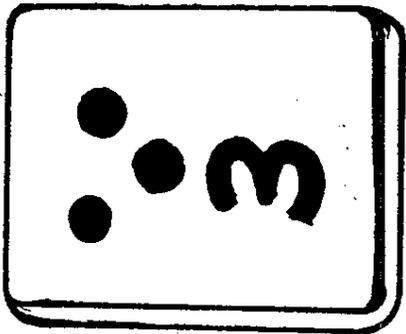
- individual number cards
- picture number cards
- fraction number cards
- mathematical sentence cards

When designing and producing number cards it is important to write neatly to enhance legibility and attract learners' attention. Writing may be done with coloured chalk and running or rubbing a tablet of soap over the writing to prevent the writing from being rubbed off. Charcoal may be used for writing in a similar way.

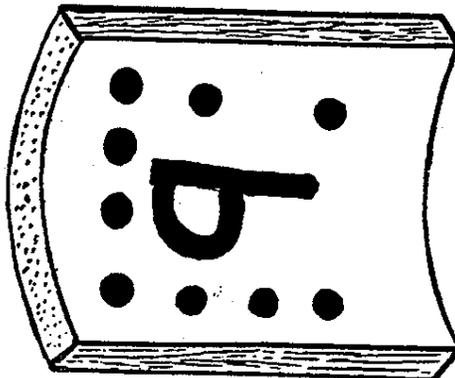
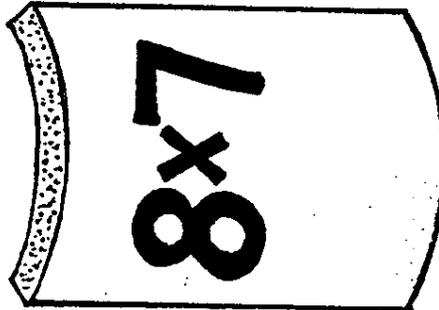
Charcoal may also be mixed with glue (thin porridge) to make writing material. You may use paint, brushes, crayons, pens, dead markers dipped in paint or ink and cardboard shaped into a pen. Mathematical sentence cards usually have answers written on the back. This includes drawing pictures and writing the corresponding number on the back.



Bamboo reading and number blocks



clay slabs



Find the missing numbers

$$8 \times \square = 16$$

$$\square \div 6 = 3$$

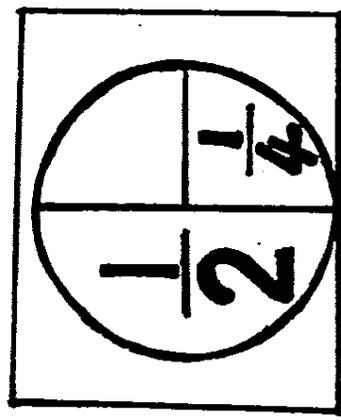
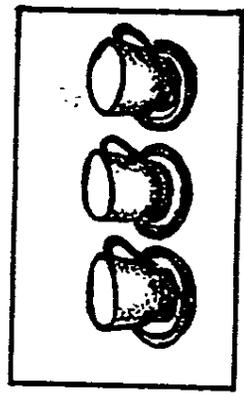
	4	9
5	8	6
8	7	4

$$6 + \square = 15$$

$$\square - 8 = 4$$

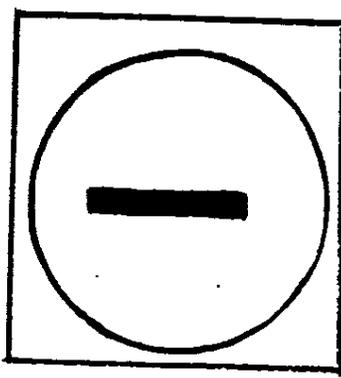
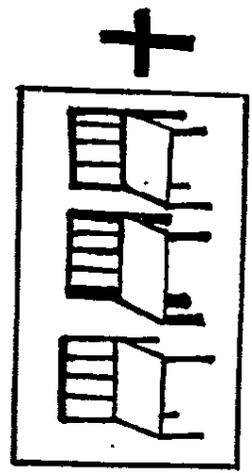
4	4	7
8		2
3	6	6

63



76x9

27



19+28

Number line

A number line is a line drawn on a strip of paper, or wood. It is used for teaching positive and negative numbers. The number line may also be used as an introduction to graphs.

Sometimes it is difficult to understand why $-8 + 6 = -2$, or $-4 - 2 = -6$ without the number line. By means of the number line the above expressions can easily be explained. For example, in $-8 + 6 = 2$, find -8 on the number line, then move six spaces to the right, and you will discover that you stop at -2 . Similarly $-4 - 2 = -6$, find -4 on the number line, then move two spaces to the left. Once again you will stop at -6 .

Materials

- sheets of paper
- pencils, crayons, or pens
- scissors, razor blades or knife
- sellotape, gum, thick maize porridge (nsima/ugali)

Method

- Cut strips of paper 1 metre long and 8 cm wide.
- Draw a straight line along the top edge of the strip.
- Find the mid-point of the number line and write a zero below it.
- Write all the numbers 1 to 10 on the right hand side of the zero and all the negative numbers -1 to -10 on the left hand side of the zero.
- Stick the strip of paper to the wall with sellotape or thick maize porridge (nsima).

Please note that a piece of cardboard or wood may be used instead of paper. It is also possible to draw the number line on the floor or ground to make the lesson more participatory by letting learners walk along the number line to arrive at a certain number.

Number strip

This is a long strip of paper made by joining several strips of paper. It consists of numbers from zero to whatever limit. It is used for number recognition as well as dealing with the four mathematical processes.

Materials

- sheets of paper
- chart paper
- pair of scissors, razor blades or knife
- sellotape, gum, maize porridge, latex from rubber plants
- sticks
- carton

Method

- Cut several strips of paper and join them with sellotape or porridge (other forms of glue may be used).
- Several A4 size sheets of paper (written on one side) may be joined together to make a long strip of paper.
- Write numbers on the strip of paper. Make the numbers big and bold to enhance legibility.

- Provide rollers by fitting one stick to the left hand side of the strip and another stick to the right hand side of the strip, along its width, with glue, porridge, sellotape or by simply tying with a string.
- Make four holes, two at the roof of the carton and two other holes at the bottom part of the carton.
- Fit the lower ends of the sticks into the bottom holes and the upper ends of the sticks into the roof of the carton.
- The number strip is now ready for use.
- Make sure that the number strip is fitted in such a way that only one number is shown or seen at a time.
- With the rollers (sticks) you should be able to move backwards and forwards, and be able to do the following activities:
 - What number is this? (recognition)
 - If we move forward, two steps at which number will we be? (addition)
 - If we move backwards, four steps, at which number will we stop? (subtraction)
 - What is this number multiplied by 8? (multiplication)
 - How many times does 5 go into this number? (division)

Mathematical puzzle cards

A mathematical puzzle is a number trick the teacher gives to learners in all the mathematical processes in order to stimulate learners' thinking or consolidate a particular concept. There are many different kinds of number tricks. The form they take is determined by whoever devises them and the purpose for which they are intended.

Materials

- sheets of paper
- used envelopes
- cardboard
- pencils, crayons or pens
- pair of scissors, razor blades, or knife

Method

- cut 15 cm square pieces of paper. Some pieces of paper may be more or less than 15 cm square.
- write appropriate numbers on the cards to suit each number trick you want. You may also write on the reverse side of used envelopes as shown below:

$$60 \div \square = 5$$

- cut as many pieces of paper as possible. Cardboard is useful here. Learners may complete in groups using the mathematical puzzle cards.

Number grid

A number grid is a chart with numbers written in boxes or squares. The numbers may range from 1 to 100 or they may go beyond 100. The teacher uses the chart by letting learners identify or recognise some of the numbers as requested. The four mathematical processes can be worked out as well using the number grid. It is also possible to have blank squares or boxes on the grid and have the numbers for those squares written on separate cards for pupils to choose and put in the appropriate blank square. You may say, "Find the missing number and fill the gap or box with a correct card."

Materials

- chart paper
- cardboard
- ruler (split bamboo pieces make good talular rulers)
- pencils, crayons or pens
- maize porridge or glue
- string
- pair of scissors, razor blades or knife

Method

- Draw a hundred squares on the chart.
- Write numbers ranging from 1 to 100.
- Paste the chart to the cardboard.
- Tie a string along the top edge of the cardboard for hanging.
- You can stick gum or thick maize porridge on the back of each card that is to be matched with a blank square or with another number on the grid.

A TALULAR multiplication calculator

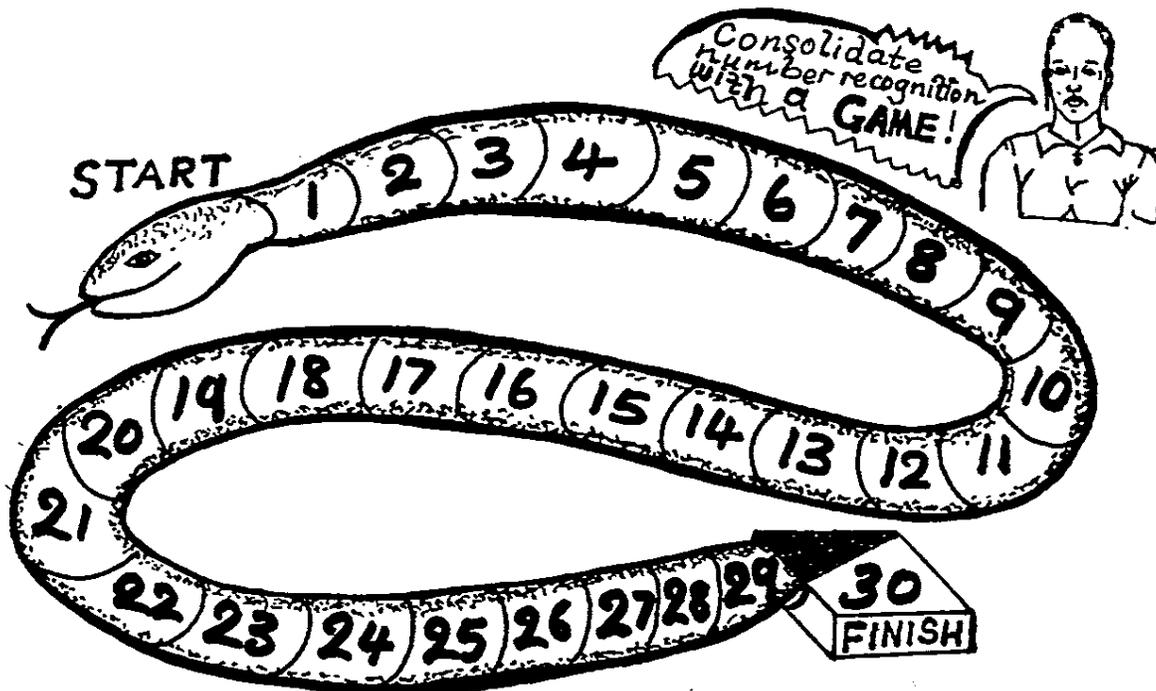
A talular multiplication calculator is a chart or number grid specifically designed to enhance calculation of answers to multiplication numbers from the multiplication tables. It is mnemonic, that is, a memory aid. To use the calculator in a participatory way, it should be hung on the wall and one or two learners may be requested to show the class how they arrive at an answer on the calculator. To find the product of any two numbers, for example, 7×8 , take one stick and place it horizontally along the line of squares where 7 marks the first square. Place another stick vertically along the line of squares where 8 marks the first square. The two sticks will cross each other at 56. Therefore, $7 \times 8 = 56$. Put in another way, the answer to any multiplication sum or sentence is found where the sticks cross each other when one is placed horizontally and the other one is placed vertically on the calculator.

Materials

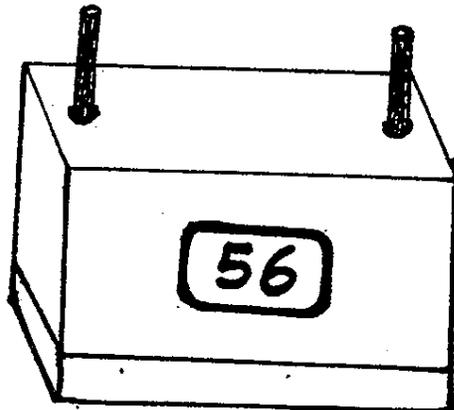
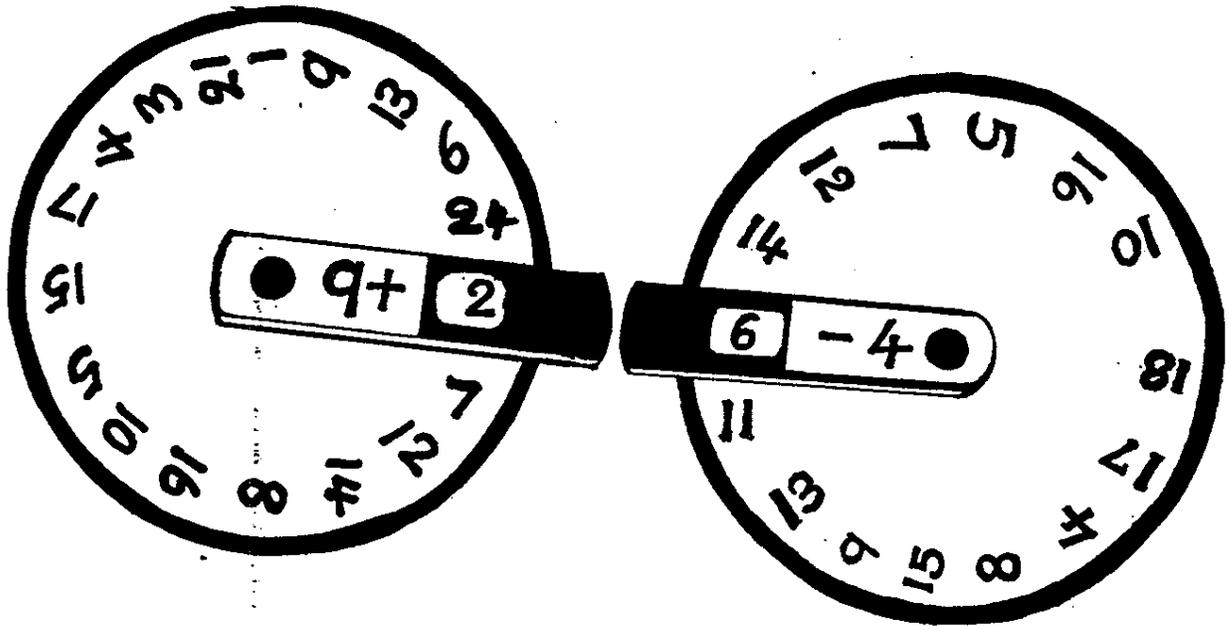
- chart paper
- cardboard
- ruler
- pencils, crayon or pens
- porridge, gum or glue
- scissors, razor blades or knife
- string
- two sticks

SAY THESE NUMBERS!

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

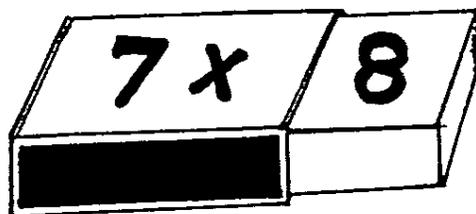


1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



X	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

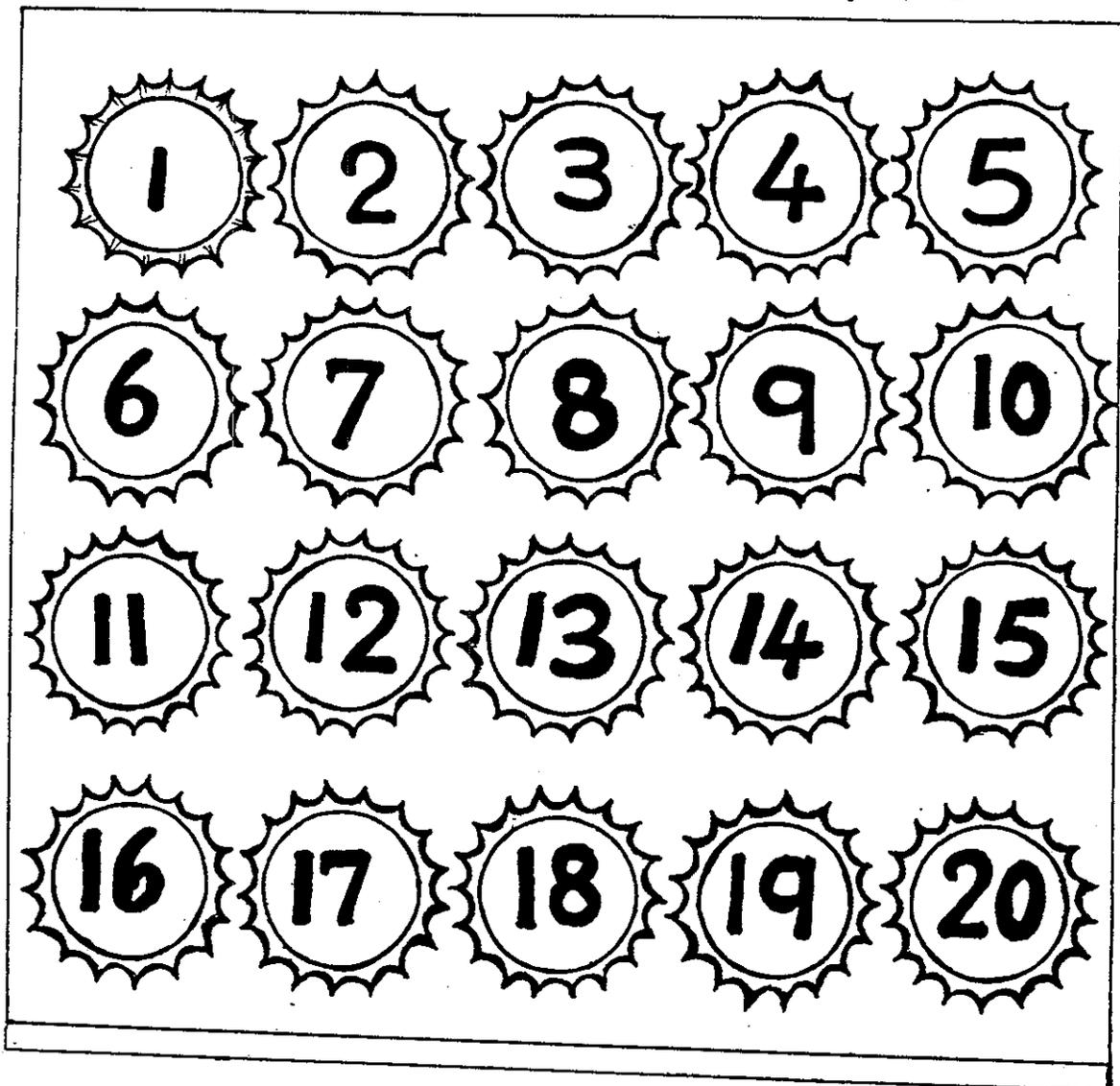
A TALULAR MULTIPLICATION
CALCULATOR



*With matchboxes
extend the work
to other processes
such as addition,
subtraction
and division*

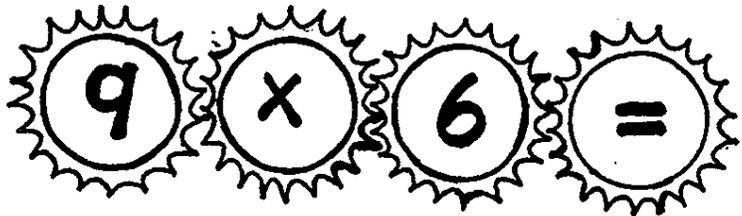


NUMBERS INSIDE BOTTLE TOPS



Multiplication

	ch	ar	t	s
1 x 4 =				
2 x 4 =				
3 x 4 =				
4 x 4 =				
5 x 4 =				
6 x 4 =				
7 x 4 =				
8 x 4 =				
9 x 4 =				
10 x 4 =				
11 x 4 =				
12 x 4 =				



Discover the magic of using bottle tops to do addition, subtraction, multiplication and division!



THE LITERACY OF MATHEMATICS

one	two	three	four
five	six	seven	eight
nine	ten	eleven	twelve
thirteen	fourteen	nineteen	twenty
thirty	forty	fifty	sixty
seventy	eighty	ninety	hundred
rectangle	square	circle	cube
cuboid	triangle	sphere	cylinder

add	equals	altogether
subtract	plus	minus
take away	and	smaller than
bigger than	Less than	more than
odd	even	metre
centimetre	kilogram	abacus
score	measure	weigh

Match figures with words

11

12

13

14

15

16

17

18

19

20

21

22

thirty

forty

fifty

sixty

seventy

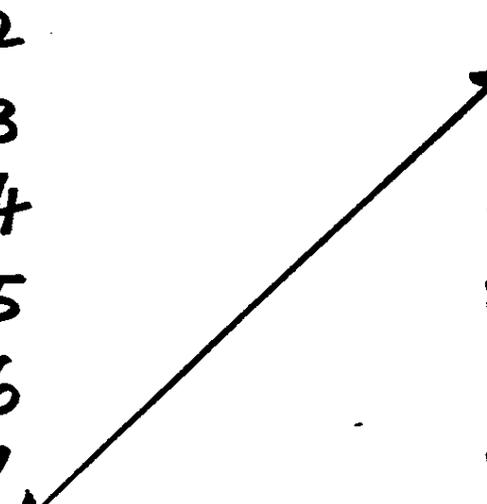
eighty

ninety

hundred

fifteen

seventeen


 eighteen

eleven

twenty

twelve

thirteen

fourteen

twenty-two

sixteen

twenty-one

nineteen

50

60

40

30

100

90

80

70

Method

- Draw 121 squares on a chart.
- Leave the first top square blank.
- Write numbers 1 to 10 along the top line of squares.
- Write numbers 1 to 10 below the blank square, along the left hand side line of squares.
- Then for every number you have written on the left hand side of the chart, write all the multiples of that number until you get to the last line of squares on the right hand side of the chart.
- Paste the chart to a cardboard.
- Tie a string along the top edge of the cardboard for hanging.

Number tray or a place value box

A number tray or a place value box is a tabular resource used for teaching number value. In counting, relationships between ones, tens, and hundreds can be shown during the early stages of learning numeracy. Normally, it consists of three compartments marked H, T, O, respectively (Hundreds, Tens and Ones). Pieces of paper, sticks, stones, bottle tops, and seeds are used to represent ones, tens and hundreds. For example, a number such as 124 is illustrated by putting four pieces of paper in the **ones** section, two pieces of paper in the **tens** section and one piece of paper in the **hundreds** section.

Materials

- cardboard
- crayons, paint and brush
- a sheet of paper
- a pair of scissors, razor blade or knife
- glue, porridge or sap from rubber plants
- bottle tops, stones, seed pods, beans, maize, bottles and maize cob cores

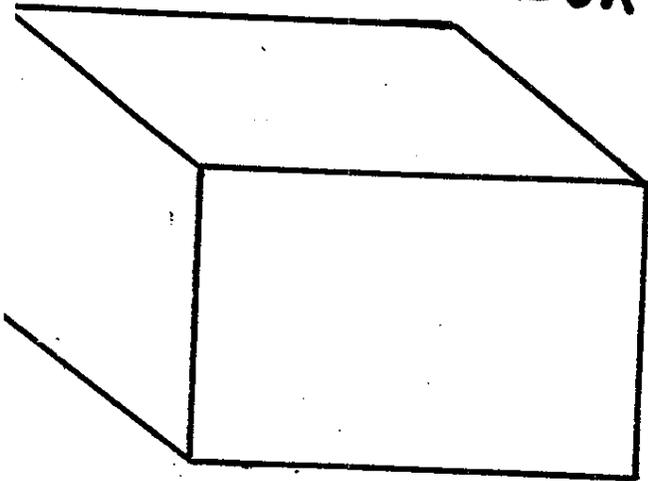
Method

- Make a box with rectangular sides, each side measuring 20 cm long and 10 cm wide.
- Cut the box from one of the top corners diagonally.
- Make 3 compartments by pasting triangular pieces of cardboard inside the structure obtained after cutting part of the box.
- Sew the triangular pieces of cardboard in place with thread and needle if glue is not available for pasting.
- Label the compartments H, T, O respectively to stand for Ones, Tens and Hundreds.
- Use the stones, bottle tops, seed pods, beans, sticks, maize, bottles, or maize cob cores to illustrate number values

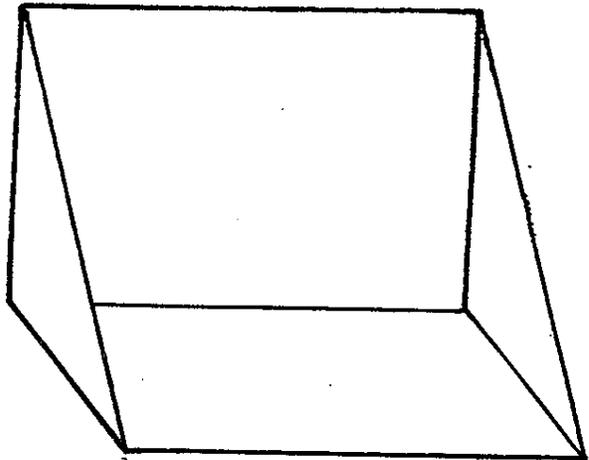
Spike abacus

A spike abacus is an alternative to a number tray. It consists of a wooden block as a base and vertical spikes fitted into it. Counters such as bottle tops with holes, pieces of cardboard with holes or pieces of a reed can be used to break numbers into Ones, Tens and Hundreds. For example, the value of 256 can be illustrated on the abacus: 6 bottle tops into the first spike on the right hand side (Ones), 5 bottle tops into the middle spike (Tens) and 2 bottle tops into the other spike on the left hand side (Hundreds). It is also possible to use different objects to represent Ones, Tens and Hundreds on the abacus.

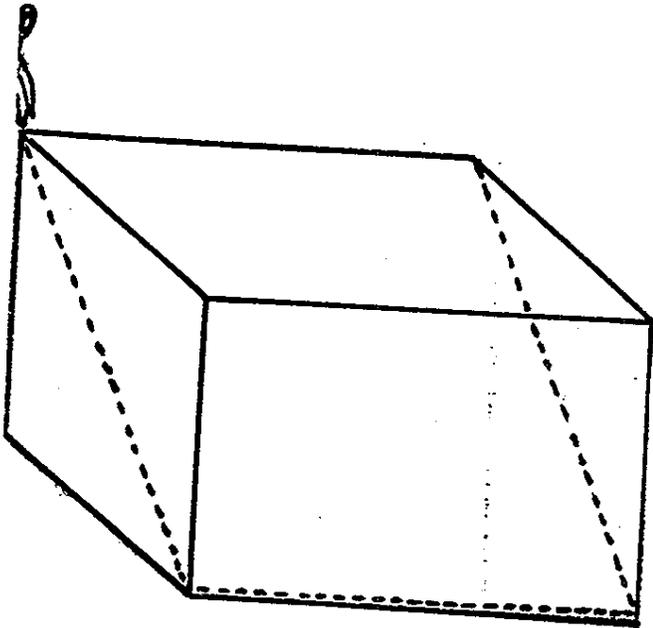
THE PLACE VALUE BOX



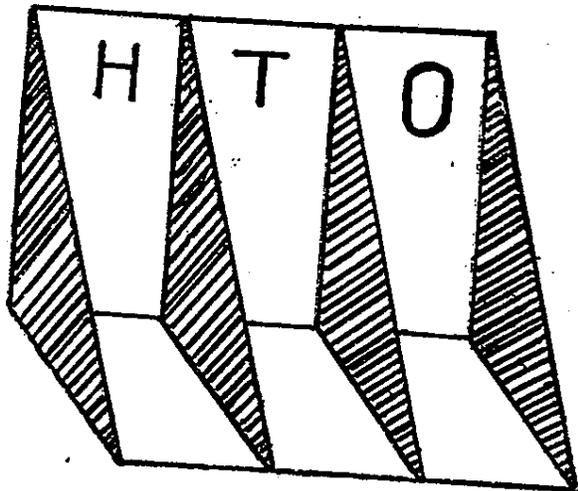
1.



3.



2.



4.

Materials

- bicycle spokes or pieces of wire
- iron rod sharpened at one end
- matches
- firewood or charcoal
- knife, panga or adze
- piece of wood or plank
- porridge
- grains of sand
- reed
- nail
- stone
- clay

Method 1

- Cut a piece of wood or plank 20 cm by 8 cm.
- Flatten the top part and the bottom part of the piece of wood with a knife, panga or adze.
- Make a fire and make the sharp end of the iron rod red hot.
- Make three or four holes at the top surface of the piece of wood or plank, with the iron rod.
- Mix some porridge with grains of sand.
- Insert the spokes into the holes and push the mixture of porridge and sand into the holes to hold the spikes in place.
- Leave it to dry.
- Make a hole at the centre of each bottletop with the nail and stone. The holes allow fitting the bottletops into the spikes.
- Cut pieces of reed with the knife. These have holes in them. You can use them apart from the bottletops.
- Cut similar pieces to the reed pieces from toilet paper tubes.
- Paint the pieces of reed or toilet paper tubes if necessary.

Method 2

- Make a clay slab 20 cm by 8 cm.
- Fit the spokes into the clay slab while the clay is still wet.
- Cover the slab with porridge and pieces of paper to prevent it from breaking.
- Leave the clay slab to dry. It is now ready for use.

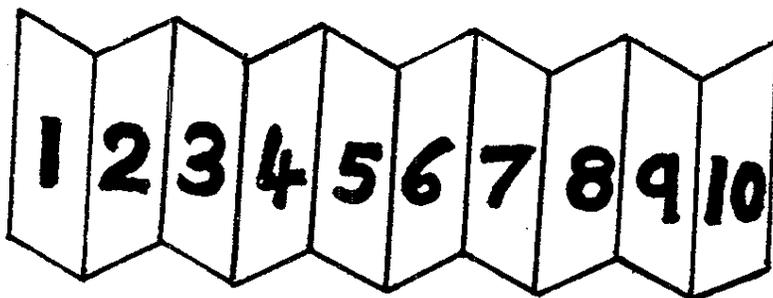
Zigzag number book

The zigzag number book is a strip of paper folded into pages. It is made in such a way that it can stand. Learners can be asked to recognise or identify some of the numbers. Also, they can put articles that correspond to particular numbers beside it.

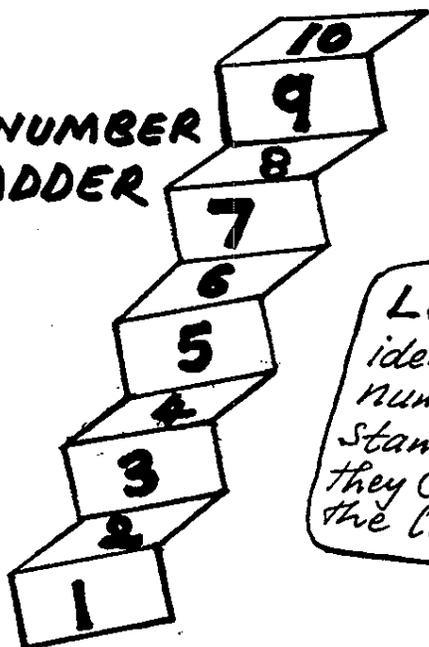
Materials

- sheets of paper
- pencils, crayon or pens
- pair of scissors, knife or razor blades
- porridge

A NUMBER BOOK



A NUMBER LADDER



Learners recognise the number they look at on each page of the book

Learners identify the number they stand on as they climb up the ladder



Method

- Cut strips of paper 1 metre by 10 cm. Cut as many as possible.
- Paste small pieces of paper with porridge to make a long piece, if chart paper for making the strips is not available.
- Fold each strip at regular points to make the pages of the zigzag book.
- Write numbers 1 to 10 or more, one number written on each page. The zigzag book is now ready for use.
- Make a **vertical number ladder** by simply changing the position of the zigzag number book. Place the zigzag number book on the floor with the side with numbers facing upwards, to change it to a vertical number ladder.

Number circle

A number circle is a talular resource made in a form of a clock face. It is used to practise and revise the four mathematical processes: addition, subtraction, multiplication and division. A card with a number is put at the centre of the number circle. The number on the card is either a multiplier, a divisor, a multiple or a dividend for the other numbers. The teacher decides what should be done in each case.

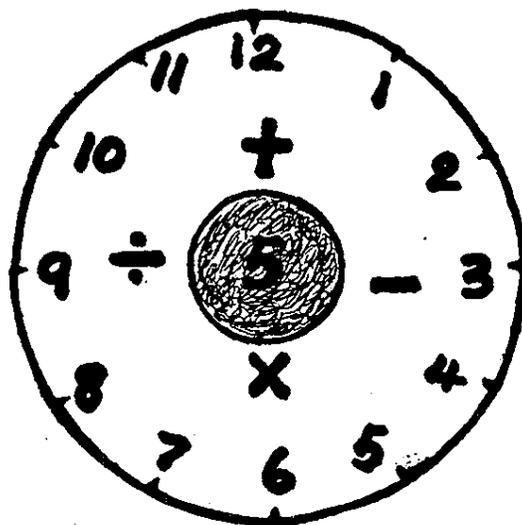
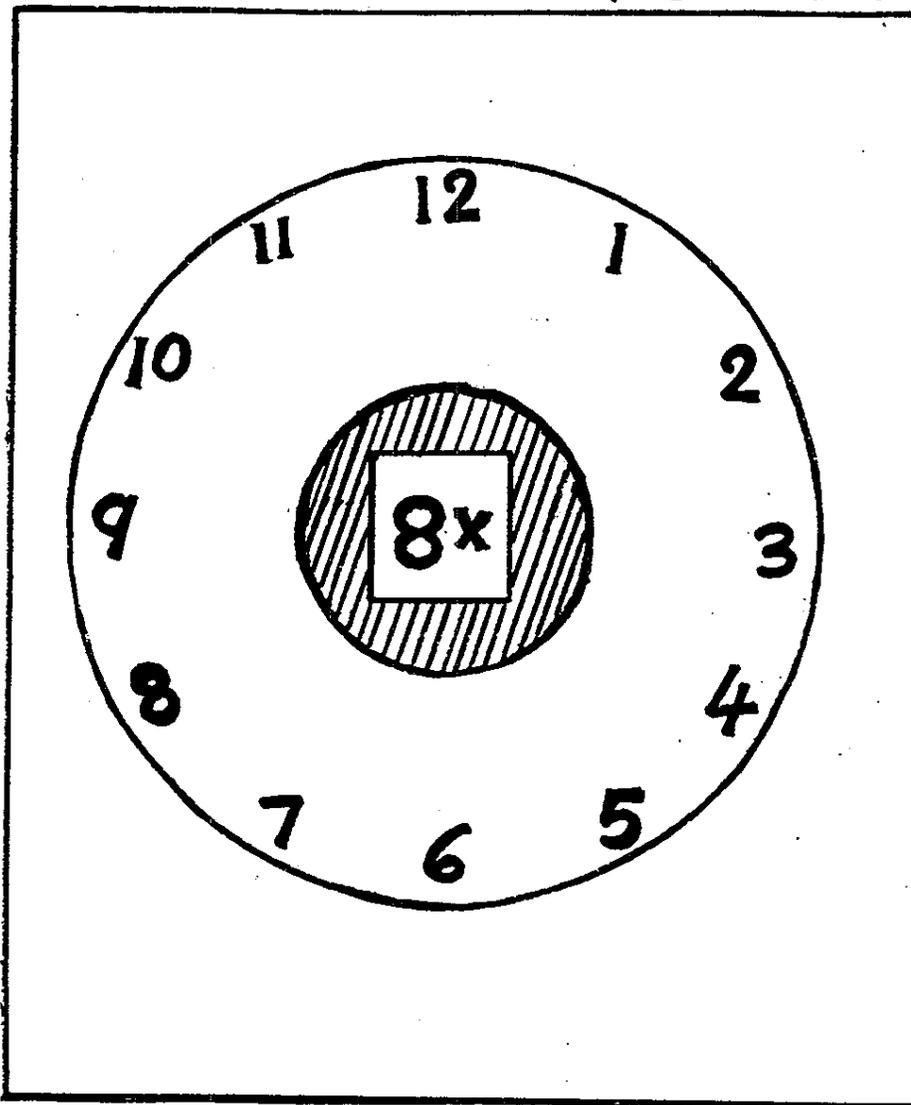
Materials

- cardboard
- sheet of paper
- pencils, crayons or pens
- pieces of flannel, cloth, sack or blanket
- pair of scissors, knife or razor blade
- glue or porridge
- cotton wool
- string

Method 1

- Cut a piece of cardboard 30 cm square.
- Cut a piece of paper 30 cm square from the sheet of paper.
- Stick the piece of paper on the front surface of the cardboard to give a good background for the numbers that are written on it.
- Draw a circle with a string and a pencil or chalk.
- Write numbers 1 to 12 along the circle.
- Cut a piece of flannel, cloth, blanket or sack 10 cm square or 5 cm radius.
- Stick the piece of flannel or blanket in the centre of the circle.
- Cut pieces of paper 6 cm square. Cut as many as possible, up to 30.
- Stick cotton wool at random with the porridge, on the back of each card to be used with the number circle. It is possible to stick pieces of the same material you stick at the centre on the back of each card instead of cotton wool. These materials act as adhesives which hold the cards on the piece of flannel or blanket at the centre of the number circle.
- Stick an envelope on the back of the number circle for keeping the cards or the envelope may be kept separate. A separate box or tray may be used instead of an envelope.
- Use sand paper, gum or pins instead of cotton wool, if available.
- Change the number circle into **clock face** for teaching telling the time by pinning hands of a clock from paper, cardboard, wood or bamboo in the centre of the circle.

THE NUMBER CIRCLE



All the four processes, addition, subtraction, multiplication and division are possible with the number circle!

- Make the activity participatory by writing expected responses on cards that are kept in a box, or simply put on the floor or table. Learners select appropriate cards with the responses, which they show to the class.

Method 2

- Paint the centre of the circle black or blue instead of pasting a piece of flannel or sack or blanket.
- Write each number to be used at the centre with a piece of chalk.
- Paste pieces of paper, cut in the shape of the symbols that depict addition, subtraction, multiplication and division, around the painted area.
- Point to the numbers involved and an appropriate symbol before learners give a response.

Snakes and ladders

Snakes and ladders is a game in mathematics, based in the main on counting. Remember, games are talular non-material resources. You have learned that learning should be fun. Games are means with which to motivate, stimulate, energize the learners or reinforce what has been taught. The snakes and ladders game helps in consolidating addition and subtraction processes in the early stages, although any age group can play it. The ladders cause an upward movement as a gain, whereas the snakes effect a downward movement as a loss. A piece of wood called a **dice** is thrown and the number shown when the dice stays still is used to determine the number of moves a player has to make on the snakes and ladders board.

Materials

- a sheet of paper or cardboard
- pencils, crayons or pens
- pair of scissors, knife or razor blade
- piece of wood
- buttons, seeds, stones, bottletops

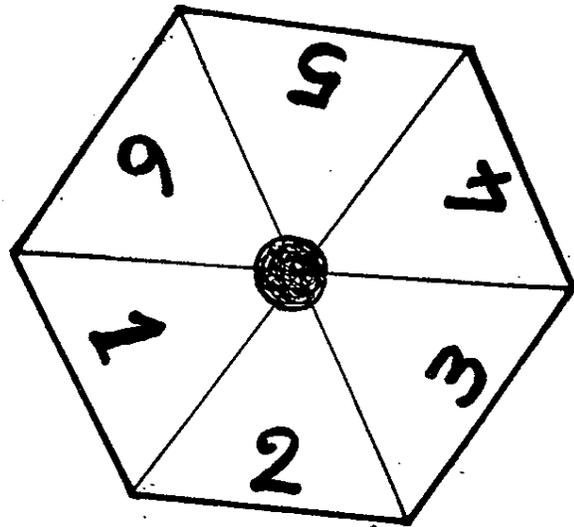
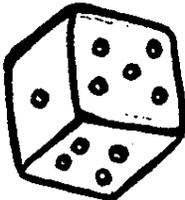
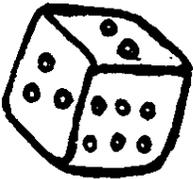
Method 1

- Cut pieces of paper or cardboard 25 cm square
- Divide each card into 2.5 cm squares. There should be 100 of them.
- Write numbers 1 to 100 beginning from the first square on the left hand side of the base line of squares.
- Draw any number of ladders each joining any two squares on the card.
- Draw any number of snakes each joining any two squares.
- Make 1.5 cm cubes from the piece of wood. Each cube is called a **dice**.
- Make holes on the respective sides of the cubes as follows:
 - the first side has one hole to represent 1
 - the second side has two holes to represent 2
 - the third side has three holes to represent 3, and so on.
- Cover each cube with pieces of paper and porridge and use dots instead of holes, if this is preferred.
- Use clay to make the cubes instead of wood, by pasting pieces of paper with the porridge on the surface. Numbers 1 to 6 are represented by dots on the sides of each cube.
- Use buttons, seeds, stones or bottletops as players on the board.

SNAKES AND LADDERS

100	99	98	97	96	95	94	93	92	91
81	82	83	84	85	86	87	88	89	90
80	79	78	77	76	75	74	73	72	71
61	62	63	64	65	66	67	68	69	70
60	59	58	57	56	55	54	53	52	51
41	42	43	44	45	46	47	48	49	50
40	39	38	37	36	35	34	33	32	31
21	22	23	24	25	26	27	28	29	30
20	19	18	17	16	15	14	13	12	11
1	2	3	4	5	6	7	8	9	10

DICES



cardboard



a reed spinner

Method 2

Make a spinner as follows:

- Cut a piece of cardboard 8 to 10 cm square.
- Draw a circle 3 to 4 cm radius.
- Divide the circle into 6 equal parts with radii from the centre.
- Draw straight lines joining the points where the radii touch the circle, to change the circle into a hexagon (six sided figure).
- Cut off part of the cardboard outside the straight lines that join the ends of the radii.
- Write numbers 1 to 6 along the sides of the hexagon so made.
- Cut a piece of reed 3 cm long.
- Make a hole in the centre of the piece of cardboard, the same circumference as that of the reed.
- Fit the reed piece into the hole. Your spinner is now ready for use.

Bingo

Bingo is another popular game in Mathematics as much as it is in language teaching. It is played in order to motivate, energize or stimulate the learners as well as consolidate some mathematical concepts or processes. Any age group can play the game.

Materials

- cardboard, paper
- pencils, crayons or pens
- scissors, knife or razor blade
- porridge

Method

- Cut pieces of cardboard 20 cm by 15 cm. Cut up to 10 pieces.
- Divide each piece of cardboard into 5 cm by 4 cm boxes.
- Write some numbers at random on the Bingo cards.
- Mark players' cards A and the master card B.
- Prepare a Master Card. This is the card that bears all the numbers from the learners' cards including distracters.
- Prepare some cover cards, for use in covering any numbers you call out for learners to identify or recognise. Cut as many cover cards as there are boxes on each Bingo card.
- Put your students into groups and give each group a Bingo card and some cover cards.
- Keep the Master Card away from the players.
- Call out some numbers from your Master Card and let learners complete in identifying the numbers called out by covering them on their cards with the cover cards. The winner is the group that covers all the numbers called out correctly before any other group does so. The winning group must shout "BINGO" to announce their victory.

Using the hand to introduce zero and one

Some teachers have great difficulty in teaching the difference between zero and one. TALULAR advocates for the use of the hand as a human resource that is readily available.

Procedure

- Stretch the fingers on either hand.
- Give a 1 to each of the fingers so that you can say " $1 + 1 = 2$ ", that is one finger and another finger make two fingers. " $2 + 1 = 3$ ", that is, two fingers and one finger make three fingers.

THE BINGO GAME

9	15	12
56	25	96
20	32	45

A

15	56	45
75	55	81
96	32	20

A

17	32	96
20	81	55
75	56	

A

12	55	27	9	15	12
45	56	32	56	25	96
36	25	20	20	32	45
15	56	45	17	55	
75	55	81	20	81	32
96	32	20	75	96	56

12	55	27
45	56	32
36	25	20

A



BINGO B: MASTER

- To introduce the zero, refer learners to the spaces between the fingers to represent zero. so that you can say:
 "1 + 0 = 1", that is one finger and no finger is the same one finger.
 "2 + 0 = 2", that is two fingers and no finger are the same two fingers. and so on.
- Tell the learners that one thing is represented by the figure 1 and nothing is represented by 0.
- Do several examples with the learners to inculcate the concept of addition in the learners' minds.

TALULAR for teaching about money

There are many objects in the local environment that can be used as TALULAR for teaching money, ranging from mere counters to realia, that is real money.

Materials

- bottle-tops, stones, seeds, or small shells
- paper
- crayons or pencils
- coins
- charts with specimen money prints
- bank notes

Method

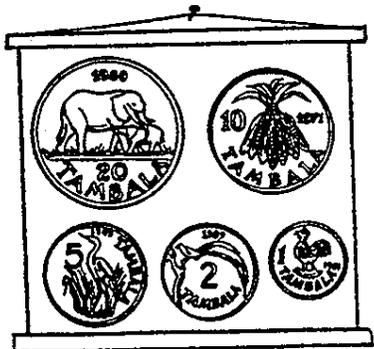
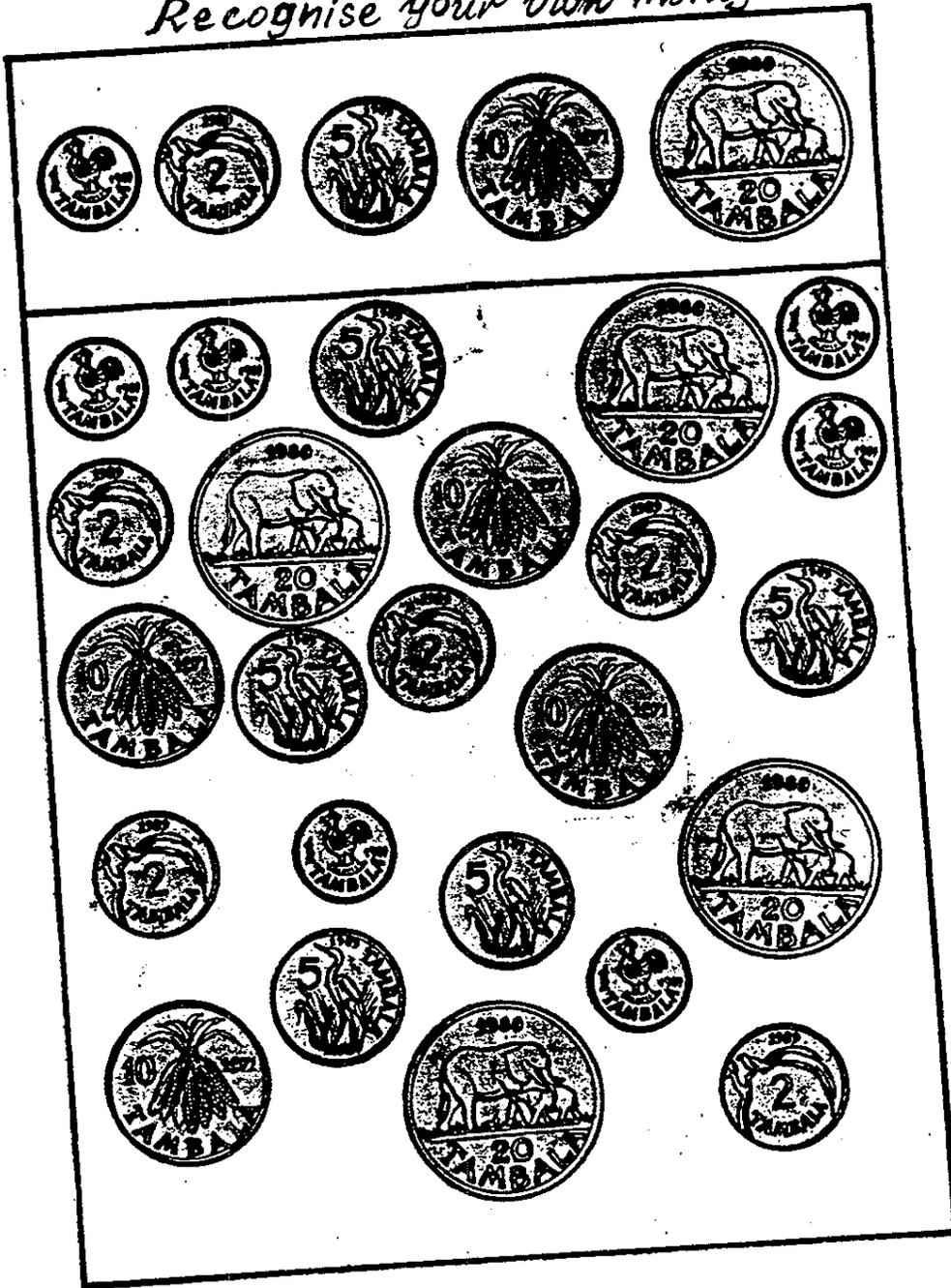
- Introduce the work on money by relating it to Barter, a trade in which there was direct exchange of goods. This was TALULAR at its best, although our ancestors did not call their trade TALULAR. It is this idea of exchanging things that makes the teaching of money simple. This means you can use many different types of objects to represent money as a means of exchange.
- Use realia to help the learners get a feel of what different forms of money are like.
- Use specimen charts that are usually supplied to the public by Banks. Your local branch may assist.
- Use bottle-tops, buttons, seeds, stones, and shells to represent coins and cut pieces of paper to represent notes. Give the pieces of paper their unit values such as one pound, five pounds (Britain), Ten rand, Twenty rand (South Africa), Five Kwacha, Ten Kwacha (Malawi), One dollar, Five dollars (USA), and so on.
- Make paper coins through rubbing. Put a coin under a piece of paper. Rub over the coin around the area of the piece of paper directly above the coin with a pencil. The pattern on the surface of the coin will be transferred to the piece of paper. Make many rubbings with different coins. The money impressions made can be cut out and pasted to pieces of cardboard, to sustain their use.

The calendar and Mathematics

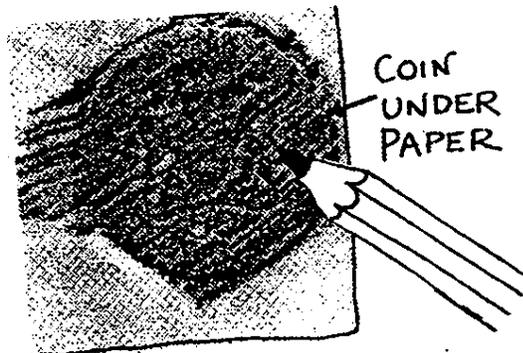
Usually as soon as a year ends, calendars associated with the year are thrown away. The teacher who keeps old calendars has more advantages over those who throw these away; for example:

- Integration of language and mathematics is enhanced. In language learners learn days of the week, names of months and also describe events in relation to the days and months in a calendar, and so on. In Mathematics learners may be asked to identify or recognise any numbers, add some numbers, subtract one number from another, divide one number by another and multiply one number by another.

Recognise your own money



Identification of coins

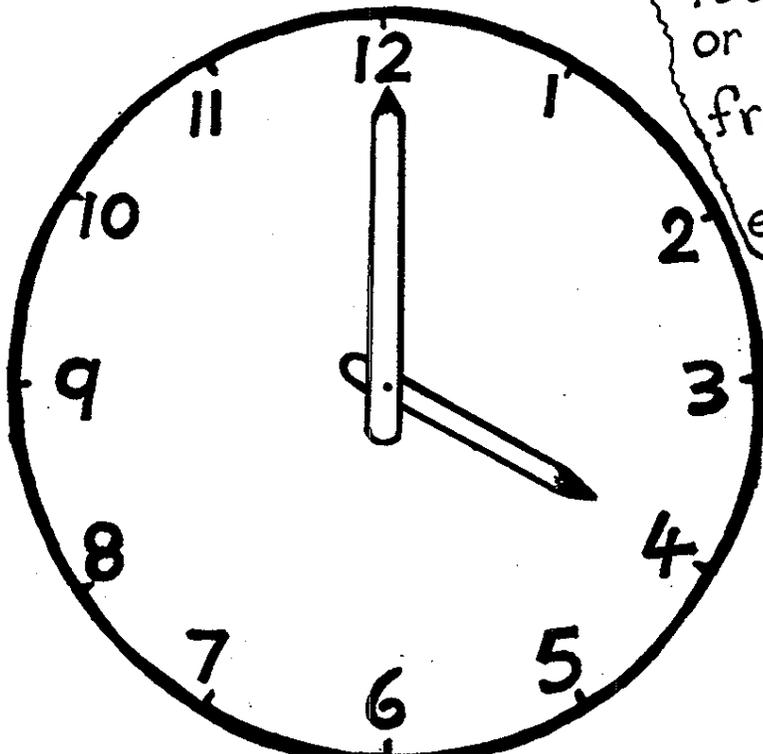
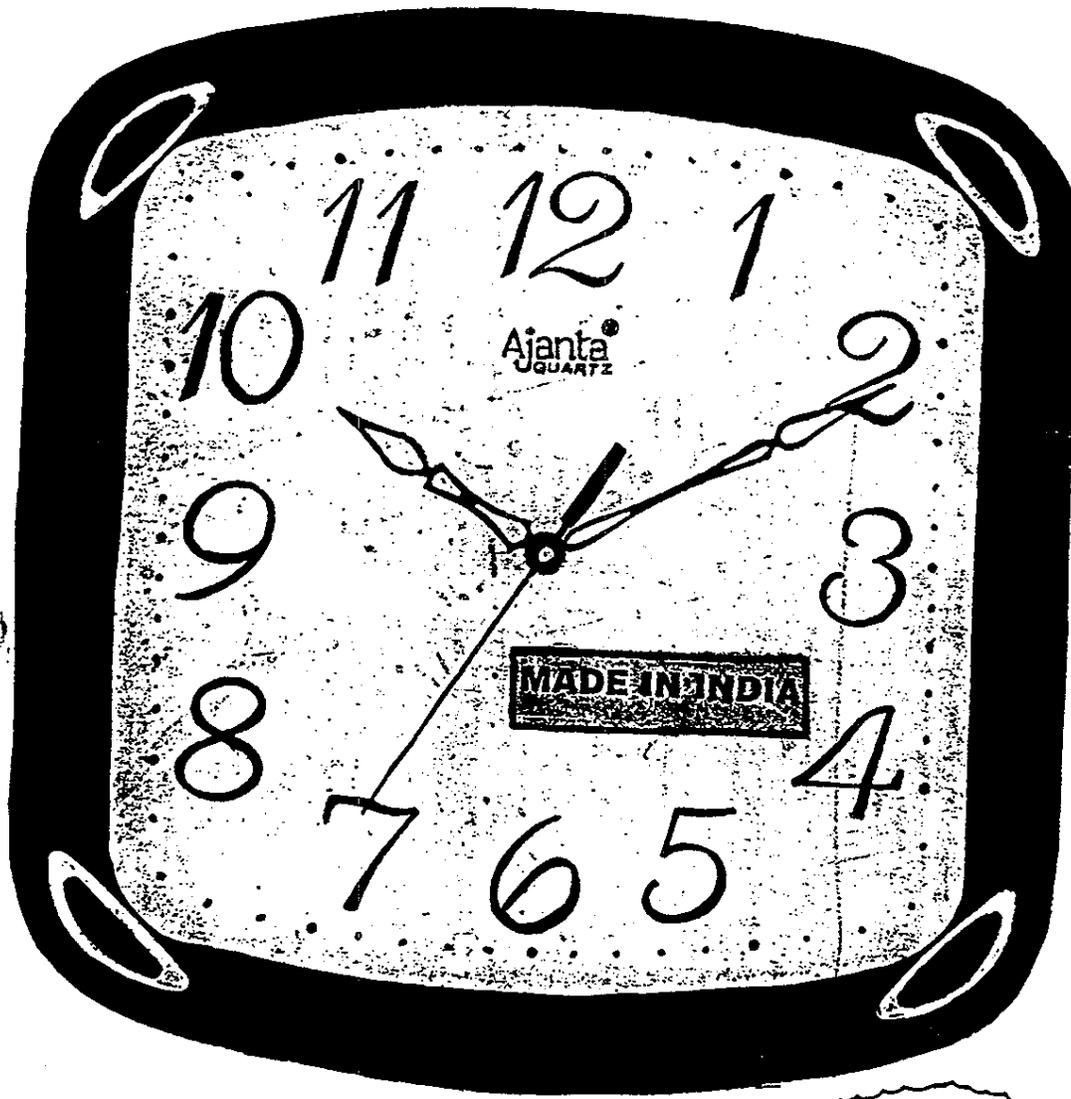


Creating impressions by rubbing.

Sun.		7	14	21	28
Mon.	1 <i>New Years Day</i>	8	15 <i>John Chilembwe's Day</i>	22	29
Tues.	2	9	16	23	30
Wed.	3	10	17	24	31
Thu.	4	11	18	25	
Fri.	5	12	19	26	
Sat.	6	13	20	27	

JANUARY 2001

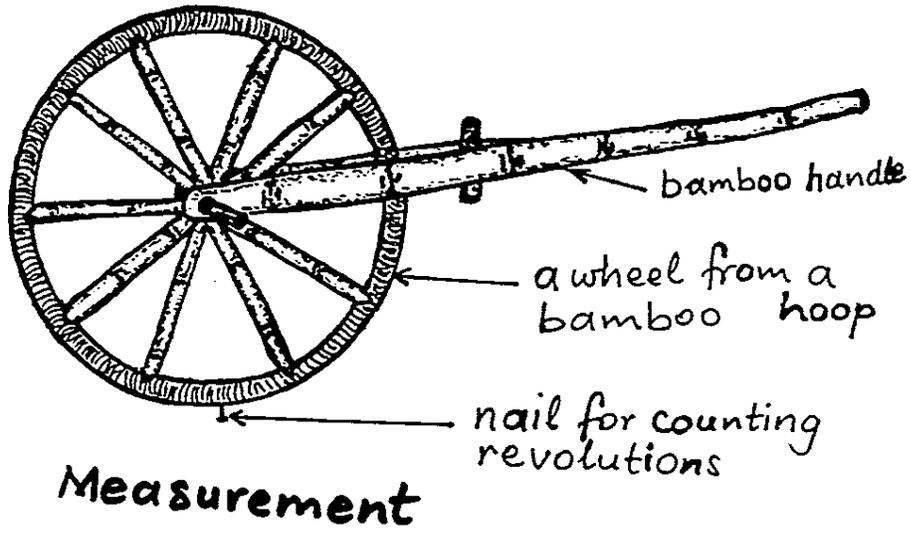
TELLING THE TIME



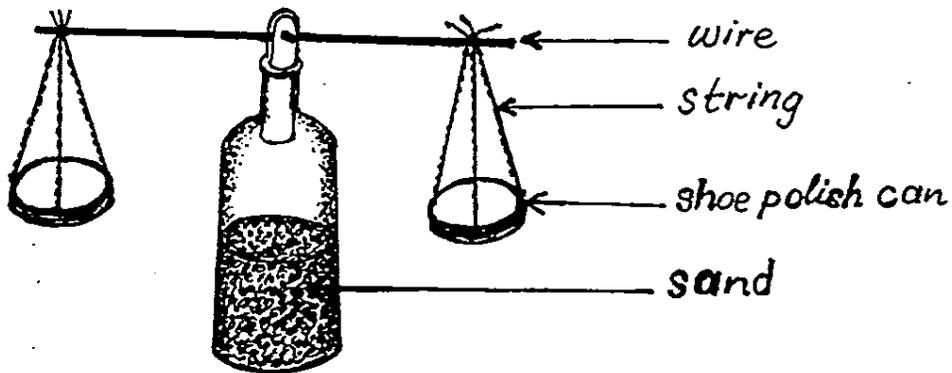
You can draw
or get one
from the
local
environment



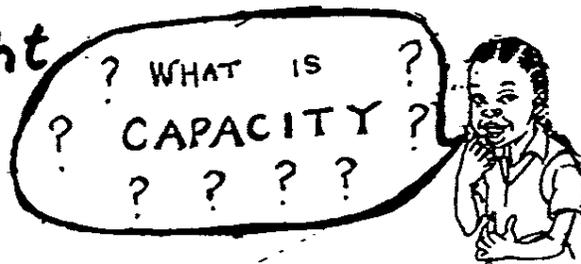
THE TRUNDLE WHEEL



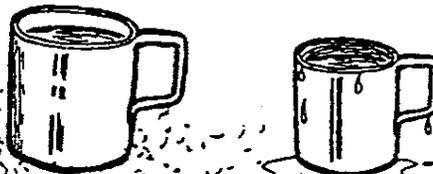
A SIMPLE BALANCE



Weight



What other containers would you use for capacity?



- A calendar can be used to teach the length of time units such as seconds, minutes, days, months and years as well as drawing relationships between them.

A geo-board

A geo board is a wooden board made up of squares with nails or tacks hammered into each of the corners of every square. It is used in a number of ways:

- Making geometrical shapes with a rubber band.
- Finding the area of geometrical shapes.
- Finding the perimeter, that is, the distance around something.
- Relating the geo-board to other areas where knowledge about surface area is useful. For example, associating it with the area of the walls of a house.

Materials

- wood
- pencil or pen
- nails or tacks
- hammer
- rubber band or string

Method

- Find a large square piece of thick wood.
- Draw a large square on this piece of wood.
- Divide the large square into small squares.
- Find some small nails or tacks.
- Hammer carefully a tack or nail into the wood wherever two lines cross. Be sure that there is a nail or tack at every point where the lines cross.
- Try to hammer each nail so that the heads of all the nails are the same height.
- Put thin rubber bands over the nails to form rubber band squares of different sizes.
- Record the number of small squares inside your rubber band squares. This procedure may be used to explain area of a surface.

Lastly, it may be necessary to summarise this unit as follows:

- Provide concrete experience during the early stages of learning Mathematics by using a variety of concrete material.
- Take the learners from simple to complex.
- Look for patterns of reasoning or thinking consistently.
- Provide a smooth transition from concrete to abstract concepts.
- Expose a concept or idea to the learners adequately.
- Provide adequate practice before introducing a new concept.
- Keep revising or applying concepts learners have learned.
- Do not move too fast.
- Demand neatness when doing mathematical calculations.
- Differentiate between left handed and right handed. Provide adequate practice in preliminary activities to assist those learners who may be confusing the position of some numbers. For example: for 6, for 9, L for 7, and so on.
- Help learners with language first before carrying out the calculation of word problems to enhance understanding of what learners are expected to do. Language serves a cognitive function in concept formation in the mind, not only in mathematics but also in subjects across the curriculum.

Making a geo board

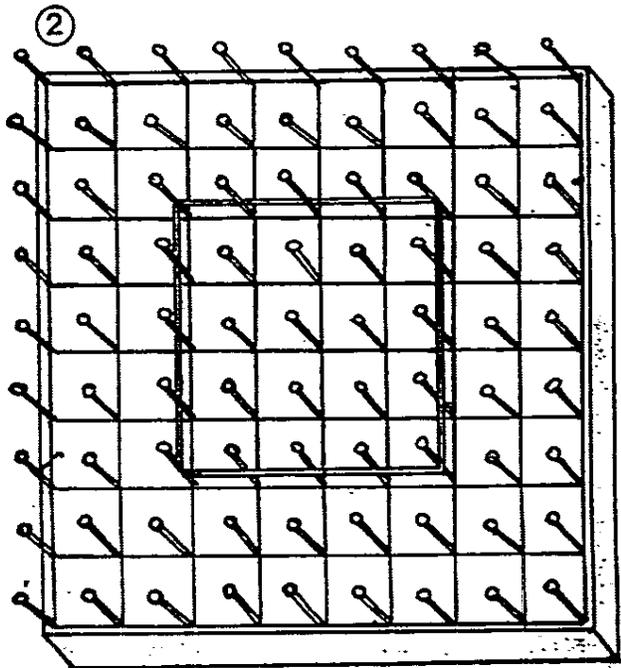
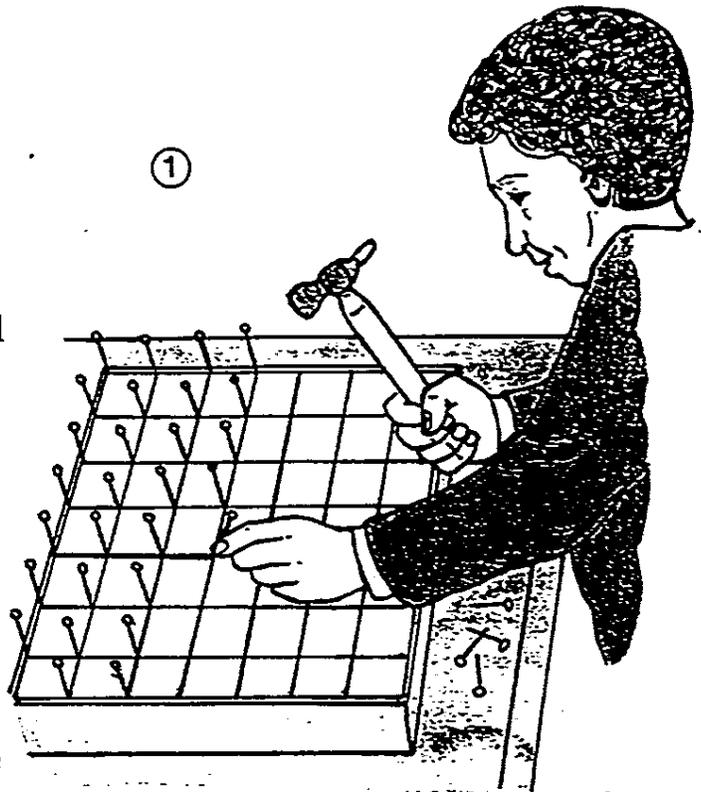
Find a large square piece of thick wood.
 Draw a large square on this piece of wood.
 Tessellate this square to form small squares (see page 8).

Find some small tacks.
 Carefully hammer a tack into the wood wherever two lines cross.
 Be sure that there is a tack at every point where the lines cross.
 Make sure that each tack is vertical.
 (Picture 1)

Try to hammer each tack so that the heads of all the tacks are the same height.

Put thin rubber bands over the tacks to form rubber band squares.
 (Picture 2)

Make rubber band squares of different sizes.
 Record the number of small squares inside your rubber band squares.
 What do you notice?



UNIT 7

TALULAR for Developing Literacy

Introduction

There is no doubt that the most important TALULAR resource in helping children learn how to read and write is the teacher. Literacy development is based on the four constituent skills of listening, speaking, reading and writing. The degree of success achieved will vary as different teachers use different methods with different learners in different conditions at different times. To decide on most relevant approaches in the task of literacy development, these approaches should actually be adapted to specific pupils. This calls for a wide knowledge approaches, TALULAR and books as well as a sound knowledge of children, particularly those experiencing difficulties in learning how to read and write. Also, initial training of the teacher should adequately help the teacher in understanding the various teaching techniques including use of TALULAR to enhance literacy development.

To help learners to prepare for reading a lot of activities are required ranging from preliminary activities to the actual experience with words, reading and writing. Every learner must be completely involved in his or her own literacy, with the teacher starting from a point within that learner's experience and using every available TALULAR to develop language skills further. The teacher needs to collect a fund of as many examples of words as possible to promote effective language learning through a rich collection of TALULAR for creating a stimulating reading environment.

Barking at print, that is reading parrotly or without understanding what is read or written is not good enough. Reading is recognition of written symbols and understanding of the symbols. In order to achieve the goal of helping learners to learn how to read, literacy should be developed systematically. Words are used to exploit a situation or context. The TALULAR will help create more meaningful contexts in which words will make sense to the learners. In addition, the teacher should build up his or her fund of knowledge of which are the most suitable books available and blend these with appropriate TALULAR. The ideas about TALULAR for developing literacy are intended to help fill any gap which may exist in teachers' expertise in terms of helping learners develop literacy skills effectively.

Objectives

By the end of this unit, you will be able to:

- describe TALULAR for literacy development
- make prototype TALULAR
- use some TALULAR for literacy development

Prototype TALULAR for literacy development

Adequate TALULAR enhance use of participatory approaches in language learning. As said earlier, when the conventional commercially produced items are not available, or are in a limited supply, TALULAR becomes your safety valve, that is something with which to overcome the burden. This section highlights a few examples of TALULAR relevant to the development of learners' competence in print and in writing skills.

TALULAR

Illiteracy Enslaves



WHAT DO YOU THINK?

T.A.L.U.L.A.R. means "Teaching And Learning Using Locally Available Resources".

Paul Ndunguru and Andy Byers

TALULAR

Education for Development



FREE YOURSELF FROM MENTAL SLAVERY

ONLY OURSELVES CAN FREE OUR MINDS

WHAT DO YOU THINK?

"Education for Development" is UNICEF's term for those educational experiences which promote 'global citizenship'. Global citizenship becomes possible only when young people have an understanding of issues such as justice; interdependence; peace and conflict; and sustainable development, at home and abroad. Global citizenship requires skills of analysis and of problem-solving, as well as a willingness to use those skills to bring about constructive change".

WHAT SHOULD WE DO NOW?

Activity 1

Working in groups:

- Mention some TALULAR you have used in language teaching and indicate the situation in which you use the TALULAR.
- State why it is important to use the local environment as a source of language teaching TALULAR.

Report your work in a plenary after 20 minutes. Reporting time is 20 minutes.

Feedback

As said earlier, words are used to exploit a context, or situation. The local environment is a very rich source of TALULAR for creating such situations. Some of the TALULAR are used directly such as people, animals, plants and other realia. Also, there are some TALULAR that are modified before use such as models, charts and other displays. Furthermore, a lot of writing exists in the environment such as newspapers, magazines, notices on billboards, posters, and messages on people's clothes as well as writing on buildings. Learners should not be confined to the classroom alone. But exposed to various forms of writing in the school environment. The following are some language development TALULAR:

Fingers associated with the five vowels

There are five vowels in Chichewa/Chinyanja:

a, **e**, **i**, **o**, **u**

First they are introduced on the chalkboard. Secondly, the work is extended to the use of other TALULAR. As a memory guide or aid, associate the five vowels with the five fingers:

- **a** is associated with the thumb
- **e** is associated with the forefinger
- **i** is associated with the middle finger
- **o** is associated with the last but one finger
- **u** is associated with the little finger

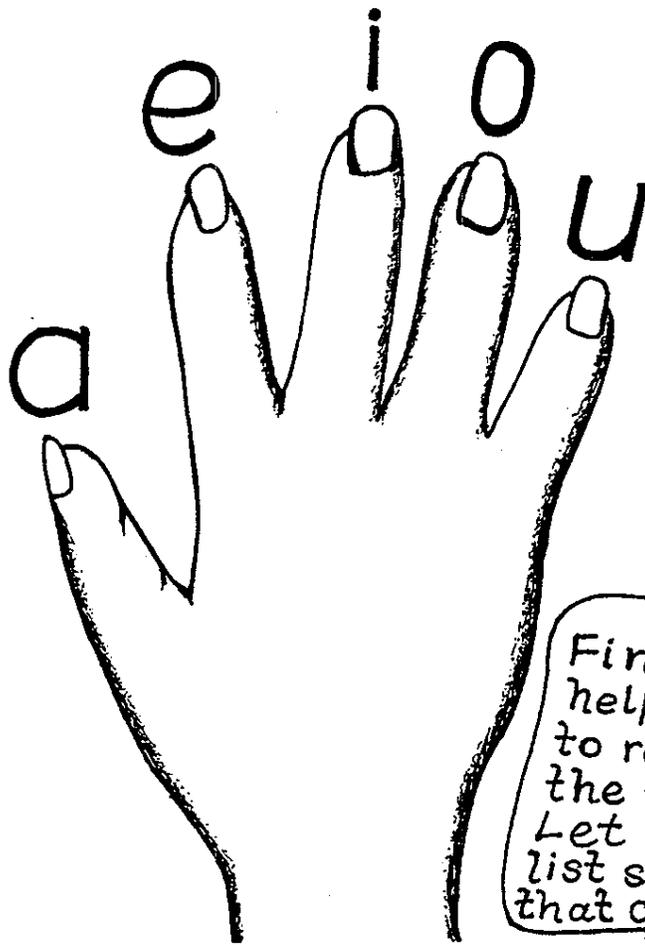
The vowel song

Singing is mnemonic, that is, it enhances memory. Songs are TALULAR included in the non-material resources. Teach the following song:

a, **e**, **i**, **o**, **u** 3 X
a, **e**.

A vowel grid

A vowel grid is a reading chart where vowels are written repeatedly, at random. Learners should identify or recognise the vowels in line with which vowel the teacher wants the learners to recognise. If learners identify the vowels when they are confused on the chart, it is an indication that they are learning how to read.



Fingers help learners to remember the vowels. Let learners list some words that contain them.

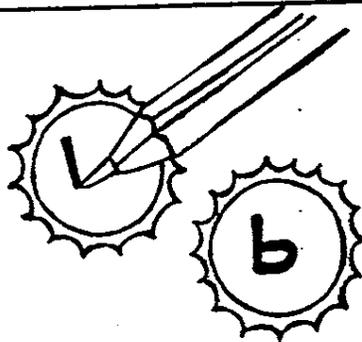
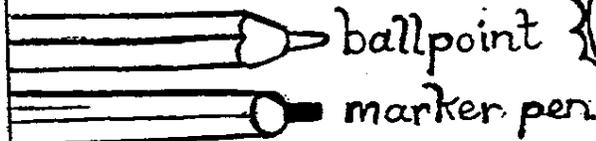


a	e	i	o	u
abale	bere	injini	ona	ulusi
ana	dere	gwiritsa	bongololo	buluku
banja	kachere	chiriri	dololo	chiputu
banga	kachewere	biriwiri	bongo	fulu
chata	chitete	pirira	bondo	fufuta
dala	khwerero	sirira	bonongwe	futuka
khala	mbetete	sisira	botolo	gulu
mbatata	mberewere	mmisiri	mdondo	gulule
matata	njere	sisita	ndondocha	guluka
matalala	masese	sisitika	ndondomeko	munthu
mwala	lide, edere	thirira	sosola	ufumu
mwana	therere	wirira	tolatola	ufulu

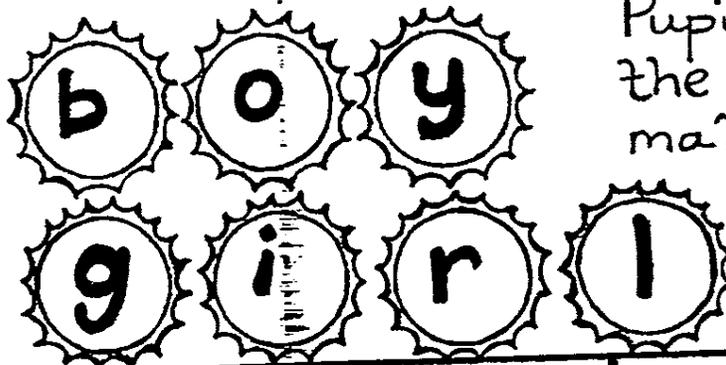
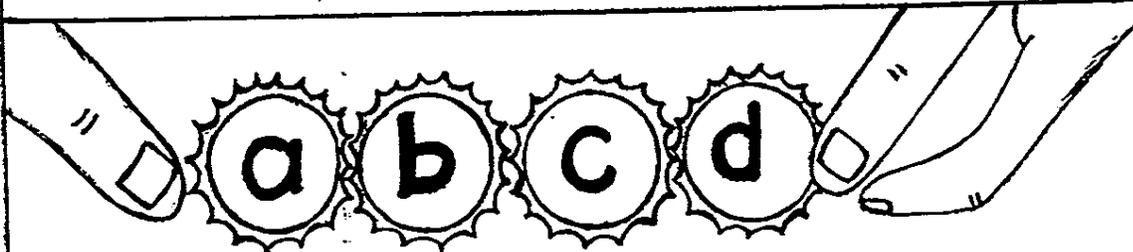
TALULAR

Bottletop ABC

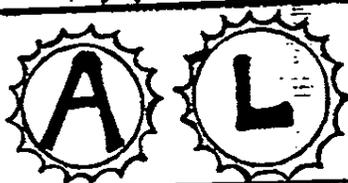
What you will need



Use the ballpoint pen (or marker) to write the letters of the alphabet on the white inside surface of the bottle tops



Pupils can use the letters to make words and play word games.



Introduce capital letters.



How many ways can you store your bottle tops?

Materials

- chart paper or cardboard
- pencils, crayons or coloured chalk
- tablet of soap

Method

- Write the first line of vowels a, e, i, o, u in the normal way or order.
- Write the same vowels in the second line in reverse order beginning with u and ending with a.
- Write the line of vowels a third time beginning with o, and so on.
- Write the vowels on individual cards for use side by side with vowel grid
- Use a tablet of soap to run it over the writing if you write with coloured chalk. The tablet of soap prevents the writing from getting rubbed off.

A vowel game

A vowel game consists of the five and is played to consolidate learners' knowledge of vowels. It is based on recognition of the five vowels. Players use a dice that has letters printed on its sides instead of numbers. All the players start from the same point. A dice is thrown to determine where a player should go in terms of the vowel shown on the dice. The winner of the game is the first person to reach the last vowel in the home, the finish.

Materials

- chart paper or cardboard
- pencils, crayons or pens
- piece of wood
- buttons, stones, seeds
- ruler
- scissors, knife or razor blades

Method

- Draw some squares on the chart or cardboard
- Label the first square at the bottom: **START**.
- Label another square at the end of the racing track: or
- Make a dice like the one you made for snakes and ladders.
- Instead of printing dots, numbers or making holes in the dice, the five vowels are written on the corresponding sides. A spinner is also used instead of a dice. A spinner has the vowels written along its edge.
- Use buttons, seeds, or stones as players.
- Write the vowels in the boxes on the chart next to **START** in the order they are usually read, starting with **a** until you reach the final box.
- You can also use a fertilizer bag to make the vowel game. You can write with markers or paint and brushes if these are available.
- Paste a pocket or envelope on the back of the chart for keeping the dice and the players.
- Make several charts with the vowel game to increase the chances for more groups to play the game.

A syllable grid (Chichewa/Chinyanja maphatikizo)

In Chichewa/Chinyanja consonants have no sound of their own and do not stand alone without the five vowels. Having dealt with the five vowels, learners are moved on to this area of syllable formation by combining the vowels and the consonants. At the syllable level, the order of teaching is to begin with the diagraphs, that is, a single consonant and a single vowel:

b + **a** = **ba** then two consonants and a vowel, three consonants and a vowel, and so on.

It is the vowels that combine with the consonants that give sound to the consonants. Consonant and vowel combination (maphatikizo) should be taught thoroughly because this area leads into word formation, which is the combination of syllables:

- ba + mbo = bambo (father)
- nyu + mba = nyumba (house)
- mo + to = moto (fire)
- kha + su = khasu (hoe)
- nkha + nga = nkhangwa (guinea fowl)

Materials

- chart paper or cardboard
- pencils, crayons or pens
- scissors, knife, or razor blades
- match boxes
- porridge
- reed
- string

Method

- Draw lines to make 8 cm squares on the chart paper or cardboard.
- Write the syllables in the boxes from **ba** to **zu**.
- Vary the consonant combinations ranging from single consonants to multiple consonant combinations.
- Take another chart and cut it into pieces of cards, the same size as the boxes on the syllable grid.
- Write the syllables on the cards as those on the syllable grid. The cards are used in a matching activity whereby learners put cards over the boxes that have the same syllables as the cards.
- Fetch some matchboxes.
- Paste a card over the outer cover and another card over the back of the inner box that contains matchsticks.
- Write one syllable on the outer cover and another syllable inside. Once pupils master reading the syllables, learners engage in word formation; the matchboxes become necessary. Pull out the box inside the matchbox and match the syllable with the one outside it. For example, you could have **mbu** outside the matchbox, then **zi** inside, the resulting word is **mbuzi** (goat).
- Tie a string for hanging along the top edge of the chart.

A SYLLABLE GRID

ba	be	bi	bo	bu	bi	bo	ba	bube	mba	mbembi
da	de	di	do	du	de	da	di	du	do	mbombucha
fa	fe	fi	fo	fu	fi	fe	fo	fa	fu	chechi
ga	ge	gi	go	gu	ge	gi	gu	go	ga	chunda
ha	he	hi	ho	hu	hi	ho	ha	hu	he	ndi
ja	je	ji	jo	ju	ja	ji	jo	je	ju	ndo
ka	ke	ki	ko	ku	ki	ka	ku	ko	ke	ndu
la	le	li	lo	lu	le	li	la	lu	lo	mfa
ma	me	mi	mo	mu	ma	mo	mi	me	mu	mfe
na	ne	ni	no	nu	na	ne	ni	no	nu	mfi
pa	pe	pi	po	pu	pe	pi	po	pu	pa	mfa
ra	re	ri	ro	ru	re	ri	ro	ru	ra	mfe
sa	se	si	so	su	sa	se	so	si	su	mfi
ta	te	ti	to	tu	te	ti	to	tu	ta	mfa
va	ve	vi	vo	vu	ve	vi	vo	vu	va	mfe
wa	we	wi	wo	wu	we	wi	wo	wu	wa	mfi
ya	ye	yi	yo	yu	ye	yi	yo	yu	ya	mfa
za	ze	zi	zo	zu	ze	zi	zo	zu	za	mfe
nsu	mta	mte	mti	mto	mtu	nsa	nse	nsi	nso	nsu
mvi	mvo	mvu	mwa	mwe	mwi	nya	nye	nyi	nyo	nyu
tsi	tso	tsu	mza	mze	mzi	mzo	mzu	nza	nze	nzi
										nzo
										nzu

A syllable grid can be a big one or a small one based on individual letter consonants to be highlighted. 134

The English alphabet grid

Reading in English begins with sounding the letters of the alphabet. Later, the letters are used to form words and then sentences. Sometimes the letters are accompanied by pictures whose names contain the letters of the alphabet concerned. The alphabet grid is a chart where all the letters of the alphabet are written. These are normally introduced on the chalkboard. Later the letters are associated with other TALLULAR such as letter blocks (made from clay), cards, bottles, boxes, and alphabet books.

Materials

- chart paper or cardboard
- pencils, crayons, pens or paint and paint brushes
- scissors, knife or razor blade

Method

- Draw lines on the chart or cardboard to make some 6 cm squares.
- Write the letters of the alphabet in the squares.
- Prepare two alphabet grids, one with lower case (small) letters and the other one with upper case (capital) letters.
- Write the letters in a jumbled order to prevent learners from simply memorizing the order if it has a fixed pattern.
- Make squares on another chart, the same size as the other squares and cut the squares into cards.
- Write the letters of the alphabet on the cards for matching with the letters on the alphabet grid.

The alphabet chain

The alphabet chain is a collection of alphabet cards. The letters are in the same case and hang on a line or string. The learners practise recognition of the letters of the alphabet as well as mastering the order of the letters in the alphabet.

Materials

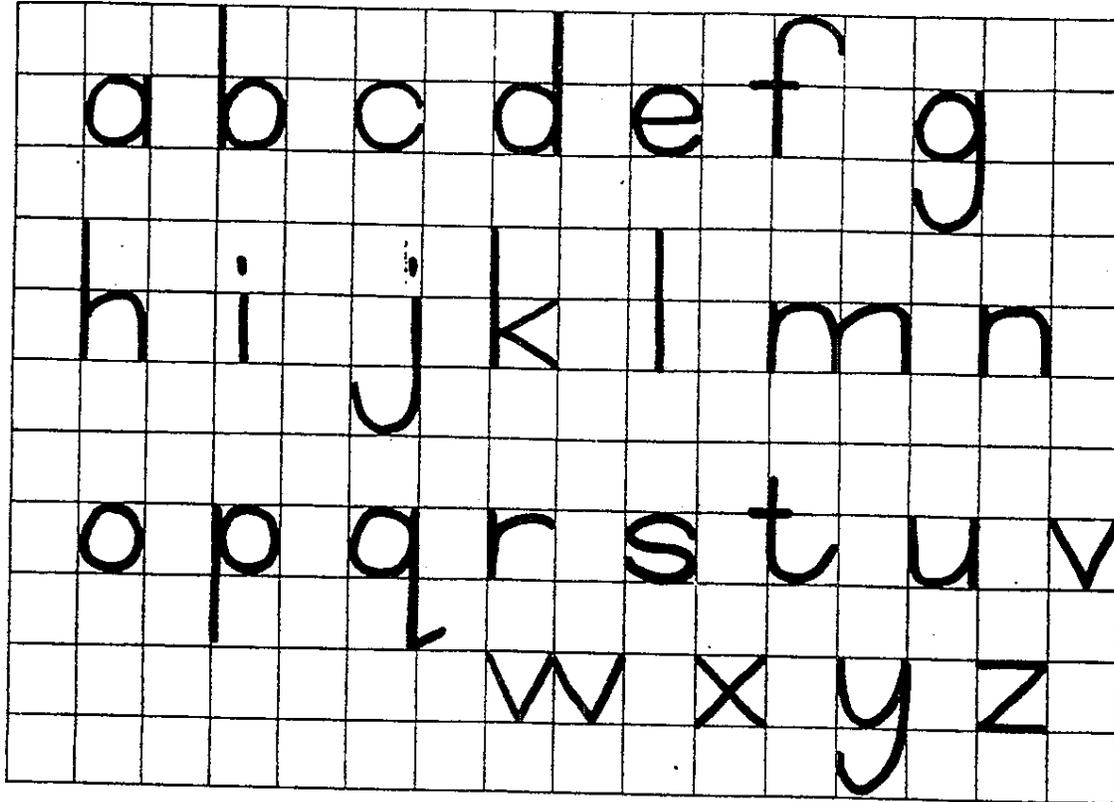
- cardboard
- bamboo sheaths
- charcoal
- thin maize porridge
- pencils, crayons or pens
- string or wire

Method

- Cut cardboard 10 cm square.
- Write letters of the alphabet on the card.
- Make two punch holes along the top part of each card.
- Insert a string into the holes of each card. Wire can be used instead of a string.
- Tie one end of the string to a nail or pole and then the other end, which displays the cards, ready for learners to use.
- Mix charcoal with thin maize porridge to make black paint which you can write the letters of the alphabet with.

TALULAR

Printing small letters using squared paper

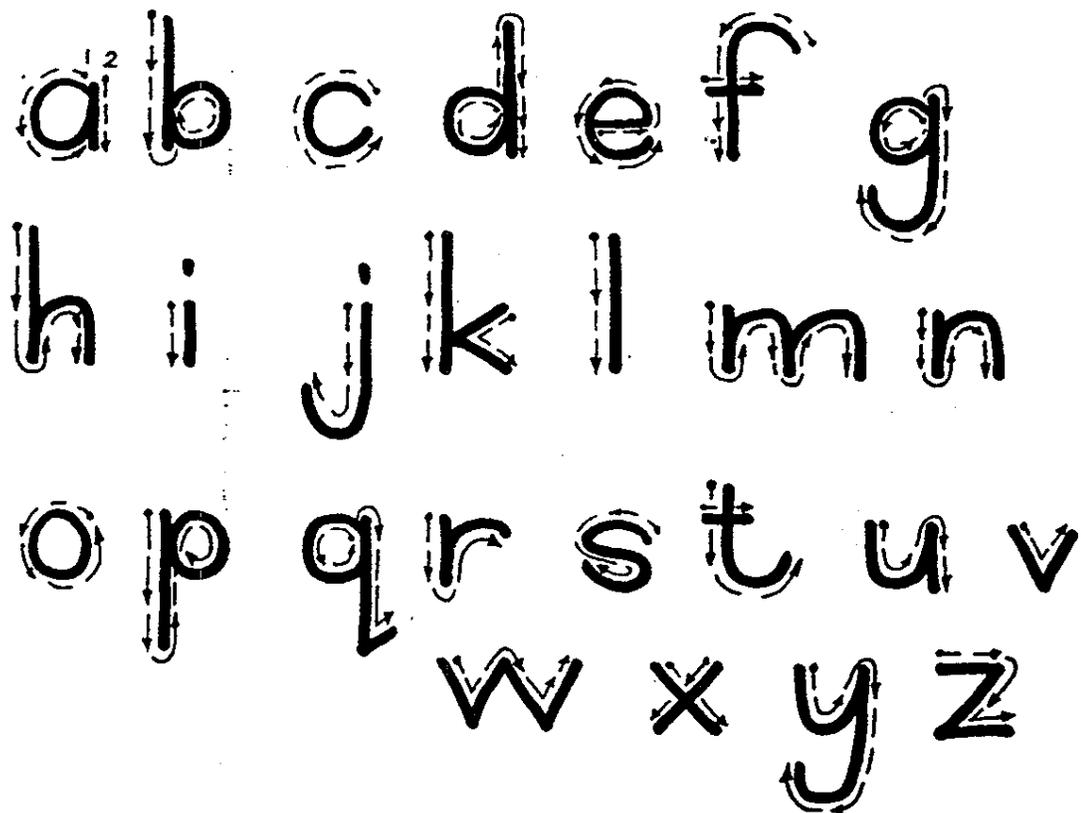


T.A.L.U.L.A.R. means "Teaching And Learning Using Locally Available Resources".

Andy Byers and Gibson Zembeni

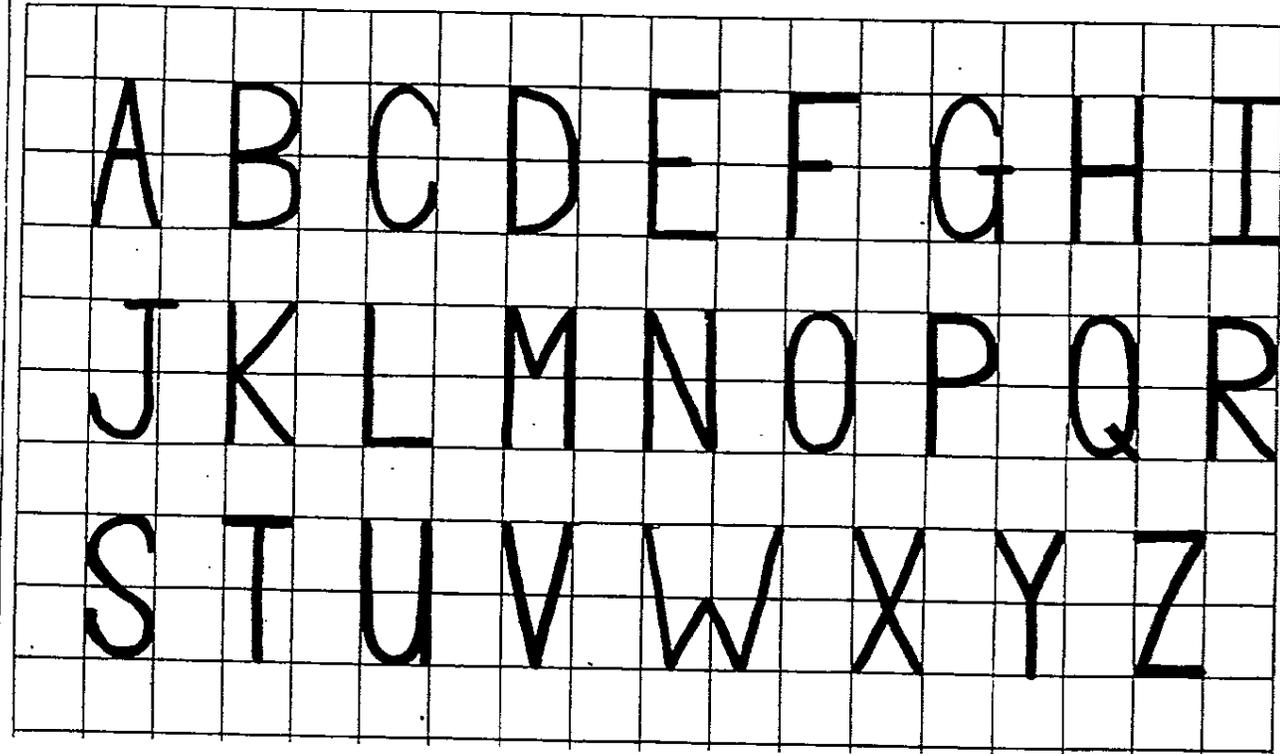
TALULAR

Printing small letters



TALULAR

Printing capital letters using squared paper

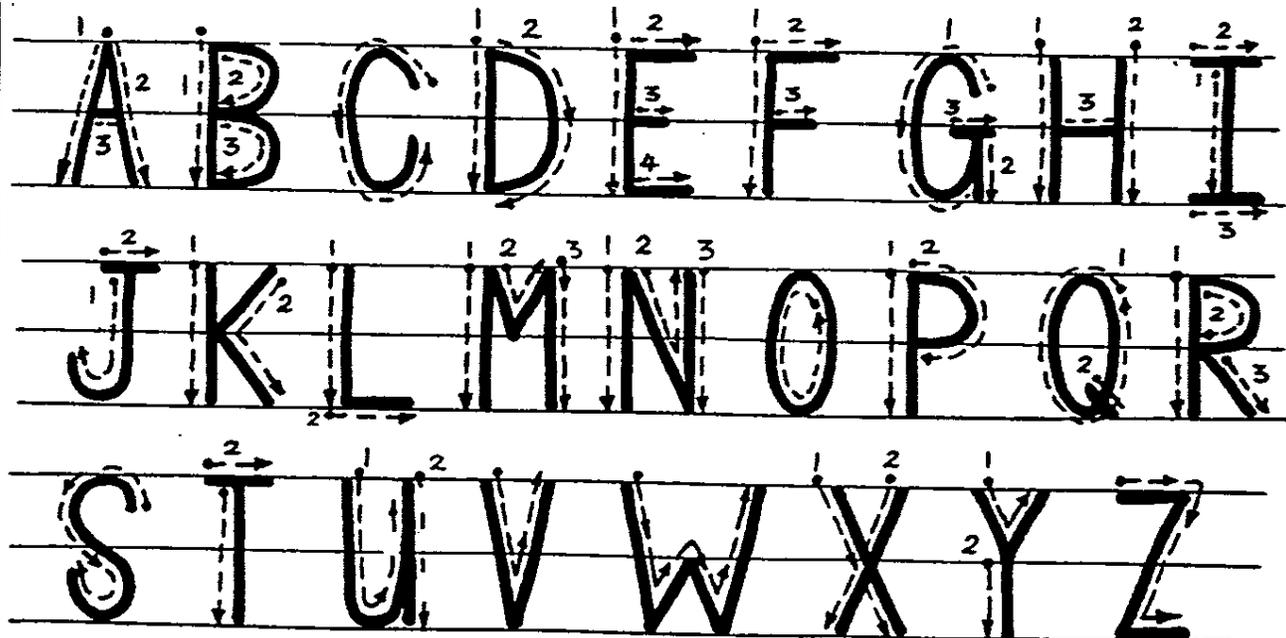


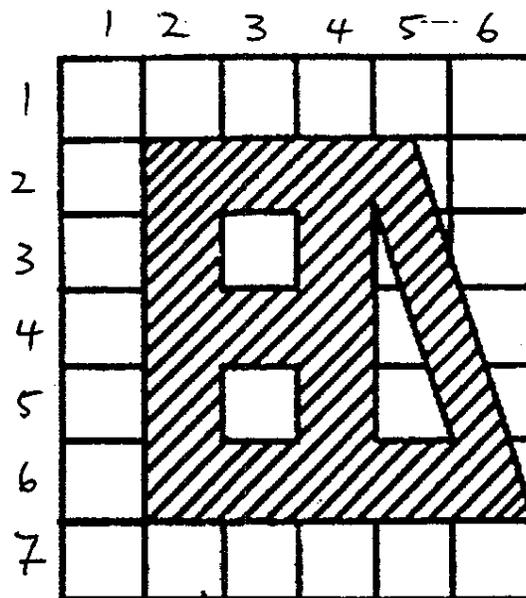
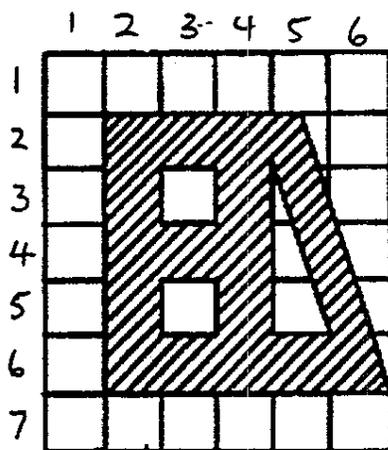
T.A.L.U.L.A.R. means "Teaching And Learning Using Locally Available Resources".

Andy Byers and Gibson Zembezi

TALULAR

Printing capital letters





Enlargements

How to make grid enlargements

A small picture can be enlarged, for example to make a flashcard large enough to be used as a poster, using the following method:

- 1 **Either:** trace (see page 118) the picture you want to enlarge onto squared graph paper, or make your own grid. Do this by ruling evenly-spaced vertical and horizontal lines with a pencil across a piece of drawing paper and noting how many lines you needed to draw.
- 2 Number the grid 1,2,3 and so on, along both the vertical and horizontal axes.

Alternatively, fold the paper in even spaced lines (vertically and horizontally) remembering the number of times you folded the paper.
- 3 Now make a larger grid with the same number of evenly-spaced squares as the first grid. The squares in this grid will be larger.
- 4 With a pencil, make dots in the squares of the large grid which correspond to the key lines of your original picture in the smaller grid. This gives you the correct proportions for the enlarged figure.
- 5 Join the dots to produce the enlarged picture.



Make your
own letter
stencils

Letter stencils

A letter stencil is useful to ensure that you use neat, even-shaped letters. Ready-made stencils are easily available. You can also make your own, following the instructions below.

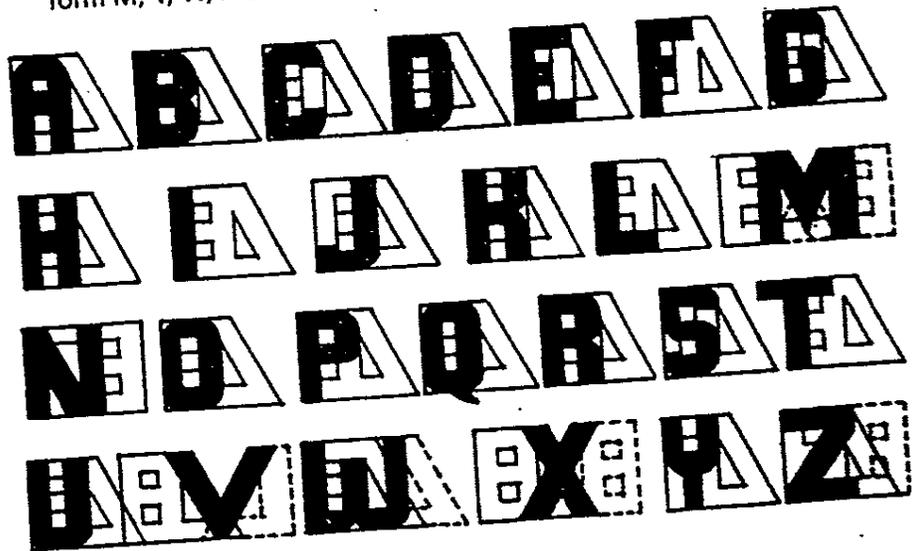
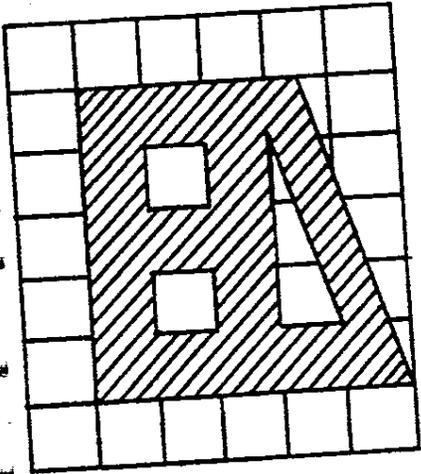
You will need

- ▶ strong card, cardboard or lino
- ▶ scissors and/or a sharp knife
- ▶ a pencil

What you need to do

For upper case letters, you can make one stencil to produce every letter of the alphabet.

- 1 Draw the grid on the left on card and cut out the shaded shape.
- Make sure that the letters will be the size that you want.
- 2 Use the diagram below as a guide to form each capital letter you need from the stencil. You will need to turn the stencil over to form M, V, W, X and Z.



- Try to write letters of the alphabet on the bamboo sheaths with the paint you have made with charcoal and maize porridge.
- Punch two holes at the top end of each bamboo sheath.
- Insert a string into the holes and hang for the learners to use for practice. Wire is equally as good for displaying the alphabet cards.
- Always refer to the alphabet chain when dealing with the letters of the alphabet in the classroom for the learners to recognize its validity.

A vocabulary chart with pictures or without pictures

A vocabulary chart has a variety of words written on it for reading practice. It may consist of fewer or more words. Normally, the smaller vocabulary charts or cards contain related words by sound or spelling features in order to enhance learning by association. For example:

Chichewa

dzanja (arm)
dzana (the day before yesterday)
dzala (full/ground for disposing waste)

tsatsa (stick for beating/advertise)
tsaya (cheek)
tsala (stay behind/land left fallow)

English

back	chalk	rough	delight
sack	walk	bough	light
black	talk	although	fight
lack	stalk	cough	tight

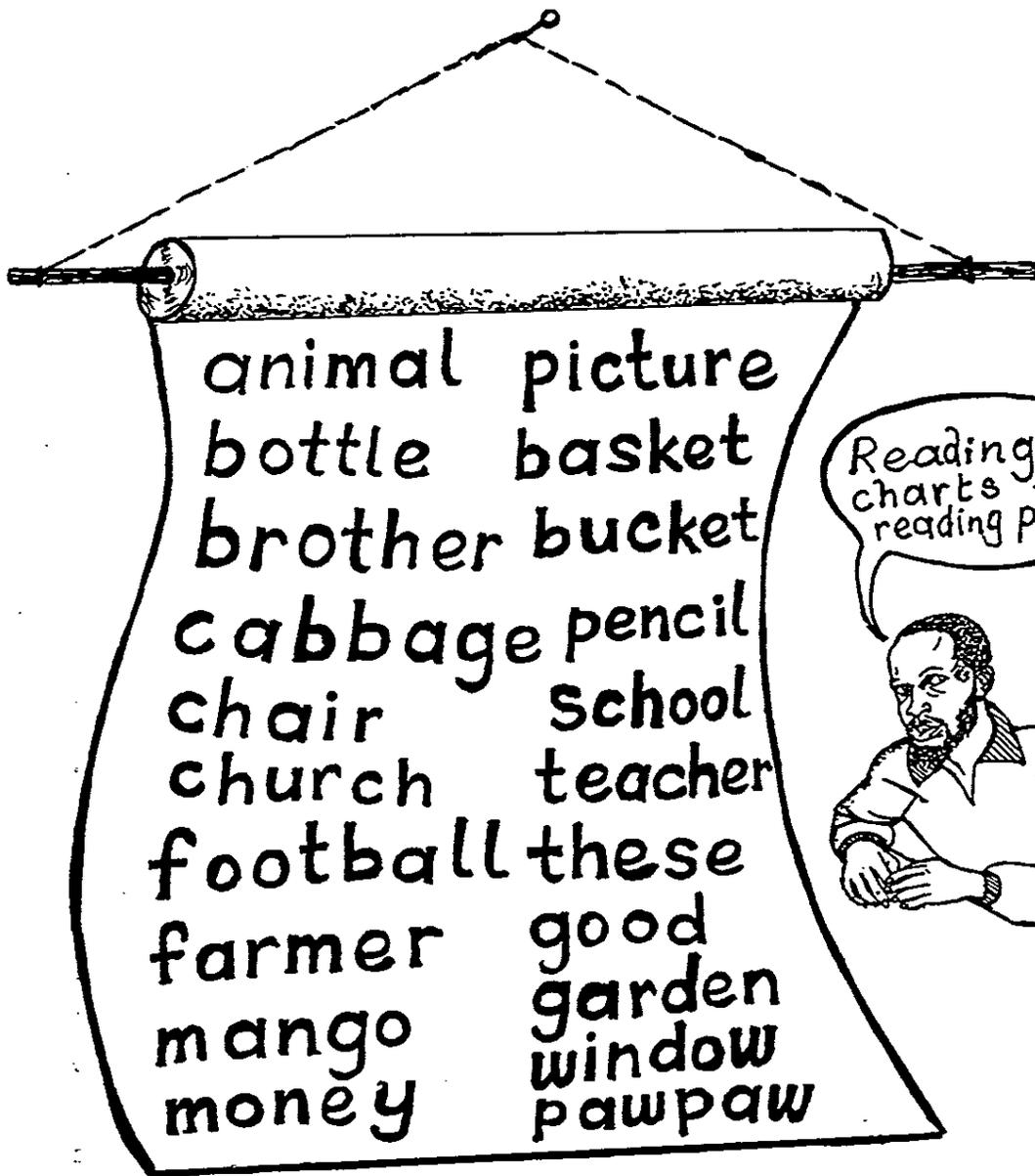
Sometimes instead of matching words with pictures on the chart, real objects replace the pictures, that is, learners must identify names of the object the teacher shows them. It is also possible to have a vocabulary chart with unrelated words for purposes of challenging the learners as they become more and more proficient in reading.

Materials

- chart paper or cardboard
- pencils, crayons or pens
- newspaper cutouts in a form of pictures
- maize porridge

Method

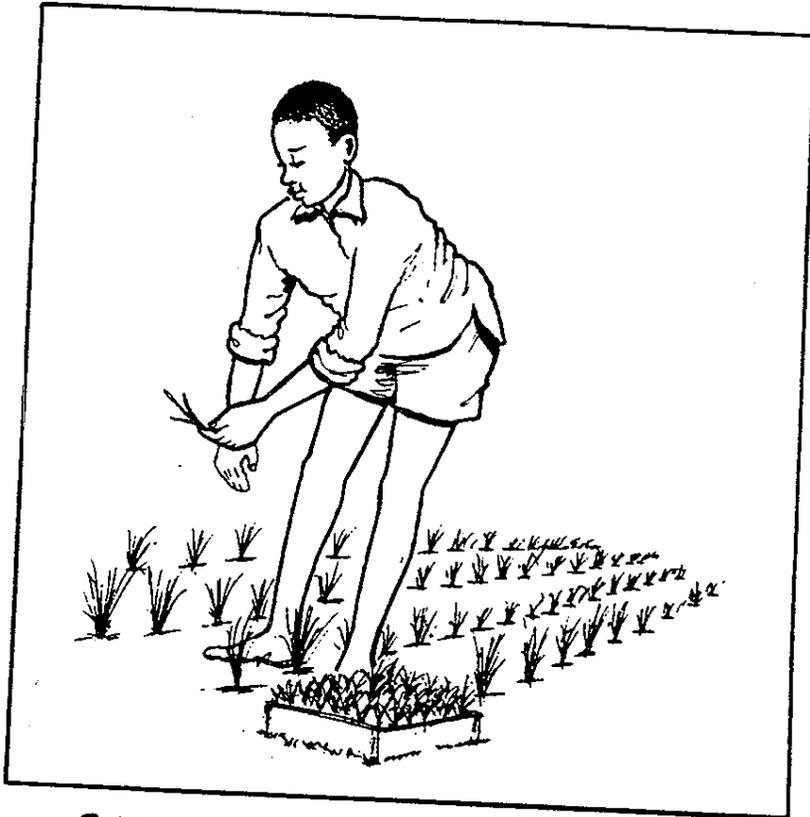
- Select and write the words on the chart or cardboard.
- Cut another chart into strips or cards. Write the same words as on the vocabulary chart for matching activities.
- Draw or paste pictures on the chart, that correspond to the vocabulary.
- Display the chart on the wall for reference or use during teaching.
- Sometimes it is possible to cut out vocabulary items apart from pictures from newspapers and magazines, especially captions or short titles for composition writing.



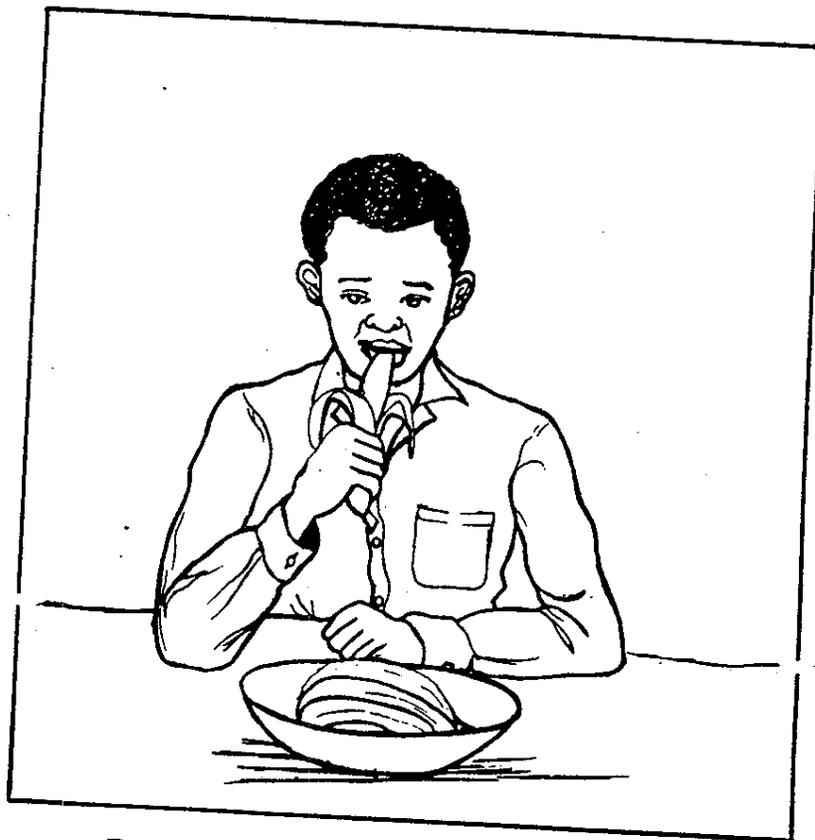
Reading charts for reading practice



Gibson is playing with some girls.



Chisomo is planting rice seedlings.



Blessings is eating a banana.

A word and sentence maker

A word and sentence maker is a board with pockets where learners make words with letter cards, or words are combined to make sentences. When the teacher calls out a word, learners pick out appropriate cards and arrange them in the pockets of the word and sentence maker. Similarly, when the teacher reads out a sentence, learners find appropriate cards that bear the words of the sentence and arrange the word cards to make the sentence in the pockets.

Materials

- chart paper, cardboard or an old calendar
- pencils, crayons, or pens
- glue or porridge
- pair of scissors, knife or razor blade
- an envelope

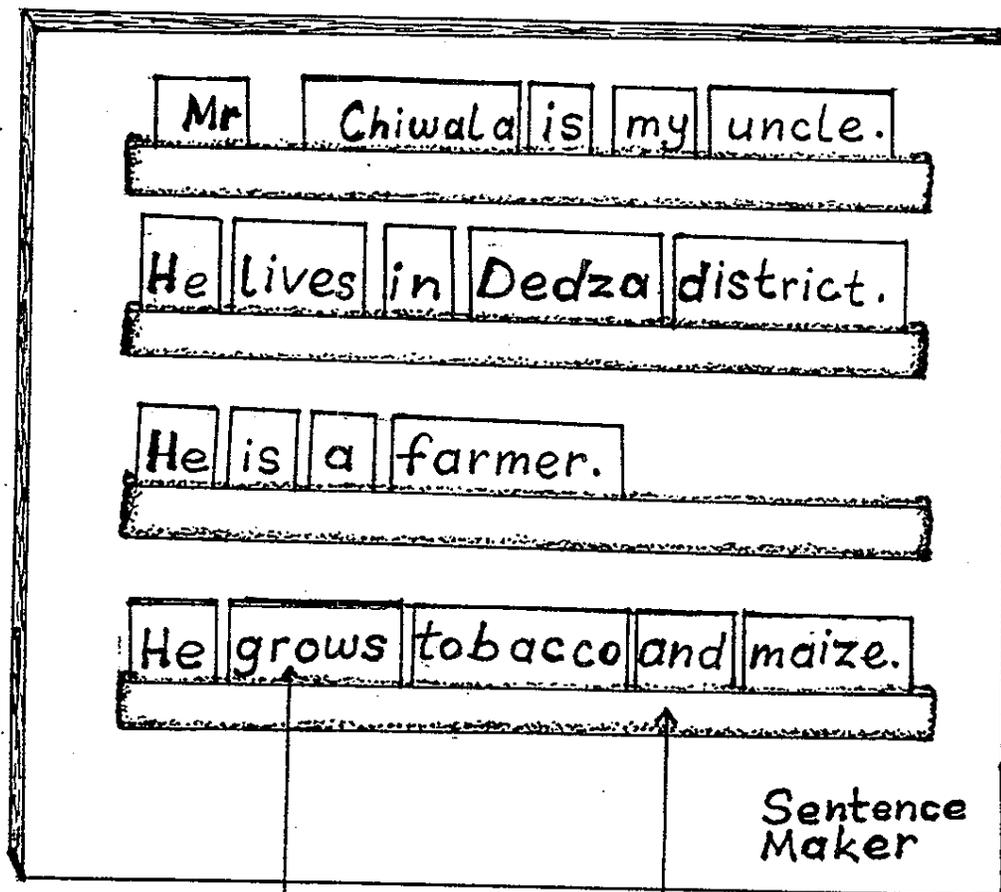
Method

- Cut a piece of cardboard 80 cm by 50 cm or a piece of an old calendar, 60 cm by 40 cm.
- Cut strips of paper the same width as the board. Short strips may be pasted together to make the required length.
- Fold along one length of the strip and apply some porridge on the outer part of the folded area.
- Stick the area smeared with porridge to the board across its width and press over the entire strip.
- Close the ends of the strip with some porridge to make a pocket.
- Do the same with other strips.
- Space the pockets in such a way that the letter cards or word cards do not obstruct each other when put into the pockets for reading practice.
- Cut the chart paper or old calendar into letter cards and word cards. There should be several cards written with the same letters. The word cards are usually related to a story and learners practise building up a story.
- Paste an envelope on the back of the word and sentence maker for keeping the letter cards and the word cards.
- Make several word and sentence makers to conduct competitions on word and sentence formation or construction.

Surf boxes and similar containers have a surface for word formation practice. Letters of the alphabet are written inside bottle-tops. When the teacher calls out a word, learners find appropriate bottle-tops and arrange them to form the word.

A word board

This is a board that consists of a piece of wood or plank, nails and letter cards with holes for hanging on the nails of the board. Learners form words the teacher calls out on the board. Also, learners practise making sentences with the words they form on the word board. The teacher assesses pupils' ability to recognize words to develop reading skills. The word board is sometimes called a sentence board because it is also used for sentence building.

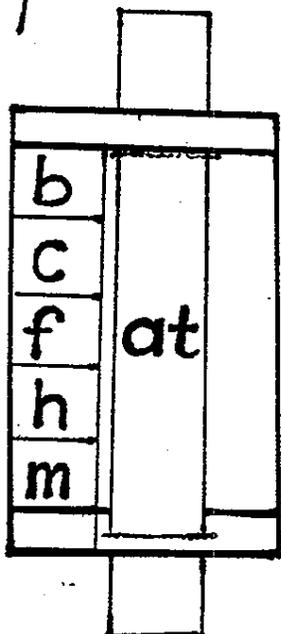


Vocabulary card

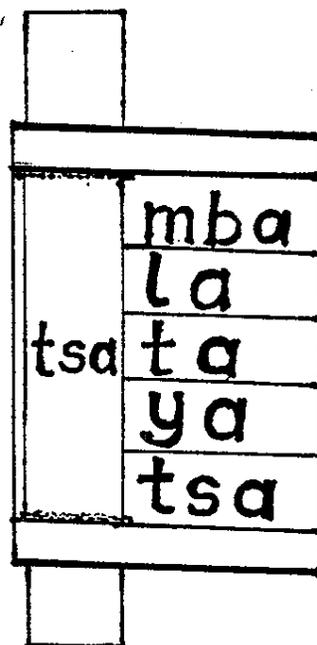
pocket



The pockets may be made on a sack or a cardboard box



Phonic drill cards

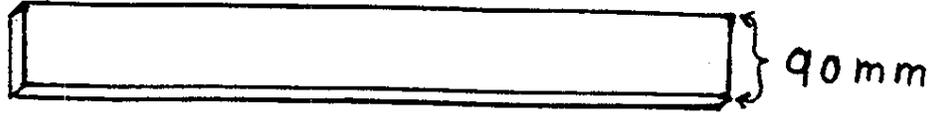


Make your own phonic drill charts for Chichewa and English (Chinyanja)

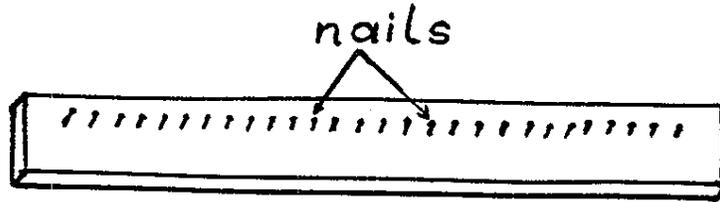
THE WORD BOARD

← one metre →

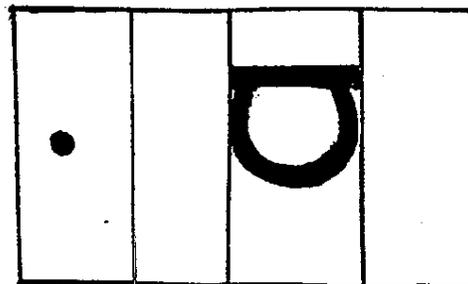
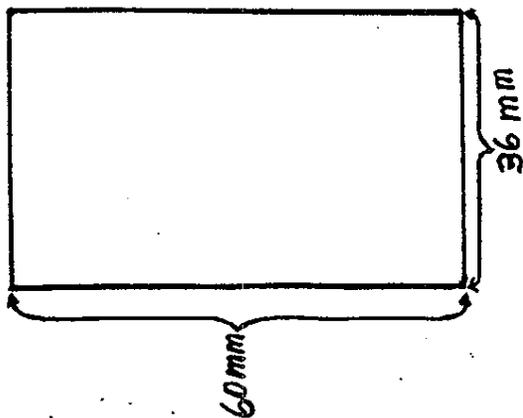
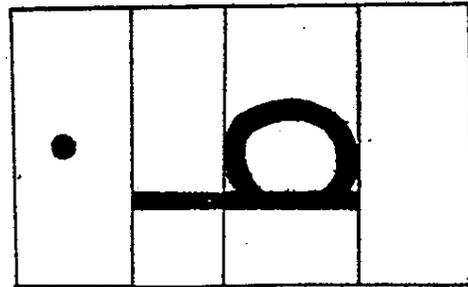
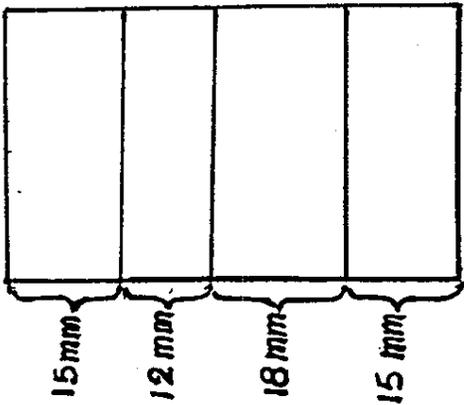
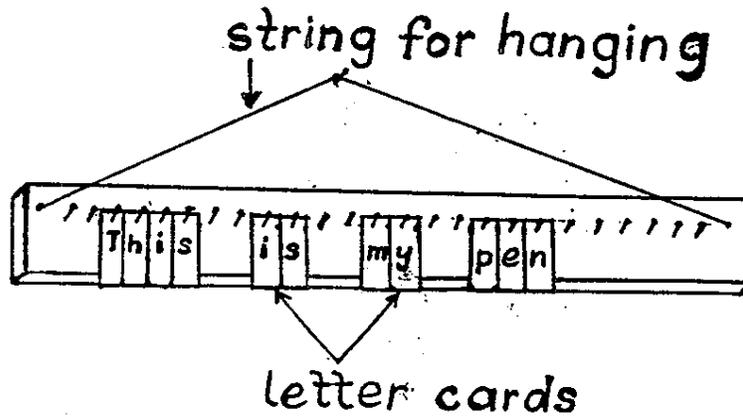
(a)



(b)



(c)



LETTER CARDS

Materials

- planks
- nails
- paper
- ruler
- pencils, crayons or pens
- pair of scissors, knife or razor blade
- punching machine
- paint and brushes

Method

- Cut a plank into pieces one metre or half a metre long, and 60 mm or 90 mm wide.
- Fix nails 2.5 or 5 cm long, along the top edge of each board.
- Fix the nails at intervals equal to the width of each letter card.
- Cut pieces of paper into cards 60 mm by 36 mm.
- Divide the length of each card into four parts. The top part should be 15 mm wide for punching purposes. The second part should be 12 mm wide. The third division should be 18 mm wide and the fourth division should be 15 mm wide.
- Write letters of the alphabet on the second, third and fourth divisions for each card.
- Make sure you have written each letter several times to increase the number of one letter for conducting competitions on word and sentence construction.
- Make the holes in the cards wider than the heads of the nails.
- Paint the boards black or blue to create a good background for the letter cards to stand out.

The **bao board** is also used for word and sentence formation. Letter cards or bottle-tops with letters written inside them, are arranged in the hollow parts of the bao board. Several words or sentences can be formed on the same bao board. You may also use fruit and egg trays in the same way.

A reading clock

A reading clock is a chart that has the shape of a clock. Reading words are indicated by means of a pointer that resembles the hand of a clock. The pointer is moved either clockwise or anticlockwise pointing to words learners should read. The reading clock is also known as a reading wheel.

Materials

- chart paper or cardboard
- pencils, crayons or pens
- reed or bamboo
- pair of scissors, knife or razor blades
- thread or string
- glue or porridge

Method

- Draw two circles, one 8 cm radius and another one outside the first, 30 cm radius.
- Join the two circles with straight lines in such a way that you can write words between the lines.

THE BAO BOARD
OR THE FRUIT TRAY
CAN BE USED FOR
NUMERACY AND
LITERACY
DEVELOPMENT.



WORD FORMATION

WORD RECOGNITION

NUMBER PLACE VALUE

NUMBER RECOGNITION

THE FOUR PROCESSES
IN MATHEMATICS

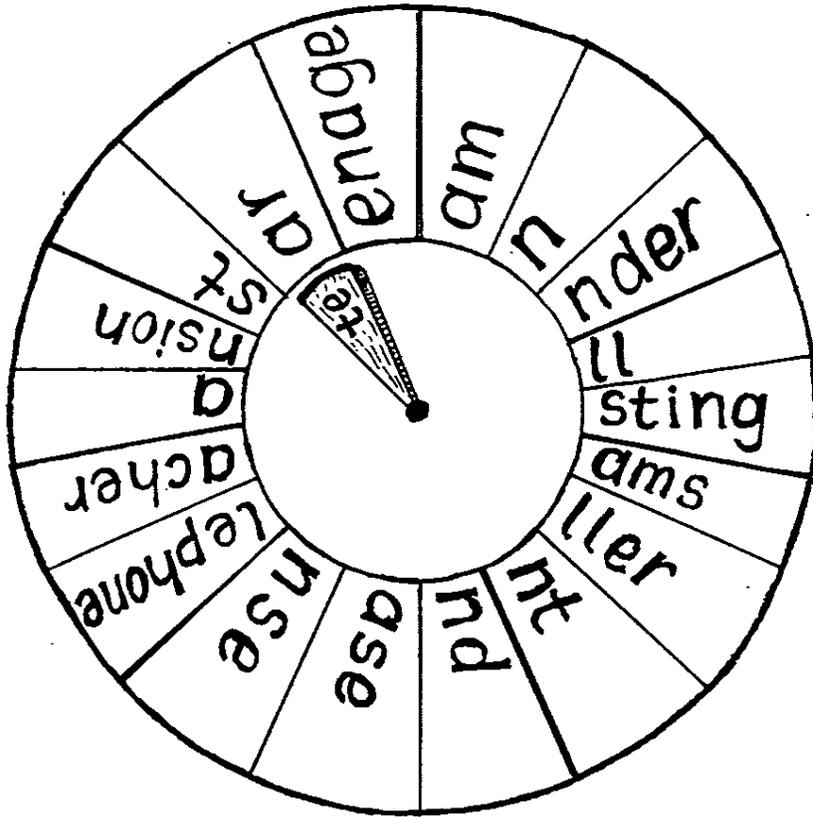
NOUN
PLURALS

VERB
TENSES

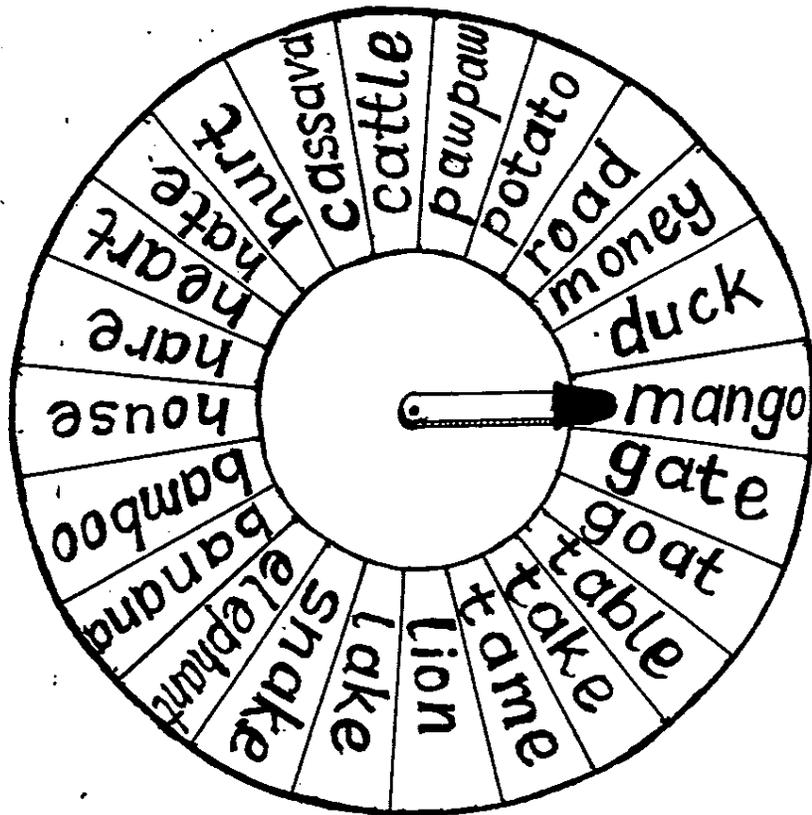
THE BINGO
GAME!

THE BINGO
GAME!

 **HOUSE**
BOTTLETOPS LETTER CARDS



READING CLOCKS



- Make a pointer like the hand of a clock by tying one end of a piece of reed or bamboo with the thread or string.
- Make a hole through the centre of the inner circle.
- Insert the thread or string into the hole and tie a knot on the back of the reading clock so that the pointer can move freely around without being detached from the surface of the reading clock.
- Paste the reading clock to a piece of cardboard to support it.
- Tie a string for hanging on the wall.

A reading text or passage

This is a chart with a passage for reading or poems copied from other textbooks to create supplementary and complementary readers. It is argued that one textbook for the whole year is inadequate. All the language work learners ought to know cannot come from a single book. Some passages and poems can be composed by the teacher and later bound into booklets. To compose a poem, write sentences on strips of paper each based on the theme you have selected for the poem. Arrange the strips of paper into a logical sequence to form a coherent set of ideas.

Materials

- chart paper or cardboard
- pencils, crayons or pens
- scissors, knife or razor blade

Method

- Write your selected passage or poem on charts or chalkboard. Several passages ensure variety during reading activities.
- Take another chart and cut it into strips.
- Write some words from the passage or poem on the strips of paper.
- Write some sentences from the passage or poem.
- Paste pictures cut out from newspapers or magazines to go with the text. Pictures may be drawn.
- Ensure that writing is neat and legible on the chart.

Normally, it is expected that the passages contain vocabulary that suits the level of the learners. There is need to simplify the vocabulary especially if the passages are adopted from other texts. In other words difficult passages should be adapted to the level of the class. A few examples of reading texts are given below:

Method

- Cut a piece of cardboard into a 30 cm square.
- Cut the sheet of paper into cards each measuring 5 cm square or a little bigger than this.
- Write numbers 1 to 31 for dates.
- Write names of the days of the week.
- Write names of the months of the year.
- Write the year in which the cards will be used.
- Write words describing weather conditions such as sunny, windy, cold, hot and cloudy.
- Make pockets on the front surface of the cardboard.
- Make an envelope or pocket and paste it on the back of the cardboard for keeping some cards.
- Make illustrations to match with the words which describe the weather, if necessary.
- You may colour or decorate the surface.

A cinema box/television/diorama/concertina

A cinema box is a carton which consists a long strip of paper with a series of pictures rolled inside the carton or box and fitted with sticks for moving the pictures backwards and forward. The long strip of paper is the film and the sticks are used as rollers. The cinema box is also known as a diorama, a television set or a concertina. This is very useful in developing literacy with stories. During story telling learners are highly motivated as they listen and watch the pictures that depict various scenes of the story. An alternative to the cinema box is the reading window. This is a box in which a long strip of paper like the one described above has a series of reading words instead of pictures. The teacher shows one section of the reading window while the parts that are not involved yet are hidden. Once the section that is shown is read, the teacher moves the strip and a new section appears, and so on.

Materials

- carton
- pencils, crayons or pens
- thumbtucks
- porridge
- sticks
- a pair of scissors, knife, razor blade

Method

- Make a talular screen by means of a carton or use planks to make a wooden box with nails.
- Draw pictures on paper strips in the order of the scenes of the story to be told. The pictures may be coloured to make them more attractive.
- Join the strips of paper with porridge to make a continuous piece. This is the film for your talular television.
- Fit a stick at either end of the film by pasting the ends of the film to the sticks. Thumbtucks or soft board pins may be used to hold the ends of the film to the sticks. Sometimes the ends may simply be tied to the sticks with a string.
- Make four holes in the box, two at the roof of the box, and two at the bottom part of the box.
- Roll the long strip of paper (film) in place and fit the top ends of the sticks into the two holes at the roof of the box and the lower ends of the sticks into the bottom holes.
- Roll the film backwards, and forwards to check how it works.
- Make several films for use in the same talular screen. All you do is to remove the sticks of the film inside the box and fit sticks of a different film into the box.

1 A bus driver, a goat, a cow and a dog

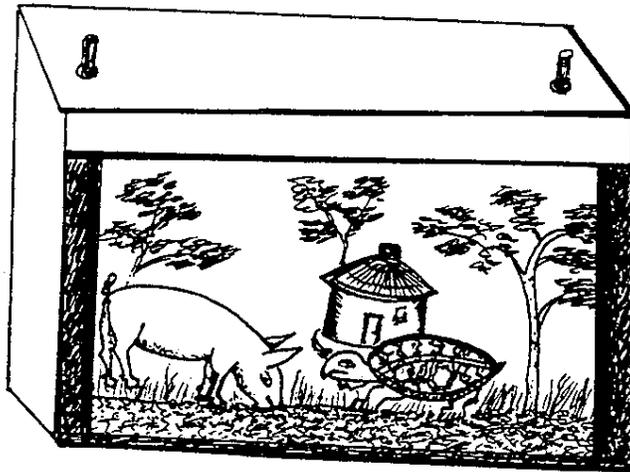
Once upon a time, a goat, a cow and a dog lived in the same village. Their village was called Chakudza. It was a big village.

One day, the three animals went to Mayani Market to buy some food. The market was five kilometres away from Chakudza village. The animals went to the market in the morning. In the afternoon they decided to go back home. "How tiring it is travelling back home," the goat said. "How I wish someone with a car gave us a lift," the cow said. "But, has everyone enough money? We will board a bus," the dog suggested.

While the three animals were discussing the idea of boarding a bus, a bus driver found them. They requested the driver to pick them up. The bus was heading towards Chakudza village. When the driver stopped the bus at the stage close to Chakudza village, the goat jumped off the bus and ran away without paying anything. The cow paid all the money the bus driver had demanded. The dog gave the driver more money than the bus fare and expected the driver to give him some change. Unfortunately, the driver simply drove off without giving the change back to the dog. The dog tried to run after the bus, shouting, "My change, my change, my change", the bus was too fast for him to reach it. This has created hatred between the driver and the dog.

When the driver drives close to the goat, she runs away to avoid being reminded of the money she did not pay for the fare. The cow does not run away because she says, "I do not owe you anything. I paid the fare." The dog always runs after the driver and shouts, "My change, my change, my change."

Why the pig digs its nose into the ground



2. Why the pig digs its nose into the ground

Once upon a time, the pig and the tortoise were great friends. This friendship came to an end when the tortoise borrowed a large sum of money from the pig and did not want to pay it back. The tortoise had a daughter. She loved her very much.

One day, the tortoise told her daughter what she should do if the pig came to ask for his money. The tortoise told her daughter to turn her upside down and grind tobacco leaves with a stone on her stomach. While lying on her back, she would look like a grinding stone, "Tell the pig I have gone a long way and I won't be back until late, so the pig need not wait for me," the tortoise said to her daughter.

The pig came to the tortoise's house to ask for his money. The daughter turned her mother upside down, took some tobacco leaves and began to grind them on her mother's stomach as advised by her mother. "Where's your mother?" the pig asked the daughter. "Sorry, mother has gone on a long way and won't be back until late, so you need not wait for her," said the daughter.

On the following day, the pig came again to ask for the money. The daughter did as before and the pig went back to his house. He came every day to ask for his money and he got the same story as before. One day, the pig became so angry that he picked up the grinding stone and threw it into the bush.

The mother tortoise, who suddenly found herself in the bush, decided to go back to her house pretending she was coming from a long journey. On arrival at her house, she greeted the pig and asked for a sniff of tobacco from her daughter. The daughter said, "Both the tobacco and the grinding stone have been thrown into the bush by the pig." "What!" charged mother tortoise. "Why have you done that?" "I was tired of your story. I got so angry that I threw your grinding stone and the tobacco into the bush," said the pig. "Look! I keep all my money in that grinding stone. It's my bank. Unless you find it, I won't pay you," the tortoise complained.

The pig went to look for the tortoise's grinding stone. He dug his nose into the ground. He did not find it, and has not found it yet. This is why the pig is still digging his nose into the ground.

Y100 002 11 11 11 11

3. My beautiful shirt

Once I had a beautiful shirt,
With blue, brown and red colours all over,
I wore my shirt at special times,
But it's now more holes than cloth.

I have looked at the small and the big holes,
Sometimes they have so much to tell,
And sometimes they say nothing at all,
I wonder why my shirt is all holes.

Musing I count the number of holes,
Where cloth has been eaten and disappeared,
And note the pieces that hang and flap,
It seems I must tell a story from this.

I try to mend with thread and needle,
As with deep thought, observation and care,
Either the needle's too small for the thread,
Or these aging eyes of mine fail me.

Gibson H. Zembeni

BEST AVAILABLE COPY

4. When I was a little boy

When I was young brimming with life,
 Life was so sweet and innocent,
 Never counted days as a year passed,
 A year that seemed double its length.

I enjoyed the fruits of my childhood,
 Side by side with my mother did I walk,
 She whispered, "Son, mind the years to come,
 Son, plan for a new blossom of life."

At meal times I sat on the floor,
 Waiting until elders dined their fill,
 We got away the leavings on their plates,
 And with fingers not cutlery we ate.

Whenever I misbehaved and proved naughty,
 Never did my mother spare any words,
 Like termites her words bored at my ears,
 To wake up my youthful brain.

My mother served me with a slap,
 If on deaf ears her words did fall,
 Adding a bite to her loud bark,
 Saying, "Spare the rod and spoil the child."

Proof of my mother's wisdom,
 Is the act of sending me to school,
 "The roots of education are bitter,
 But its fruits are sweet," she said.

Going to school was an investment she felt,
 Which I never realized would ever be so,
 Now I know I have inherited miracles,
 Which my age alone gradually reveals.

Mother, a huge debt of gratitude I owe you,
 A suitable word of thanks I do not know,
 For all the bounty to me you rendered,
 Life is sweet as I bathe in gold and silver.

Gibson H. Zembeni

BEST AVAILABLE COPY

BEST AVAILABLE COPY

155

5. Our precious environment

Have you ever stood and considered
 What the world does consist of,
 Eyes looking across the land,
 And wonder at the bounty the eyes behold,
 Precious things expressing God's exquisite arts?

Have you ever stood and felt thirsty,
 Drinking from rivers so wide and deep,
 How gratifying when the thirst is quenched,
 Thank God by whose water nature is nurtured,
 Could we have survived in a world without water?

Have you ever stood and felt very hot,
 Eyes looking around for a tree shade,
 Sitting in the shade at the form you marvel,
 Your question is so loud and clear,
 What would life be like in a world so bare?

Have you ever stood and observed
 The destruction quest for needs does cause,
 Air is unjustly polluted, and so is the water,
 The bush is burnt, the environment destroyed,
 Preserve the environment and preserve all life.

Gibson H. Zembem

Poems include rhymes that are easily sung once a tune is established. Like poems, rhymes enhance fluency development in speech. You need to establish a bank for poems, rhymes and short stories. As said earlier, you can cut these out of newspapers, magazines, old books and some, you can write yourself!

A calendar and weather chart

A calendar and weather chart is a chart for reading dates and weather conditions for each day. It also provides a meaningful context for discussing events in relation to the dates or weather conditions as well as writing about them.

Materials

- sheet of paper or cardboard
- pencils, crayons or pens
- glue or maize porridge
- pair of scissors, knife or razor blade

Monday

June

4th

Sunny

This is Monday
It is the 4th of June
The weather is Sunny

The bingo game for literacy development

Bingo was first introduced under numeracy development. While you write numbers on the bingo cards for developing numeracy, the bingo for language development uses words. In language teaching, the word bingo is equally as important and popular as it is in mathematics. It is a good energizer to the learners. The game is played like in mathematics where the words that are called out are covered and the first person or group to cover a given set of words correctly shouts immediately the word BINGO to announce the victory.

Materials

- cardboard, chart paper, or old calendars
- pencils, crayons, or pens
- scissors, knife or razor blade
- envelope
- maize porridge

Method

- Make some player cards 30 cm square.
- Write the words to be recognized by the learners on the cards.
- Write individual letters on cards or bottle-tops, if the Bingo game is centred on **word formation and spelling practice**.
- Prepare cover cards, the same size as the boxes or squares in which words or letters are written.
- Prepare a **master card** that contains all the words on the players' cards and some distractors.
- Mark the players' cards **A** and the Master card **B** for identity.

Sometimes the Bingo game is based on vocabulary or word building exercises. It is the teacher who determines what form the Bingo game should take. For example, the players' cards may contain words whose definitions are on the Master card. In other words, the players have cards with words, whereas the teacher has definitions for the words on the players' cards as well as the words themselves. The teacher reads out a definition and the players should cover the word that corresponds to the definition. In another Bingo, the game may take the form of changing words from singular to plural, present to past tense, verbs to nouns, nouns to adjectives, and so on. Variety will add to the thrill of the Bingo game.

Bingo A	
swarm	lord
death	pride
shoal	judge
mule	crowd
flock	pig
lion	herd

Bingo B	
swarm	lord
death	pride
shoal	judge
mule	crowd
flock	pride
lion	herd

CLUES FOR BINGO B.

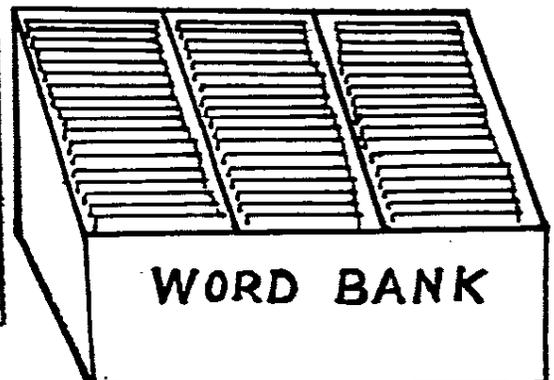
1. Give one word for :-

- A group of people is a
- A group of bees is a
- A group of ships is a
- A group of sheep is a
- A group of lions is a

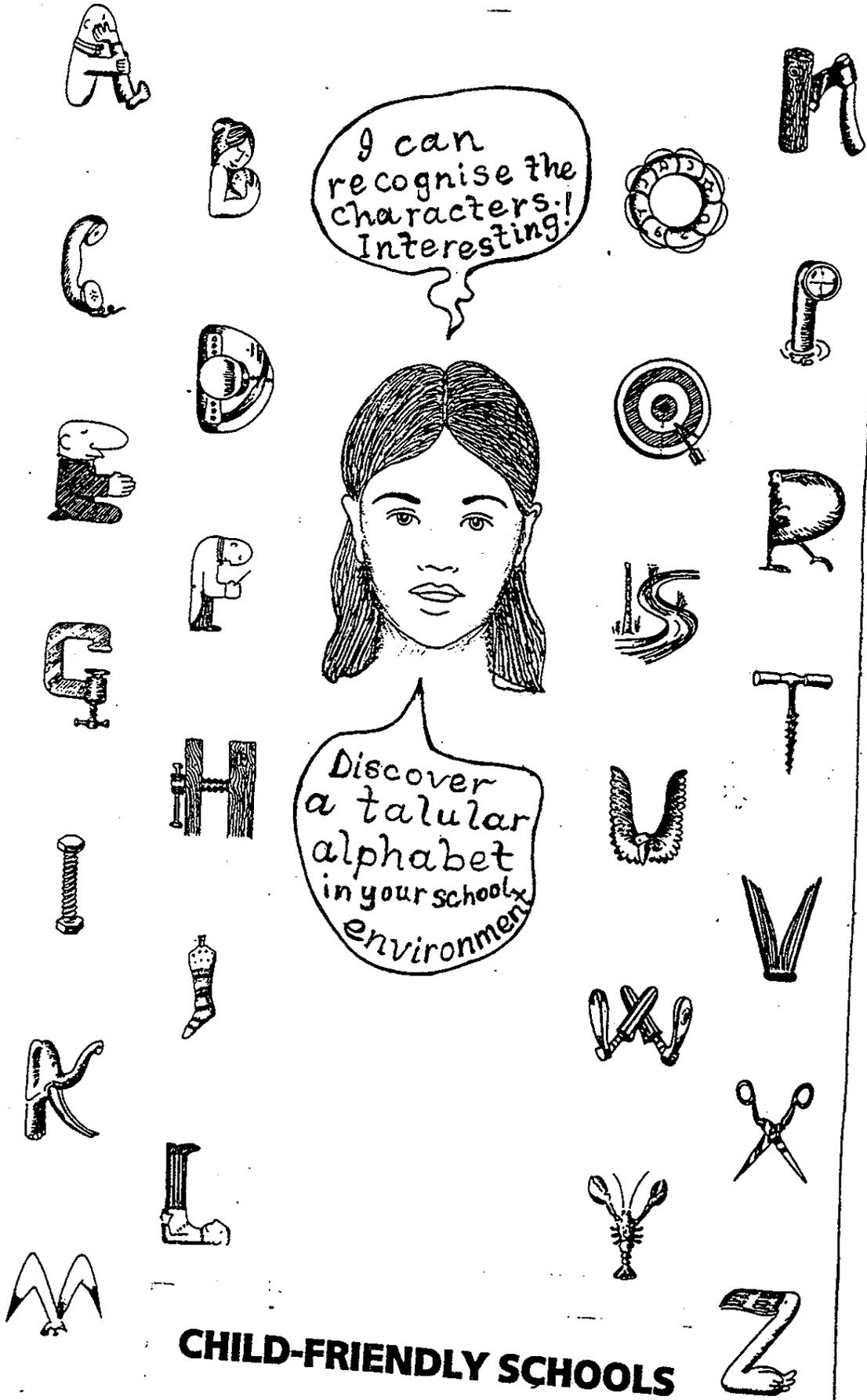
2. Complete the following similes:-

- as sober as a
- as drunk as a
- as sure as

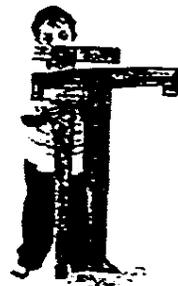
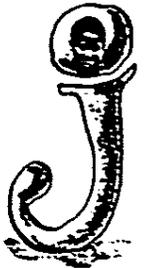
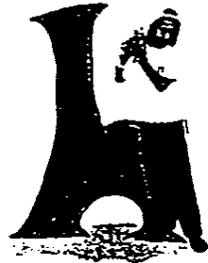
dancing

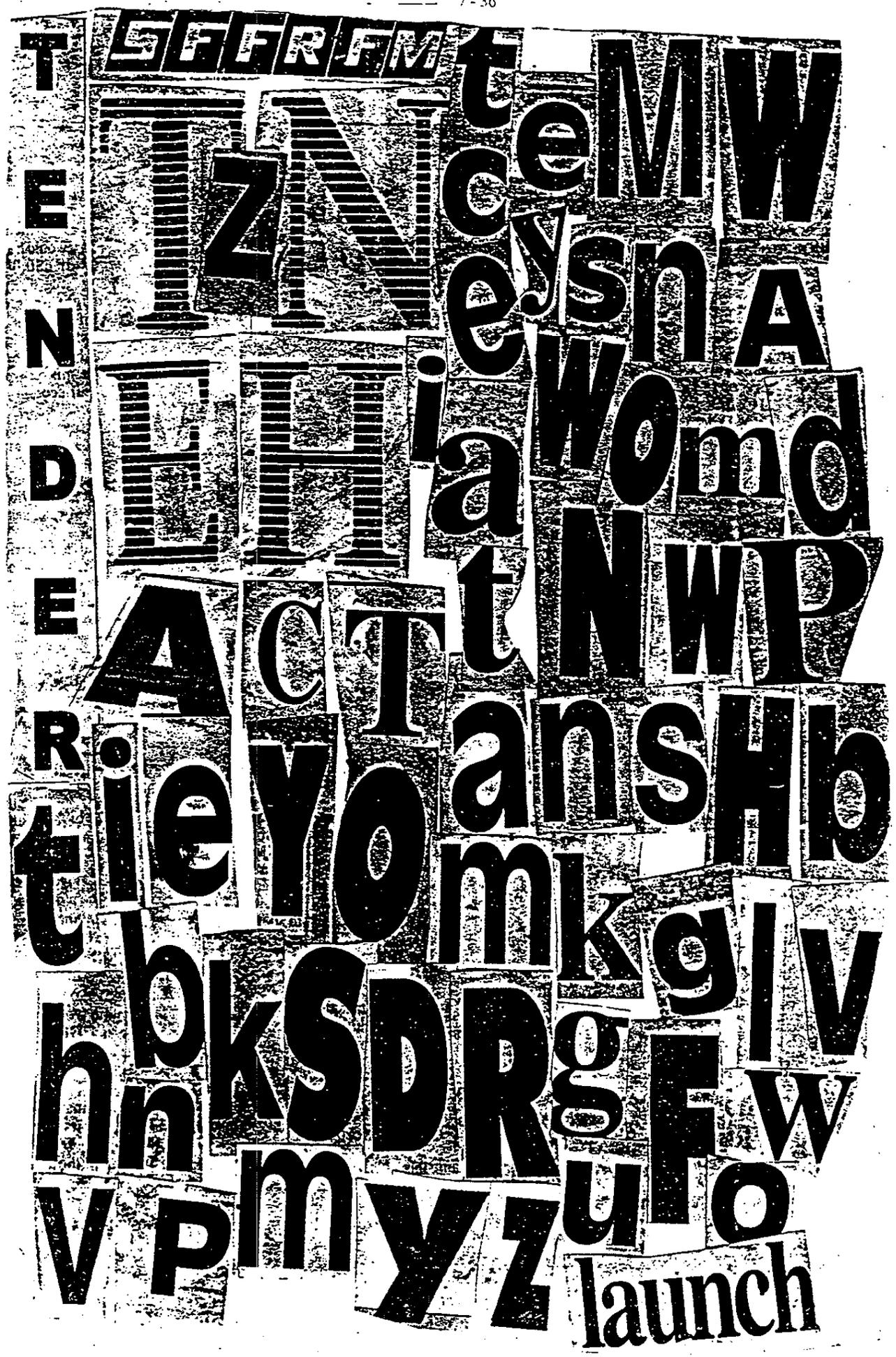


TALULAR



CHILD-FRIENDLY SCHOOLS

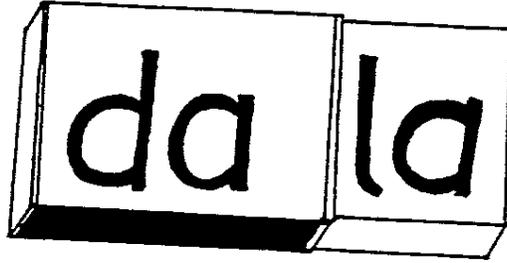
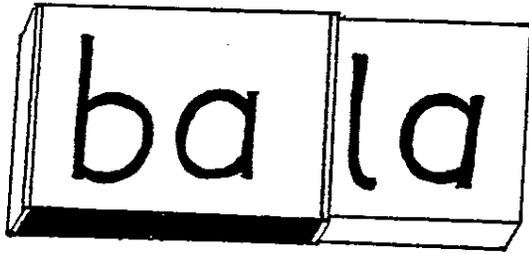




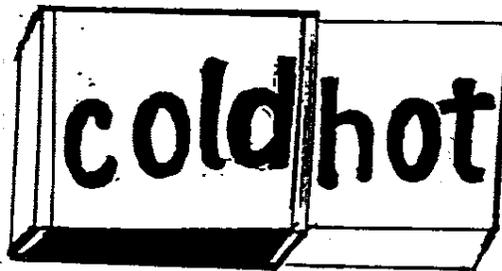
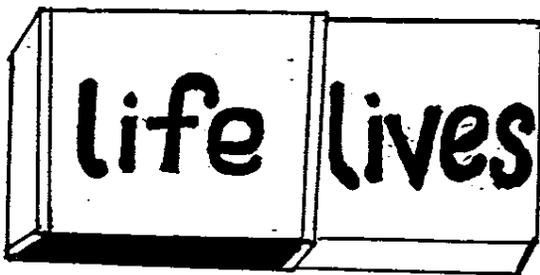
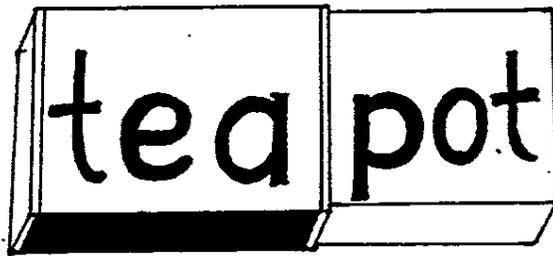
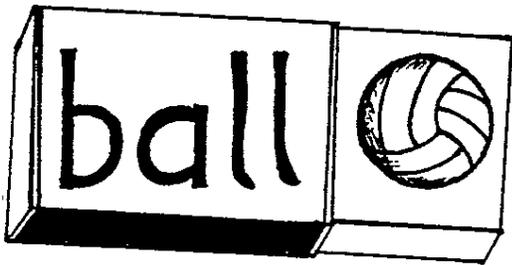
Get your alphabet from newspapers

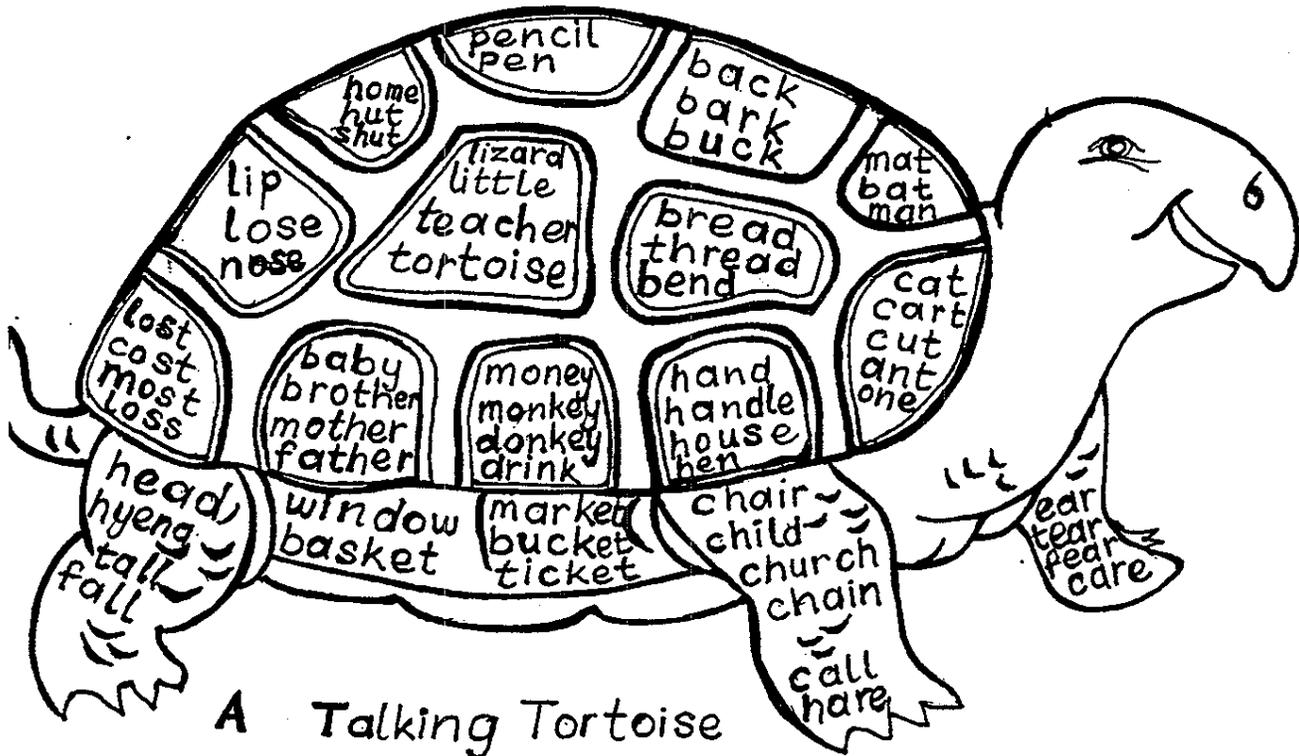
112

reading matchboxes in Chicheŵa

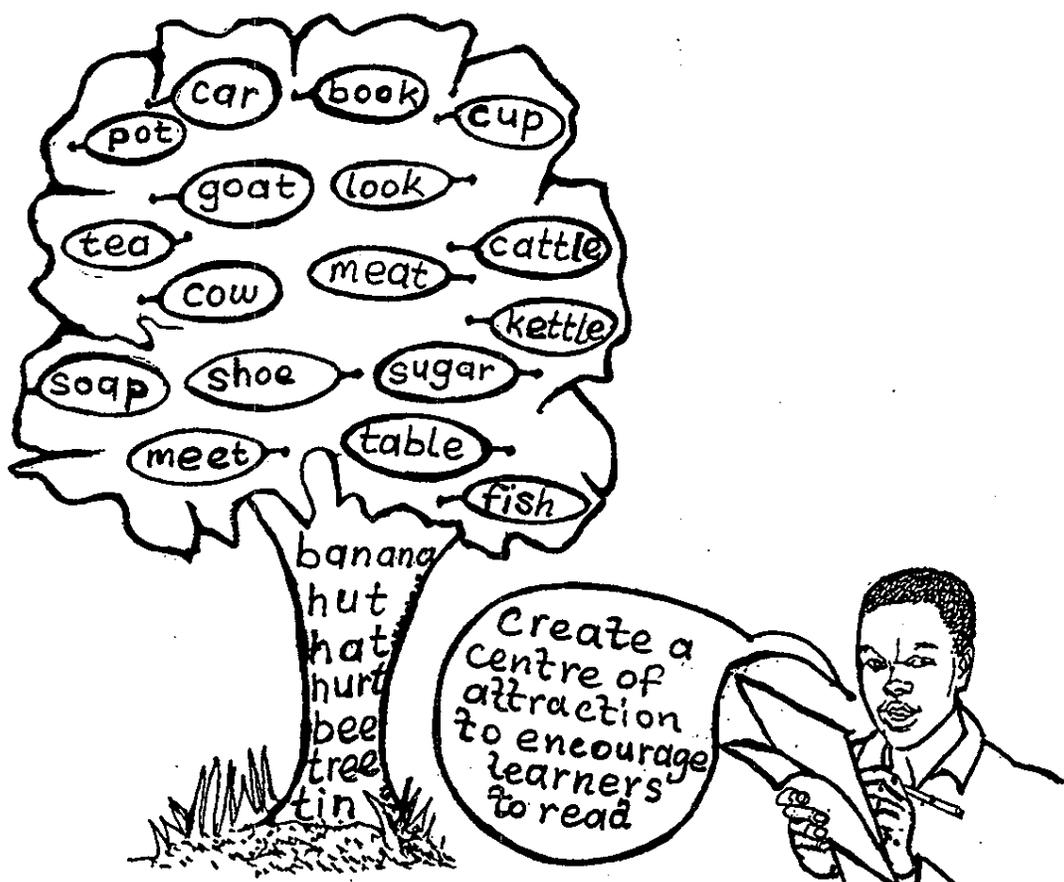


reading matchboxes in English

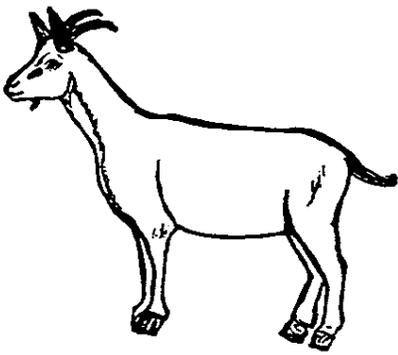




A Talking Tortoise



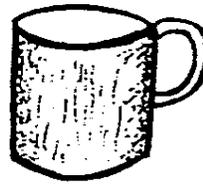
A Talking Tree



-oa-



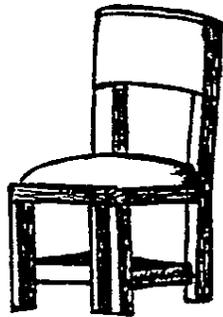
-ot



-u-



__irt



__air



__ncil



ta__e



__ee



_ar



__sk__

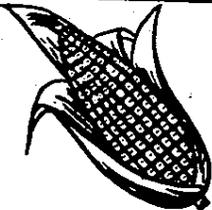


_all



h__se

Complete the names

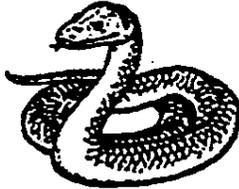
	<p>A matching activity. In another activity learners label by writing in the boxes.</p> 	basin
		tree
		house
		pot
		maize

USE TALULAR TO TEST VOCABULARY

Yesterday, I was walking along the

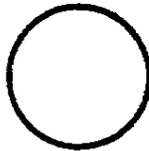


when I saw a



. It was coiled

in a



and its



was going

in and out. I picked up a large

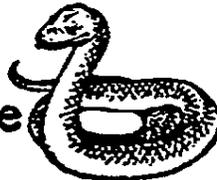


and threw it, so that it hit the snake

on the



. The



died and

I went on towards the



Alimi alandira mphoto

WOLEMBA

MTOLANKHANI WATHU

KAMPANI yogulitsa fodya ya British America Tobacco Malawi masiku apitawa idapereka mphoto za njinga khumi kwa achikumbe omwe adachita bwino pa chiwonetsero cha za ulimi chomwe chidachitika kwa Kunthembe m'boma la Blantyre.

Woimira kampani ya BAT a Alfred Machelo adati kampaniyi siidakaikupereka mphotozo poganzira ntchito yaikulu yomwe alimi amagwira polimbana ndi njala.

"Tidaona kuti ndi chinthu chanzeru kulimbikitsa alimi powapatsa mphoto zotere poganzira ndi m'mene iwo amadziperekera kwathunthu ndi cholinga choti apeze zinthu zina zosowa pa moyo wawo makamaka mayendedwe pokagulitsa katundu wawo," adatero a Machelo.

Mlendo wolemekezeka pa chiwonetserocho a Soya Kalombola yemwe ndi wapampando wa asembule ya mzinda wa Blantyre adathokoza kampani ya BAT ndi makampani ena monga Toyota Malawi, Admarc, Kukoma, Rab Processors, Panacid, Mansajo ndi Rice Milling popereka mphoto zosiyana siyana pa chiwonetserocho.

A Kalombola adapempha alimi kuti alimbikire kupanga manyowa omwe angathandize m'malo mwa fetereza kuti azikolora zochulukira.

EC iyambitsa ntchito yokhazikitsa zitupa

Yachokera pa tsamba 1

Mneneri wa bungwe la chisankholi a Fegus Lipenga adati kukhazikitsa ntchito ya chiphaso chokhala ndi nkhope ya munthu iyambika pa chisankho chapaderachi chomwe chikhalepo pa June 25, 2002.

Iwo adati zitupazo zizathandiza kuchepetsa ntchito yomwe imakhalapo pa nthawi ya chisankho yozindikira anthu omwe aponye nawo voti.

Iwo adatinso bungwe la chisankholo lidaganiza zoyambitsa ntchito yokhazikitsa zitupa zokhala ndi nkhope ya munthu ngati njira imodzi yolimbikitsara anthu kuti akachite nawo chisankhocho.

"Zitupazo zidzagwira ntchito zambiri kuphatikizapo kuti munthu atha kugwiritsa ntchito potenga ndalama ku banki ndi malo ena," iwo adatero.

A Lipenga adati ntchito yopereka zitupa zokhala ndi nkhopezo idzapitilira pokonzekera chisankho cha prezidenti ndi aphungu chomwe chidzakhalepo mchaka cha 2004.

Iwo adati malo oponyera voti mdziko muno adzakhala wotsegula isadafike nthawi ya chisankho kuti anthu adzapite ndi kukatsimikiza za maina awo ndi kusintha pamene pali poyenera kutero

kuti pokasindikiza zitupa zokhala ndi nkhopezo zidzakhale ndi umboni woyenera okha.

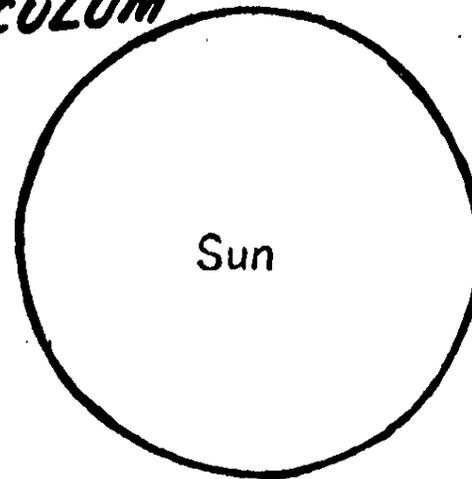
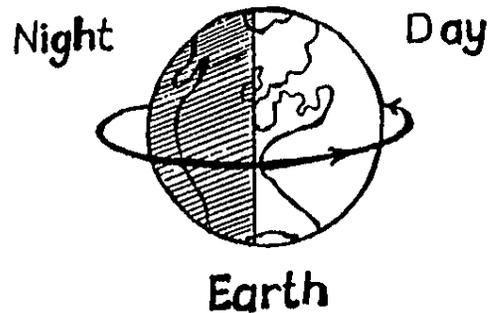
"Pa chisankho cha 2004 anthu onse adzakhala ndi zitupa ndi zokhala nkhope ya munthu osati zikalata zomwe zidagwiritsidwa ntchito zaka zapitazo," iwo adatero.

Iwo adati ndalama zomwe zagwiritsidwa pokonza zitupa zomwe zigwire ntchito pa chisankho chapaderachi komanso zomwe adzagwiritse ntchito pokonza zitupa zogwiritsa ntchito pa chisankho cha 2004 zidzakwana K967 miliyoni zomwe zidzachokere ku boma ndi ku maiko ena ndi ku mabungwe amene amathandiza dziko lino.

Komishonala wa bungwe la Chisankho amene adali nawo pa mwambo yoyambitsa ntchito yogawa zitupayo a Augustine Mtendere adati ntchito yopereka zitupayo yomwe ikuchitika kumalo onse oponyera voti ipitilira mpaka pa June 21.

Mwa zina pa chitupacho padzakhala chizindikiro cha bungwe loona za chisankho la Electoral Commission, chithunzi, dzina, komanso tsiku lomwe munthuyo adabadwa, boma, dera komanso nambala ya mwini chitupacho.

READING ACROSS THE CURRICULUM



We live on the earth.

It is round.

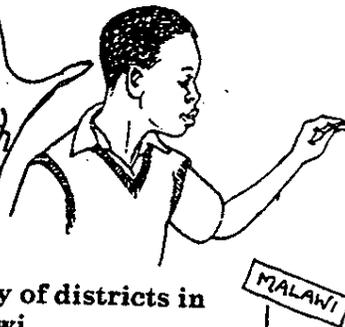
It is a planet.

The sun lights the earth.

The earth is like a giant ball spinning.

When our side of the earth faces the sun we have day.
It is night when our side of the earth is away from
the sun.

Increase reading practice with print from the environment



Population density of districts in Malawi

According to the 1987 population statistics the following were the population densities by district:

Region	Population	Area in sq. km	Population density Persons per km ²
Northern	0,911,787	0,026,931	034
Chitipa	0,096,794	0,004,288	023
Karonga	0,148,014	0,004,288	044
Rumphi	0,096,902	0,004,769	020
Mzimba	0,433,699	0,010,430	042
Nkhata Bay	0,138,318	0,004,089	034
Central	3,110,986	0,035,592	087
Kasungu	0,323,453	0,007,878	041
Nkhotakota	0,158,044	0,004,259	037
Ntchisi	0,120,860	0,001,655	073
Dowa	0,322,432	0,003,041	106
Salima	0,189,173	0,002,196	086
Lilongwe	0,976,627	0,006,159	159
Mchinji	0,249,843	0,003,356	074
Dedza	0,411,787	0,003,624	114
Ntcheu	0,358,767	0,003,424	105
Southern	3,965,734	0,031,753	125
Mangochi	0,496,578	0,006,273	079
Machinga	0,515,265	0,005,064	086
Zomba	0,441,615	0,002,580	171
Mwanza	0,121,513	0,002,295	053
Chiradzulu	0,210,912	0,000,767	275
Blantyre	0,589,525	0,002,012	293
Mulanje	0,638,062	0,003,450	185
Thyolo	0,431,157	0,001,715	251
Chikwawa	0,316,733	0,004,755	067
Nsanje	0,204,374	0,001,942	105



NSANJE
105
PEOPLE PER
KILOMETRE²

Bigtox[®]
MOSQUITO COILS

Pure...mild...
SUNLIGHT

NEW
LIFEBODY[®]
SOAP FOR HEALTH

Cashew Nuts



Sunshine

AIRMAIL



Likuni Phala
Baby food cereal

GRAND BRIDGE



LUCKY STAR



Clear-tone
skin toning cream

TOOTH

SUN 'N' SAND
HOLIDAY RESORT

Print from the environment for recognition, discussion, composition



BUTTERCUP MARGARINE

5

HEALING SOLUTION

USEFUL THINGS FOR WHO REALLY CARE

5
BROTHERS

THINGS FALL APART

The doors open now

NEW STOCK

Clearance Sale

100 ml.

MASSIVE DISCOUNTS

HURRY Regular

WHICH
**LANGUAGE
SKILLS**
HAVE WE
PRACTISED
TODAY?

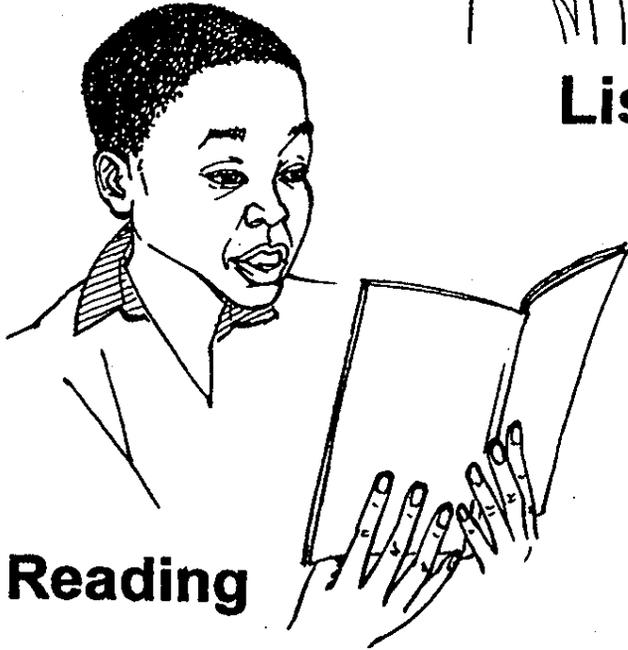


Listening

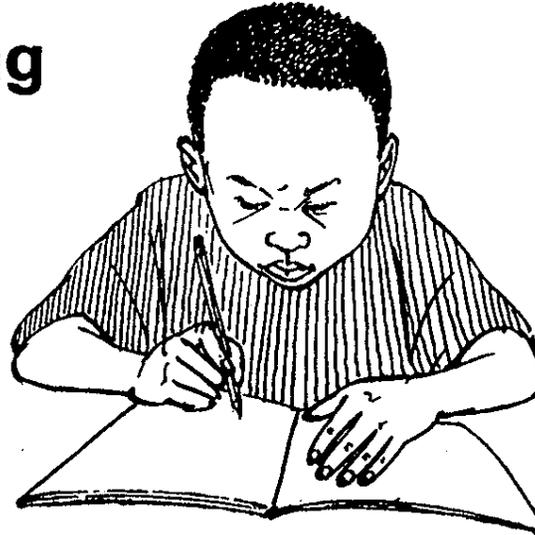
HAVE WE
PRACTISED
ALL
4?



Speaking



Reading



Writing

REMEMBER!
EVERY TEACHER
IS A
**LANGUAGE
TEACHER!**
WHAT DO
YOU THINK?

172

UNIT 8

Lettering

Introduction

Lettering is part of drawing because letters are formed by arranging or organising lines: straight, curved and zigzag lines. Lettering is required for chalkboard writing, producing word cards, reading charts and labelling drawings. Students need to develop good handwriting and good writing habits. It is essential to teach them lettering systematically. Furthermore, students learn writing by writing as often as necessity requires.

Objectives

By the end of this unit you will be able to:

- list down instruments for writing
- state guidelines for teaching lettering
- make ink for writing
- demonstrate an understanding of how TALULAR enhances the teaching of lettering

Lettering instruments

Activity 1

Working in groups:

- discuss instruments for writing
- state the guidelines for teaching lettering

Report your work in a plenary after 20 minutes. Reporting time is 20 minutes.

Feedback

The following are normally referred to as instruments for lettering:

The alphabet

- Lettering uses a set of letters which make up the alphabet.
- The English alphabet has twenty-six letters whereas Chichewa/Chinyanja uses twenty-four letters, excluding q and x.
- Letters are either small or capital (big) letters.
- Small letters are called Lower case and capital letters are called Upper case.

Pens

These are instruments used together with ink or paint to make marks on paper to create lettering. Commonly used writing or lettering instruments include fountain pens, ballpoint pens and felt pens. TALULAR promotes the use of the following:

Feathers

- Select quill feathers
- Sharpen the quill with a knife or razor blade.
- Dip the sharp end into ink or paint and write.
- Try to write letters, words and sentences.

Pieces of a reed mat

- Select some pieces of a reed mat.
- Sharpen one end of each piece with a knife or razor blade.
- Select pieces of grass, wood, bamboo and a strip of cardboard and sharpen them with a knife or razor blade.
- Write letters, words and sentences with the writing instruments so made.

A dead marker or felt pen

- Find some ink or paint.
- Write letters, words and sentences by dipping a dead marker or felt pen in ink or paint.

A paint brush

- Find paint brushes.
- Make the tips of the brushes thin by shaping with a pair of scissors or razor blade.
- Write letters, words and sentences with the brushes.

A ruler

- Use a ruler to draw faint guidelines before lettering.
- Encourage every learner to use a ruler to develop good layout both in numeracy and literacy.
- Make your own talular rulers from bamboos.
- Cut a bamboo at the nodes and with a knife, split it into pieces that are 20 cm to 25 cm long and 2 cm to 3 cm wide.
- Cut cardboard, biscuit boxes and other similar materials with a pair of scissors into pieces with straight edges.
- Draw margins, underline some words, draw guidelines to maintain good height and pattern of letters with the straight edged pieces of cardboard.
- Be consistent in order to establish good writing habits.
- Talularize any object that has a straight edge to draw straight lines. For example, pencils, books, louvres, window panes, broken window frames, picture frames, all make good rulers.

Some ideas about lettering

- **Weight of letters**

Weight of letters refers to the thickness of the strokes. The strokes may be light, medium or bold.

LIGHT

light

MEDIUM

medium

BOLD

bold

In ordinary writing, lower case letters are easier to read than upper case letters, although the latter attract attention more quickly. Use capitals for short words or phrases for emphasis or highlighting. Small letters are recommended for longer words and sentences.

- **Fount**

Fount refers to letter size and style. Numbers are used to represent various letter fonts. Sometimes font is spelt "font."

Humanist 521 Light BT (TrueType)

Typeface name: Humanst521 Lt BT

File size: 36 KB

Version: mfgpctt-v1.52 Wednesday, January 13, 1993 4:36:07 pm (E9)

Copyright 1990-1993 Bitstream Inc. All rights reserved.

abcdefghijklmnopqrstuvwxyz

ABCDEFGHIJKLMNOPQRSTUVWXYZ

1234567890.:;('!*!?)

12 The quick brown fox jumps over the lazy dog. 1234567890

18 The quick brown fox jumps over the lazy dog. 1234567890

24 The quick brown fox jumps over the lazy dog.

36 The quick brown fox jumps ove

48 The quick brown fox jui

60 The quick brown fc

72 The quick brow

- **Spacing**

Spacing is concerned with how far apart lettering elements are. Spacing is classified as follows:

- **Letter spacing:** This means how far apart letters are in a word. If letters are too close together, reading may be difficult, too far apart reading may also be difficult. The usual rule is that the area between each pair of letters should be kept even to create an even pattern.
- **Word spacing:** This refers to how far apart words are from each other in a sentence. Words too close to each other or too far apart can make a text difficult to read.
- **Line spacing:** This refers to the area between any two lines of letters. Easy reading of any text also depends on line spacing. There are no standard rules, but a proportion that is often recommended is that the space between lines should be equal to the height of the lower case letters. Also, more space should be allowed between paragraphs and after a title or heading.
- **Mechanical spacing:** This is concerned with the use of measuring instruments or technical aids such as rulers, measuring tapes, and set squares to determine how far apart from each other letters, words or sentences should be.
- **Optical spacing:** This involves the use of eyes to determine the area between letters, words and lines or sentences. In lettering optical spacing is used more than mechanical spacing because optical spacing is considered faster, unless you use a word processor.

Height of letters

Height of letters means how tall the letters should be. Having drawn two guidelines to establish the space where letters should be written, half or two thirds of this space marks the height of the lower case letters and the two guidelines also mark the height of the upper case letters. The height of the lower case letters is normally two thirds or half of the height of the capitals.

The sentence "**The quick brown fox jumps over the lazy dog**" contains all the letters of the alphabet. If, for instance, learners wrote this sentence five times, they would practise writing each of the letters, a to z, five times.

Guidelines for teaching lettering

<p>Activity 2</p> <p>Individually, practise writing the sentence "The quick brown fox jumps over the lazy dog" in line with the half and the two-thirds height guidelines. Use a ruler for drawing guidelines and write both in print and in cursive.</p> <p>Working in groups, discuss the guidelines for teaching lettering to young learners.</p> <p>Report your work in a plenary after 30 minutes. Reporting time is 20 minutes.</p>
--

Writing with various pens

A quick brown fox jumps
over the lazy dog.

A farmer does not miss a harvest.
writing with a feather in $\frac{1}{2}$ Height

A quick brown fox jumps over
the lazy dog.

$\frac{2}{3}$ Height

A quick brown fox jumps over the
lazy dog.

writing with polished grass pen

A quick brown fox jumps
over the lazy dog.

writing with a reed pen

**A quick brown fox jumps
over the lazy dog.**

writing with a dead marker
dipped in ink

A quick brown fox jumps
over the lazy dog.

writing with a bamboo pen

Feedback

The following tips should be considered when teaching lettering to young learners:

- Let learners practise drawing the basic structures such as straight lines, curved lines, zigzag lines and sloping or slanting lines. This activity helps learners to develop hand flexibility. Also, these basic structures are used in writing any of the letters of the alphabet. Fluency in writing these structures makes it easy for learners to produce each of the letters.
- Let learners trace or feel the letters using letter blocks or letters cut out of sand paper and pasted to a board with the rough surface facing upwards. Tracing or feeling the letters develops learners' hand and eye coordination. Make your own talular sand paper as follows:

Materials

- exercise book covers or cardboard
- fine grains of sand
- scissors, a knife or razor blade
- maize or cassava porridge

Method

- Smear the porridge on the exercise book cover or on the cardboard.
 - Sift the fine grains of sand over the porridge.
 - Leave the cover or cardboard in the sun for the porridge to dry.
 - Cut out the letters of the alphabet from the cover or cardboard.
 - Paste each letter on cardboard with the porridge in such a way that the rough surface faces upwards.
- Let learners mould or model the letters of the alphabet, both in lower case and upper case, with clay or pulp or plasticine if available. This activity is intended to familiarize learners with the shape and form of each letter. The pulp for making letter blocks is prepared as follows:
 - tear pieces of paper
 - soak the pieces of paper in water
 - take the pieces of paper out of the water and put them into a mortar
 - pound the pieces of paper with a pestle to make a paste like stuff; this is pulp
 - mix the pulp with porridge to make it sticky
 - mould the letters of the alphabet and numbers
 - Draw some letters on the floor or on the ground and let learners walk along each letter. You can form letters with a string or rubber band instead of drawing them, particularly if the ground has grass.
 - Relate the basic structures such as straight lines, curved lines, sloping lines and zigzag lines to individual letters because the form of each letter is derived from the basic structures.
 - Let learners practise writing in the air, in the sand, on the chalkboard, slates and paper. This arrangement increases opportunities for adequate writing practice.
 - Do not teach the whole alphabet at once. Break it into manageable units. Ensure that one unit is mastered first before going on.

- Do not teach lower case and upper case letters simultaneously because the two letter cases are not necessarily the same in form.
- Use a lettering vocabulary or song in order to make the writing practice fun. The use of a lettering vocabulary or a song will make writing easy and enjoyable. There are several versions of the lettering vocabulary or rhythm as well as tunes that help children remember how to write each letter. Learners get very excited about the writing activity. This is writing made simple. Below is one example of lettering vocabulary or rhythm. You are not restricted to this one alone, it is simply a starting point. Many ways reach home, so goes the saying. The translation makes it easier for you to adopt it for teaching lettering in a language other than Chichewa/Chinyanja.

a	Kampira small ball	kwera go up	kandodo short stick	
b	Chindodo long stick	kwera go up	kampira small ball	
c	Kamwezi small moon			
d	Kampira small ball	kwera go up	chindodo long stick	
e	chimutu big head	khota bend		
f	khota bend	chindodo long stick	dula cut	
g	kampira small ball	kwera go up	mchira tail	khota bend
h	chindodo long stick	thumba bag		
i	kandodo short stick	dontho dot		
j	dontho dot	mchira tail	khota bend	
k	chindodo long stick	lowa enter	tuluka go out	
l	chindodo long stick			
m	kandodo short stick	thumba bag	thumba bag	

n	kandodo short stick	thumba bag		
o	kampira small ball			
p	mchira tail	kwera go up	kampira small ball	
q	kampira small ball	kwera go up	mchira tail	kwera go up
r	kandodo small stick	kwera go up	denga roof	
s	njoka snake			
t	ndodo stick	dula cut		
u	zende swing	kandodo short stick		
v	tsika go down	kwera go up		
w	zende swing	zende swing		
x	pingasa cross			
y	zende swing	mchira tail	khota bend	
z	lowa enter	tuluka come out	pita go	

- Always bear in mind the fact that the teacher's own example is the best example. Write neatly and in good handwriting to set a good model for the learners.
- Supervise learners' writing. Criticize tactfully and be consistent. Insist on good letters, neatness and legibility at all times and in all writing situations.
- Letter combinations to form syllables and words should be done as soon as learners master single letters.
- Integrate lettering or writing with tasks or assignments in various subject areas. The work in the various subjects provides a more appropriate context for continued handwriting development. Also, remember that every subject has its own literacy to be mastered by every learner.

Changing from print to cursive

In print the letters are kept separate and in cursive the letters that form the same word are joined to enhance fast writing. Remember the following tips:

- Teach print first so that learners master writing every letter.
- Teach cursive writing gradually, lead learners into constant practice.
- Print the letters first. Secondly join the printed letters in each word. This process allows a smooth transition from print to cursive writing.
- Remember, students learn to write by writing. Extend cursive writing to all writing situations in the various subjects of the curriculum.

School handwriting policy

It is good practice if a particular school comes up with a handwriting development policy for every teacher to abide by. Teachers ought to work collectively from the first grade or class to the last grade or class towards developing learners' handwriting consistently. Every teacher should be committed to this task. Emphasis should be put on good writing habits in every class and in every writing situation across the curriculum.

Activity 3

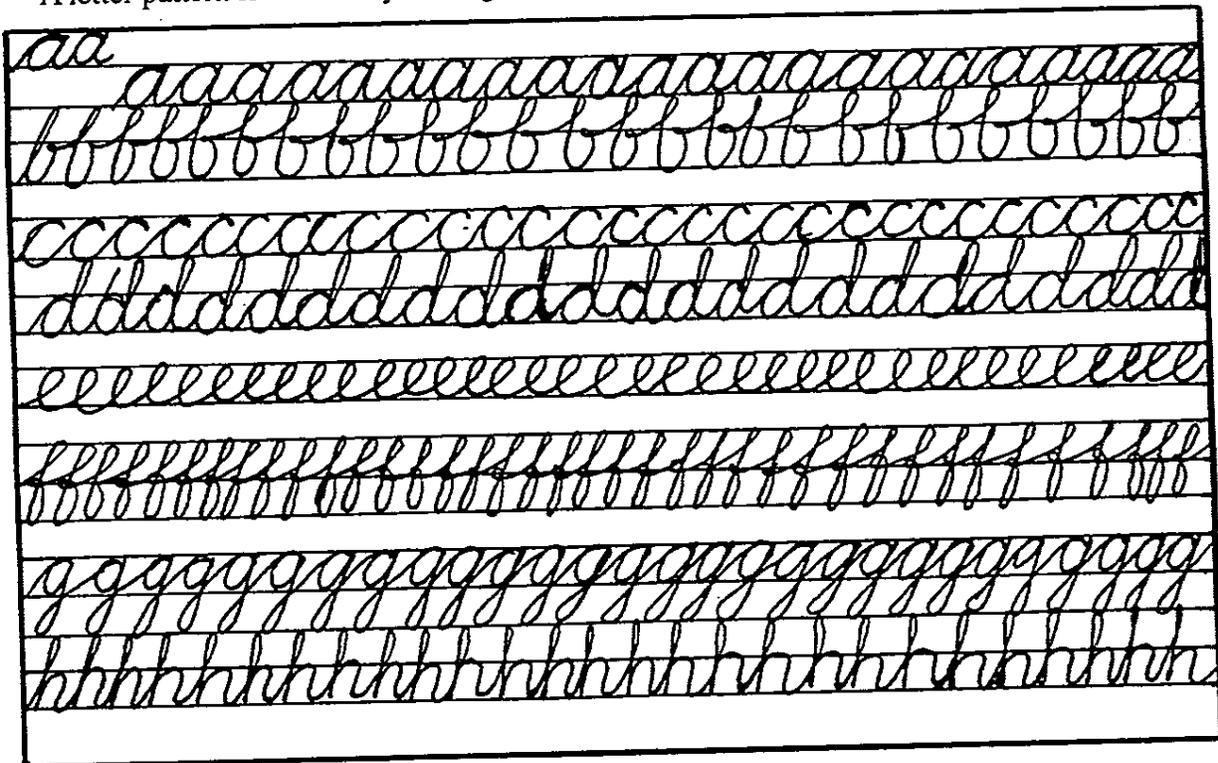
Working in groups:

- discuss letter patterns derived from the letters of the alphabet you would use to enhance learners cursive writing.
- engage in cursive writing practice by developing the letter patterns discussed above on chart paper.

Display your work on the wall, tables or floor after 20 minutes.

Feedback

- A letter pattern is created by writing the same letter repeatedly. For example:



- Prepare a chart on letter patterns and display it in the classroom for learners to copy from. It is also possible to create letter patterns on strips of paper or cardboard instead of a chart.

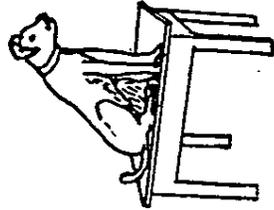
As learners practise writing, insist on consistency and legibility. Handwriting should be developed formally through provision of a variety of writing situations. Remember, one learns to write by writing.

John

water

a chair

Reading cards for recognition



front view

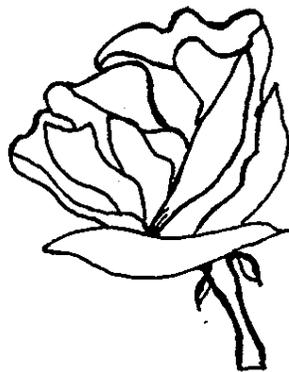
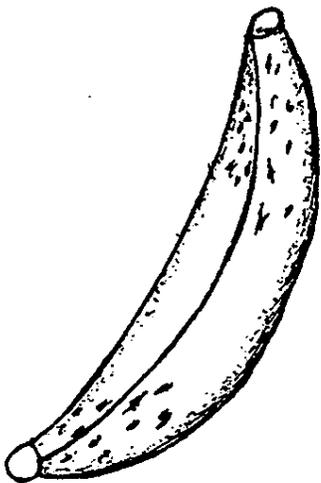
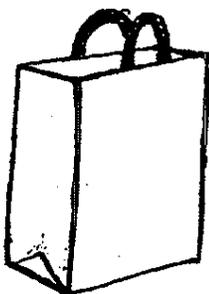
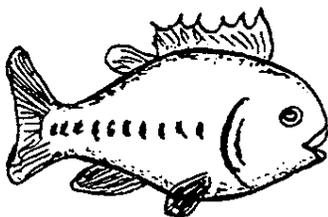
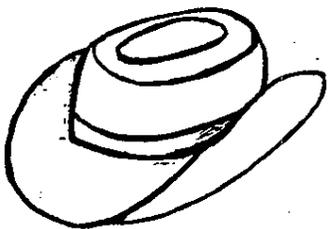
What is this?

This is a

What is it doing?

It is sitting on the

back view

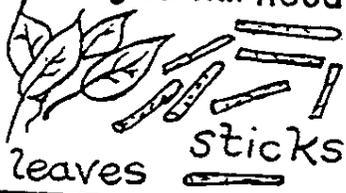


Name these objects or match with name cards

TALULAR

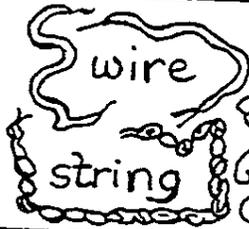
Making letters & numbers

What you will need



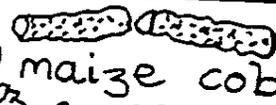
leaves

sticks



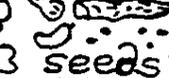
wire

string

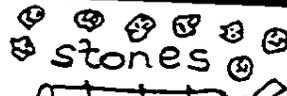


maize cob

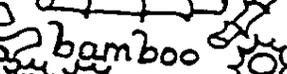
cores



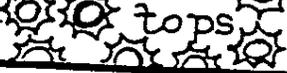
seeds



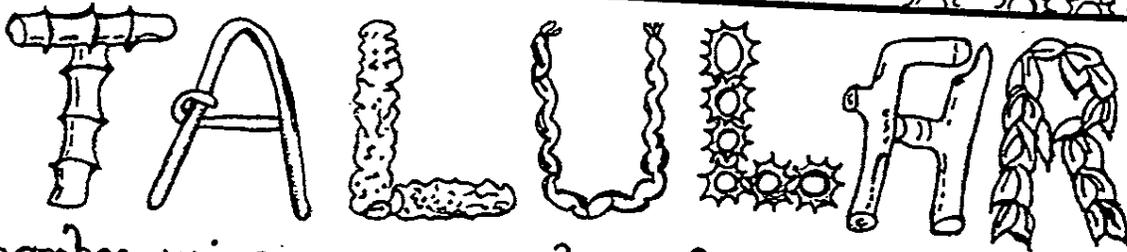
stones



bamboo



tops



bamboo

wire

cores

string

tops

sticks

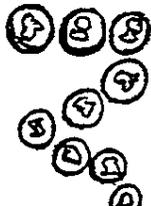
leaves



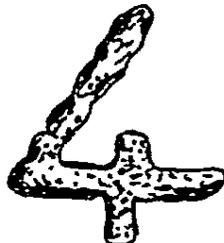
stones



seeds



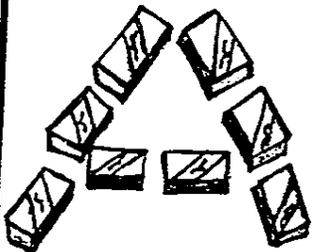
coins



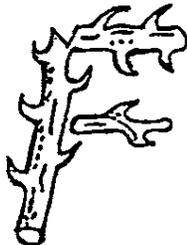
clay



metal packing strip



matchboxes or similar



broken sticks



paper strips



fruit pencil



baked flour

What would you use to make giant-sized letters for your class? Children will enjoy finding out.

What sound is this ?

Bb

b

as in bag, bin,
banana, book.

Now give your own words
which contain this sound:
blanket, baby,
bird, bus, beans.

What is this sound ?

Gg

g

as in game, girl,
give, get, grow.

Now give your own
words which contain this
sound: goat, leg,
glass, grass, green.

This is guided reading to ensure that learners have a good foundation. Use of portable boards is helpful



Handwriting development has to be systematic. Learners need a good model.

Let us write this sound:

Bb

b

Long stick |, up small ball
o. Or in Chichewa or
Chinyanja: Chindodo |
kwera kampira o.

bbbbbbbb

Now write these words:
banana, book, beans.

Let us write this sound:

Gg

g

A small ball o, up, tail
and bend. Or in Chichewa
or Chinyanja: Kampira o,
kwera, mchira, khota.

gggggggggggggggg

Now write the words:
girl, dog, green, goat, leg.

UNIT 9

TALULAR techniques and aids for chalkboard work

Introduction

The chalkboard is the most commonly used teaching and learning resource available to teachers. In situations where pupils' books are few or scarce, the teacher copies the work on the chalkboard and refers to the chalkboard as an alternative to using pupils' books. Writing on the chalkboard requires practice. Without constant practice the writing either goes uphill or downhill, the strokes are faint or thin.

Talular techniques and talular technical aids are essential in enriching the teacher's expertise in chalkboard work. Effective use of the chalkboard can contribute to attracting learners' attention in the classroom. Emphasis is not only on using the chalkboard in the absence of textbooks, but also on good chalkboard layout, illustrations, handwriting development and summary planning.

Objectives

By the end of this unit, you will be able to:

- describe the dos and don'ts associated with using the chalkboard
- list down chalkboard talular technical aids
- use the chalkboard effectively by applying some talular techniques
- make some chalkboard talular technical aids

Effective use of the chalkboard

Teacher training should include chalkboard practice based on writing and drawing. Chalkboard work is an integral part of lesson presentation. It also forms part of what learners copy from the teacher. It is important that the teacher presents work systematically on the chalkboard in good writing to establish good layout and provide a good model for the learners. Chalkboard practice should not end at the teacher training college, rather it should continue throughout one's teaching career.

Activity 1

Working in groups:

- discuss how you would ensure that writing on the chalkboard does not consume most of the learning time
- describe the dos and don'ts associated with using the chalkboard
- list down some chalkboard talular technical aids

Report your work in a plenary after 20 minutes - Reporting time is 15 minutes

Feedback

In order not to waste time as a result of writing on the chalkboard during the lesson, you should do the following:

- write on a portable board in advance
- write on a chart in advance
- write on the chalkboard in advance by dividing your chalkboard space into several columns

Dos and don'ts associated with using the chalkboard

Here are a few tips on effective use of the chalkboard:

- Learners to make quick illustrations on the chalkboard using the drawing alphabet as a guide.
- Divide the chalkboard into columns and use them systematically from the left to the right.
- Set your work neatly and orderly to set a good example for your pupils.
- Write briefly and keep turning towards the learners after writing something.
- Avoid talking to the chalkboard while you write on the chalkboard because learners may not follow, or this may lead to unnecessary noise.
- Underline headings and important key elements you want to emphasize, with a ruler.
- Draw important and complicated diagrams in advance to save time for teaching and learners' practice.
- Write in such a way that what you write makes sense, that is, learners should follow without difficulty.
- Keep your writing bold for easy reading from the back of the classroom.
- Step back and proofread your chalkboard work to correct any mistakes that may exist.
- Keep your hand flexible and write freely.
- Keep moving in the direction of your writing as you write.
- Avoid turning your back to the learners for more than 30 seconds at a time while you write on the chalkboard as this tends to slow the momentum of the lesson presentation and reduces learners' concentration.
- Keep practising writing on the chalkboard to ensure effective and efficient use of the chalkboard.
- Clean the chalkboard after use, clean the chalkboard with a wet piece of cloth at the end of the school day.
- Paint the chalkboard regularly.
- Allow pupils' points of view to be written on the chalkboard. This is where both the teacher's and learners' thinking meet.

Talular technical chalkboard aids

Talular technical chalkboard aids are materials that you can use when working on the chalkboard.

In other words, these are chalkboard tools. Normally, your efficiency in using the chalkboard very much depends on the number and quality of tools or aids you use. The following are some of the chalkboard aids you can use:

- **Chalk** - In the absence of the conventional chalk, you can use cassava. Remove the outer cover, shape it to size and dry the pieces (makaka in Chichewa/Chinyanja)
- **Chalkboard duster** - In the absence of the conventional duster, you can use pieces of cloth. Make a small bag with a piece of cloth or blanket by sewing with a needle and thread. Fill the bag with cotton wool, or small pieces of cloth or blanket or an old sweater and complete the sewing.
- **Chalkboard ruler** - Split bamboo pieces, a piece of plank with a straight edge or a piece of broken window frame can make a talular ruler.
- **Strings** - You can make strings from sisal and other plant fibres. You can draw straight lines and geometrical shapes.

- **Stencils** - You can make your own stencils from cardboard or a thin sheet of metal. Write the letters of the alphabet, numbers or draw geometrical shapes such as squares, circles, triangles and rectangles. Cut out the letters, numbers and geometrical shapes with a knife or razor blade to make stencils. You use the hollow spaces in the stencil to write letters, numbers or geometrical shapes with a piece of chalk.
- **Templates** - You can make templates from cardboard plywood or a plank. You draw something on the cardboard or plywood such as a map, a human figure, an animal figure and a geometrical outline to make a template; you cut out the drawing along the outline. You can draw maps, human and animal figures by drawing around the template.
- **Perforated outlines** - You can make perforated outlines of maps, human figures, animal figures, plant diagrams, and geometrical shapes from cardboard, a thin sheet of metal or plywood. To make a perforated map outline, you draw the map and make holes with a knife, razor blade or a heated piece of wire along the outline. You make marks on the chalkboard with a piece of chalk through the holes.
- **Card compass** - You can cut a card compass from cardboard. Cut a piece 30 cm long by 8 cm wide. Make several holes the same size as a piece of chalk through the centre with a knife or razor blade. You can draw circles with it. Make several holes both on the left hand side and the right hand side of the card. Insert a ballpoint pen in one hole on the left hand side of the card with the tip of the pen touching the chalkboard firmly. Insert a piece of chalk in another hole on the right hand side of the card with the piece of chalk touching the surface of the chalkboard. Hold the ballpoint pen firmly in the same position and move the card compass round while drawing with the piece of chalk. Your drawing is a circle. By changing the position of the ballpoint pen or the piece of chalk you can draw a larger or smaller circle.
- **Pointer** - You can use a stick. Other talular pointers include rolled pieces of paper pasted together with porridge to make a long piece, an iron rod from an old umbrella, a piece of wire, a piece of bamboo, reed and an old radio aerial.

Making your own talular technical aids

As said earlier, your efficiency in the use of the chalkboard will depend on the chalkboard aids you use. It is important that you make your own collection of technical aids for your chalkboard work.

Activity 2

Working in groups:

- make a visit into the environment and collect various items that would facilitate your work in coming up with a chalkboard aids kit
- Write a summary of the resources you can use to make chalkboard aids such as chalk, a chalkboard duster, a chalkboard ruler, a string, a stencil, a template, a perforated outline, and compass, a kit and a pointer.
- Make your own chalkboard aids kit.

Feedback

The following summary will help you consolidate what you have done so far in terms of what you would need in order to come up with the chalkboard aids mentioned above:

Chalk

- raw cassava
- water for washing the cassava
- a knife for shaping the cassava into pieces of chalk
- a mat or plastic sheet for drying the pieces of cassava

Duster

- pieces of cloth, blanket or an old sweater
- a needle
- thread or sisal fibre for sewing the pieces of cloth into a bag
- cotton wool
- a pair of scissors for cutting the pieces of cloth or blanket

Ruler

- a piece of bamboo
- a knife for splitting the bamboo into pieces and shaping the pieces into rulers
- cardboard
- a pair of scissors for cutting the cardboard into rulers
- planks with straight edges may be cut into ruler sizes

String

- sisal fibre and other plant fibres
- cane (chipapati, chilambe in Chichewa/Chinyanja)
- rubber bands
- a knife or a razor blade for cutting the rubber bands into shape

Stencil

- cardboard
- a thin sheet of metal
- a pencil or pen
- a knife or a razor blade
- a pair of scissors for cutting the cardboard and sheet of metal

Template

- cardboard
- a pair of scissors or razor blade
- a pencil or pen for drawing the outline of the template for a map, an animal, a human figure

Perforated outline

- cardboard
- a pair of scissors
- a knife or razor blade
- a pencil or pen
- a piece of wire
- a heater for heating the piece of wire
- a nail
- a thin sheet of metal

Card compass

- cardboard
- a knife or razor blade
- a pair of scissors
- pieces of old ring files

Kit

- a paper bag
- a tin
- a plastic carrier bag
- a carton
- a wooden box
- a basket
- a sack

Pointer

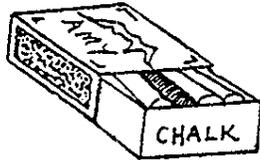
- a stick
- a reed
- a bamboo
- an iron rod (possibly from an old umbrella)
- a broken radio aerial

How many of the chalkboard aids mentioned above are available in your classroom? How and when will you make those that are missing available for effective chalkboard use? Having gone through the unit, it is hoped that you can easily make them available.

Making and using teaching and learning resources

Chalkboard skills

The chalkboard is the major teaching and learning resource available to Malawi's teachers. Here are just a few tips we would like you to pass on to the student teachers.

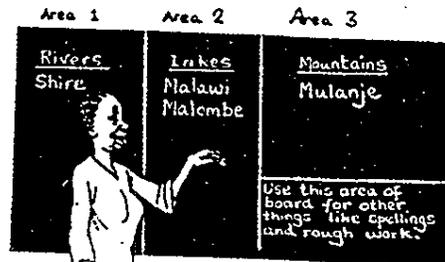
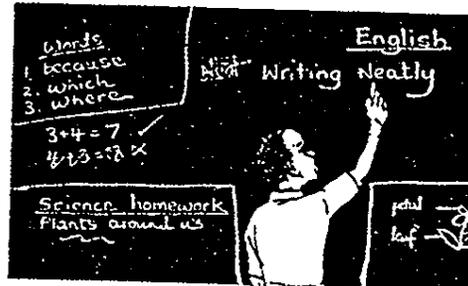


Chalk is a valuable tool in teaching. Our first tip is keep your smaller pieces in a matchbox. This stops unnecessary loss and prevents chalk marking pockets in your clothing!



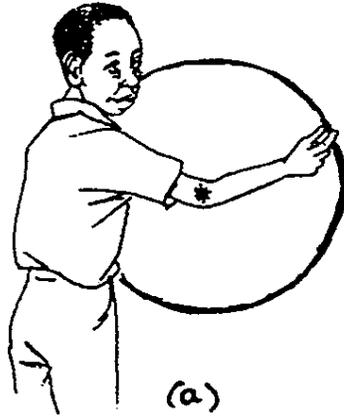
Can you tell us of any other ideas you've discovered about practical and creative use of the chalkboard.

Chalkboard presentation



If your chalkboard work is untidy what sort of example is that to your pupils? Are they allowed to do similar untidy work in their books? Try these ideas. If you have a long board divide it up into two or more areas of similar shape to your pupil's books. Underline headings and important key words or terms. Leave space around diagrams. Put boxes round some board work. Use coloured chalk if you have it.

Circles on the chalkboard

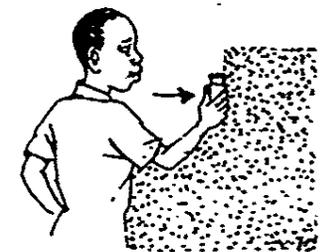


Here are four ways to draw circles on your board:

- Freehand circles can be drawn by first drawing a rough circular shape and gradually tidying it up with rubbing and minor alterations
- Drawing circles from the elbow. Stand close to the board, but facing away from it. Keep your elbow in exactly the same position as you draw
- String. Hold one end of the string at the centre of the circle (by finger, or using a nail)

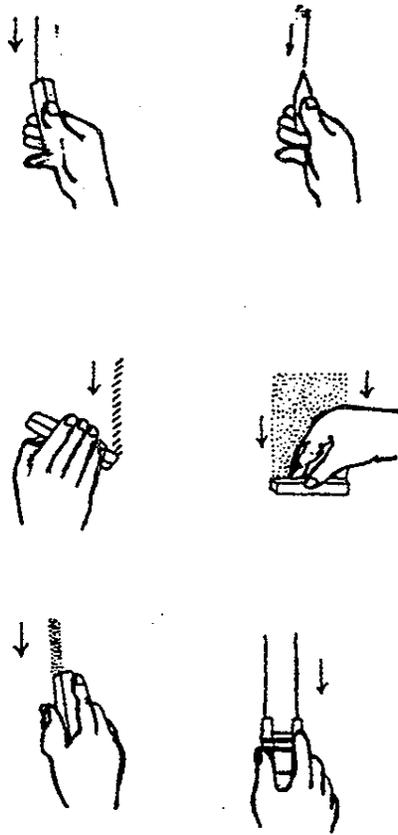
Card or word strip with holes. Put a nail in one end to hold it at the circle centre.

Cleaning the chalkboard



It is very easy to clean the chalkboard in a way that helps you to write straight too. After rubbing in every direction and leaving the board, try taking the excess chalk off by drawing the duster down. Finally, dust the board as shown in the third picture. This leaves straight lines (that only you can see!) across your board. No more sloping writing! Try it and see.

Different types of line



By holding and using chalk in different ways a variety of lines can be produced.

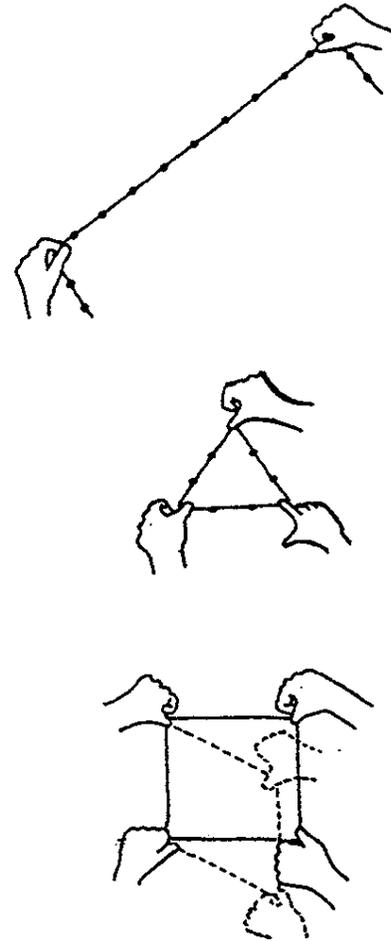
A thin line can be drawn by using a thin edge of a chalk.

Chalk can be sharpened in an ordinary pencil sharpener. This gives a very sharp point for accurate fine line or technical drawing.

Try using the thick edge of chalk for shading (but try not to waste chalk though).

Hold two pieces of chalk together to draw an accurate double line.

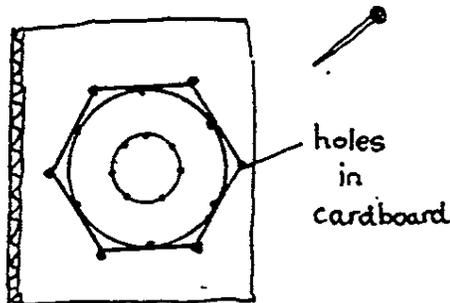
Drawing shapes



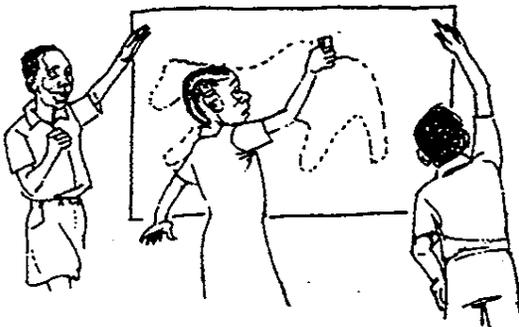
Squares, rectangles and triangles can be produced with knotted string as shown above.

A string of 30 to 40 centimetres can be used. Knot the string at regular intervals of 10 to 20 centimetres. Take your time knotting the string, experience has proved that it is easy to pull a knot tight before it is exactly 10 centimetres from the previous knot!

Chalkboard stencils



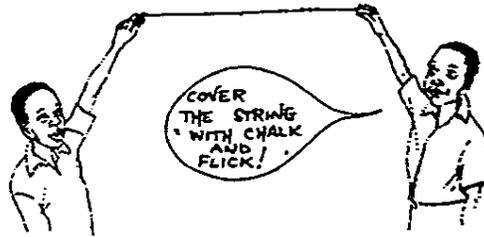
drawing a hexagon not on the board with ease.



For large and small stencils, first draw the outline of your shape accurately to the correct size. Choose an appropriate material such as paper, box cardboard, hardboard, plywood or plastic. Put small guide holes along the lines of your drawing. Hold, stick or pin the stencil against the chalkboard or wall. Dust over the holes with chalk. Remove the stencil and simply "join the dots" to reproduce human body shapes, maps, charts, technical drawings on a large scale.

Student work book templates: smaller versions of your chalkboard templates could be made for reproducing diagrams into pupils' books.

Drawing straight lines



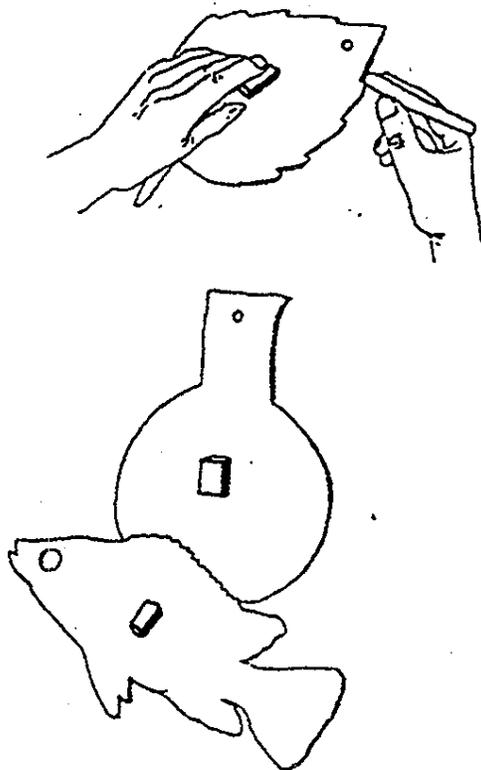
HOLD YOUR ARM IN ONE POSITION AND WALK



Straight lines are easy to draw if you follow these simple tips.

- A long straight piece of wood.
- A chalk-covered piece of string, held and then flicked against the board.
- Walking in a straight line, keeping the chalk at the same level
- Scratch very fine lines onto a board using a nail. After dusting the fine lines fill with chalk. Close to the board they can be seen, but not by your class.
- After washing your board draw straight lines across it. Even after using your board duster the lines will be faintly visible.

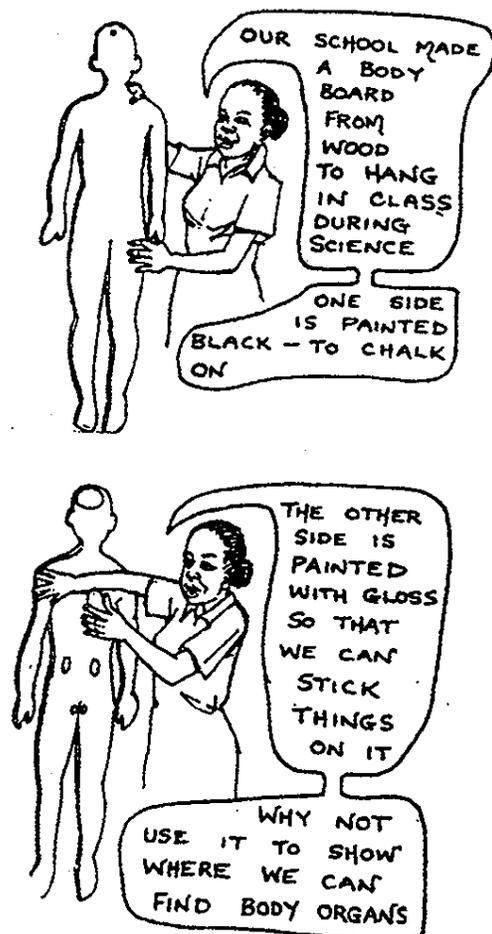
Chalkboard templates



Cut templates from cardboard, plywood, hardboard or thick plastic. Collect basic and elaborate shapes for quick, uniform and accurate reproduction. Put a hole in the templates if they are to be hung up. You may wish to add a small piece of wood or cardboard as a handle.

Why not make templates of animals, countries, body organs, mathematical shapes, scientific equipment. Pre-school and lower primary teachers could collect templates of all the items regularly drawn on the chalkboard.

Reversible body board



- Cut a large template shape of the human body from cardboard, hardboard or plywood. An ideal way to get proportions right is to ask a child to lie down on the board and simply draw around them.
- Paint one side black, so that you can chalk on it. Varnish or paint the other side so that removable paper body organs or bones (with labels) can be stuck on.
- The human body board can also be used as a template to draw accurate, identical human shapes side by side on the chalkboard.

UNIT 10

TALULAR for continuous assessment

Introduction

Effective learning occurs when teachers take responsibility for planning and organizing the content to be learned, assessment instruments and procedures for tracking pupils' progress, remediation activities to address learners' problems experienced during the learning process, and enrichment activities for reinforcement and mastery of what has been taught to achieve success. Also, teachers help pupils to prepare for assessment tasks so that they have a clear understanding of the expectations required and how these can best be achieved. Above all, the teacher's sensitivity to learners' needs is very important. This refers to the ability of the teachers to adapt lessons and modify methods of teaching during delivery, after assessment, by taking into account how a previous lesson was experienced by different learners and how they can foster learners' achievement as they experience the new lesson.

However, it can be argued that effective learning, continuous assessment, remediation and enrichment cannot be accomplished without a broad base of appropriate teaching and learning resources. Education should put great emphasis on skills that would enable the learners to cope with the demands and challenges of everyday life. Skills development requires a lot of practice, hence the need to use a variety of resources for quality teaching and learning, continuous assessment, remediation and enrichment.

In this unit, emphasis is put on the use of talular resources. The attraction of sophisticated conventional teaching and learning resources has caused some teachers to despise basic teaching and learning resources at the expense of conducting effective continuous assessment. Also, because of lack of sufficient practical training many teachers lack the skill of using the basic resources both for teaching or conducting continuous assessment. Focus is, therefore, on talular resources that are available at a low cost or free of any cost.

Objectives

By the end of this unit, you will be able to:

- define continuous assessment
- distinguish between characteristics of continuous assessment and those of once-off assessment
- state the importance of continuous assessment
- describe talular resources for continuous assessment
- make some continuous assessment talular instruments

What is continuous assessment?

Different people have defined continuous assessment in different ways. According to du Plessis (2002) some people refer continuous assessment as teacher grading, sometimes it is referred to as running records, or curriculum based assessment.

Activity 1

Working in groups:

- define continuous assessment
- discuss the distinction between characteristics of continuous assessment and those of once-off assessment

Report your work in a plenary after 15 minutes. Reporting time is 20 minutes.

Feedback

According to du Plessis (2002) continuous assessment is making observations and collecting information periodically to find out what a student knows, understands and can do. Specific tasks are given to the learners based on what has been taught. We observe the learners doing these tasks and make a judgement about how well they are doing. Continuous assessment is ongoing and tells teachers if they need to reteach something, and what exactly the learners need in order to keep on learning.

Characteristics of continuous assessment

Continuous assessment is characterised by the following:

- usually performed by teacher as part of teaching
- ongoing throughout the term or year
- gives immediate feedback on progress to the teacher, learner and parents
- may include both formal and informal assessments
- followed immediately with remediation or enrichment
- may be set by the class teacher

Characteristics of once-off assessment

A terminal test or end of year examination is referred to as an **once-off** assessment and is characterised by the following:

- often final – end of term, year or the primary cycle
- may be used for selection
- usually one test or examination per subject
- usually set externally
- does not provide immediate feedback into learners' progress
- summative, that is, covering what is covered over a long period
- may lead to high rate of failure

Activity 2

Working in groups:

- discuss reasons for using continuous assessment
- describe continuous assessment procedures

Report your work in a plenary after 20 minutes. Reporting time is 20 minutes.

Feedback

The following are some of the reasons that justify the use of continuous assessment as a teaching tool:

- finding out what students know, understand and can do
- confidence in what we say our students know, understand and can do
- provides all learners, as individuals, with opportunities to show what they know
- ensures that all learners have opportunities to succeed in class or in school
- promotes teaching and learning for understanding
- promotes reflective teaching, that is, evaluating one's own teaching strategies for improvement
- helps determine what kind of remediation and enrichment activities to provide, and which learners
- provides learners with immediate feedback into how well they are progressing in their own learning, which motivates them
- lets parents know how their children are progressing
- leads to overall evaluation of curriculum implementation

Procedures or methods used in continuous assessment

These include:

- Teacher questioning and noting progress in understanding
- Observing an activity
- Keeping records of learners' marks and scores on different activities
- Checking, assessing, written work, practical work
- Building up a profile of learners' skills
- Providing immediate feedback to learners on their progress and development
- Providing remediation to learners who have not reached an expected level of performance
- Providing enrichment tasks to those learners who have done well in the continuous assessment for further practice and reinforcement of what they have learned
- Preparing sets of tasks for continuous assessment
- Updating records immediately continuous assessment tasks have been administered

TALULAR resources for continuous assessment

It must be emphasized that teaching and continuous assessment are mutually exclusive. Teaching without continuous assessment is inadequate and continuous assessment without prior teaching is not effective either. Thorough teaching of a topic enhances continuous assessment. If pupils understand what they learn thoroughly, they have no problems with continuous assessment tasks. Likewise, if they do not understand what the teacher has taught, continuous assessment tasks that follow present a lot of problems to them. TALULAR can contribute to effective teaching before continuous assessment, production of valid continuous assessment instruments, construction and administration of remediation tasks and enrichment tasks.

Activity 3

Working in groups

- classify talular resources according to continuous assessment categories of the Malawi

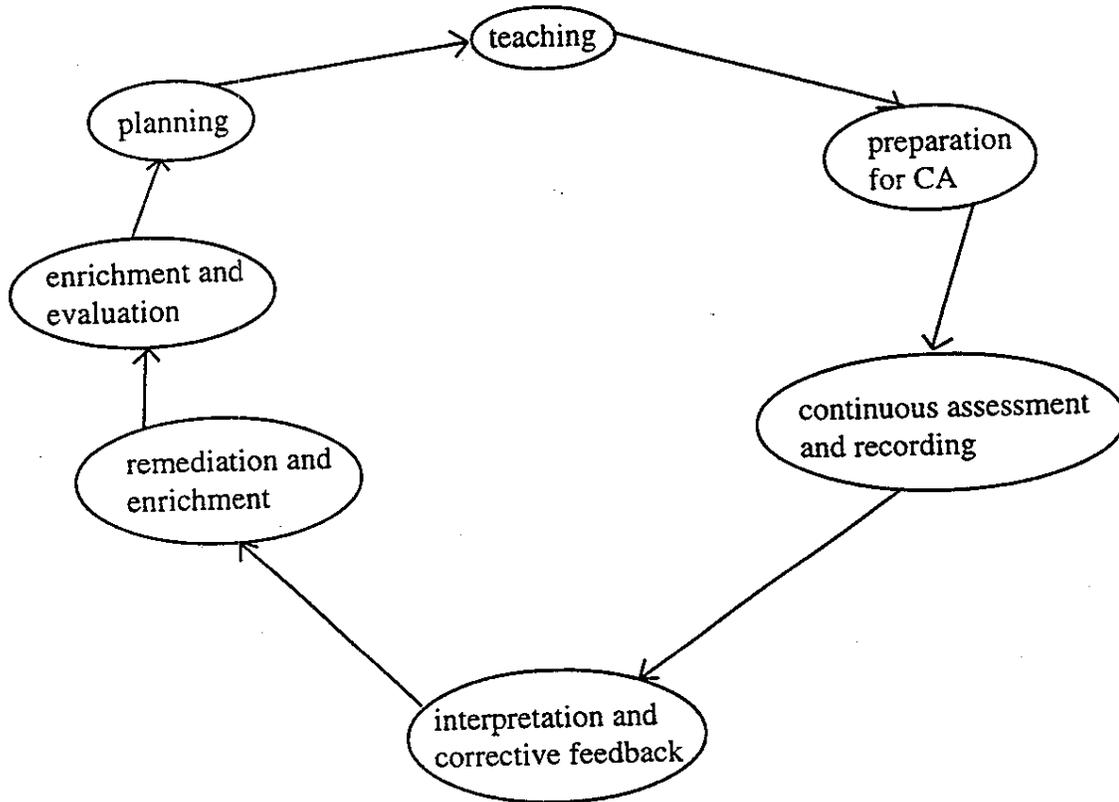
Feasibility Study

- state reasons why some pupils may not do well in continuous assessment

Report your work in a plenary after 20 minutes. Reporting time is 20 minutes

Feedback

As said earlier, establishment of a talular bank ensures that you have a broad resource base for use during teaching, the continuous assessment process, remediation and enrichment. You should see these areas as interrelated and the following map illustrates the link between them:



The map may be interpreted as follows:

- Planning takes into account information gathering for the topic you intend to teach, organizing it in a form of a lesson plan, fetching all the relevant **TALULAR** and ensuring that these match with particular steps of the lesson plan in which they will be used according to the teaching strategies you select.
- Teaching a given topic after thorough planning promotes effective pupil understanding of the topic and partly prepares learners for any subsequent continuous assessment.
- Preparation for continuous assessment ensures that you make learners aware of what is expected of them and getting ready all the relevant instruments needed. Besides communicating expectations to learners and getting instruments ready, make reference to previous performance, performance by other pupils for contrast and encouragement, as well as rewarding those who have done very well before. In addition, prepare the venue for continuous assessment by making a desk and chairs available for comfortable sitting. Also, work cards or job cards, that is, assignment cards for the rest of the class should be ready for use while you are assessing one student.

- The continuous assessment process comprises going through assessment tasks with individual learners and noting down or recording scores in your record book immediately a score is determined. Late entry or updating may lead to loss of scores.
- Interpretation and corrective feedback comprise:
 - identifying a student's learning problems
 - identifying students that require remediation and those for enrichment
 - planning feedback to stakeholders

Corrective feedback to learners from you should tell the learners how to improve, show the learner his or her own progress, make him or her think about the quality of his or her work, encourage all learners to stay engaged in learning, make learners develop a positive feeling about themselves by supporting those who are falling behind and continue challenging those who are moving ahead with extra work.

- Remediation refers to the work you give to those learners who fall behind in continuous assessment for extra support. This ensures that all learners achieve success in school. As a provider of remediation you should realise that all learners can succeed if given the right guidance and additional help. Also, you should recognise the fact that not all learners learn in the same way or at the same speed. Use alternative methods for helping those who are falling behind gain knowledge and skills effectively. Enrichment means providing more opportunities for further practice and mastery of knowledge and skills. While those learners who fall behind are given remediation exercises, those who are doing well are given enrichment exercises to make them continue to work at their own pace.
- Evaluation is an assessment of the continuous assessment process with reference to the instruments used, interpretation of results, remediation and enrichment strategies and the overall effectiveness of continuous assessment. Enrichment at this stage includes further practice for both the fast learners and those who are falling behind, after their remediation, before planning for the next teaching session. Next planning takes into account what aspects of the topic are difficult for the learners, which learners are getting on well with the topic and skill, whether the teaching was effective in making learners learn and which TALULAR would best suit the strategies selected for the next lesson.

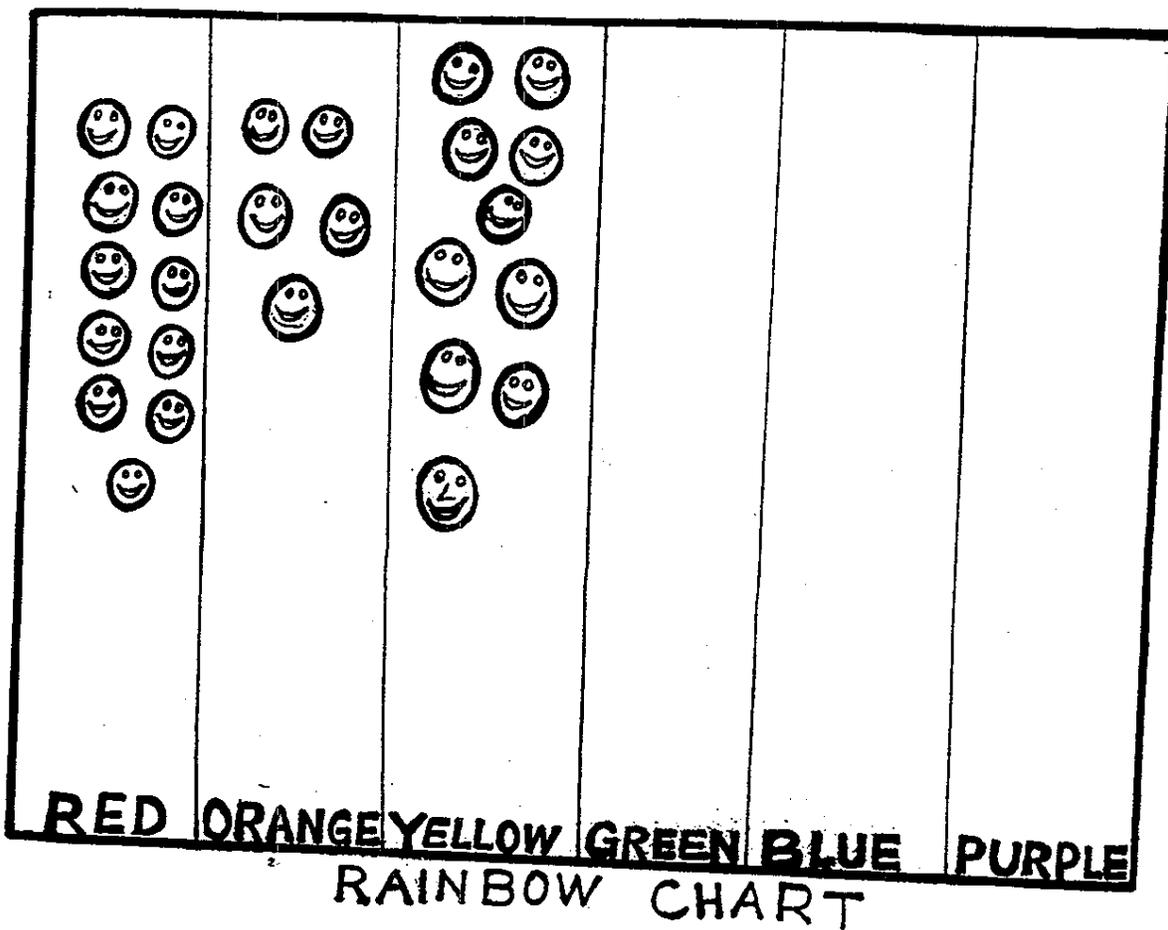
Prototype TALULAR for the Malawi Continuous Assessment Feasibility Study

Rainbow chart

This is a chart that shows academic levels for continuous assessment. It has six columns: Red, Orange, Yellow, Green, Blue and Purple. Tasks in the Red level are the easiest and those in Purple are relatively the most advanced. Red comes first on the chart and Purple comes last. The six levels are based on tasks that are constructed from the topics in a curriculum for a class. A pupil who does well in the Purple level is considered ready to proceed to the next class. The same Rainbow chart is used for Mathematics, English and Chichewa/Chinyanja results. However, it is possible to have a separate Rainbow chart for each of these subjects.

Materials

- chart paper or cardboard
- paint – primary colours such as red, yellow and blue
- paint brushes



HOW DID I DO TODAY?

NAME	SUBJECT	THEME
TAMALA PHIRI UPILE MAKISONI	ENGLISH  	Answering Questions  

SELF-ASSESSMENT CHART

Handwritten mark

- pencil, pen or marker pen
- pair of scissors or razor blade

Method

- Divide the chart or cardboard into six columns.
 - Paint the columns, Red, Orange, Yellow, Green, Blue and Purple, respectively. Orange is produced by combining Red and Yellow; Green is obtained by combining Yellow and Blue and Purple is obtained by combining Red and Blue.
 - Write the words Red, Orange, Yellow, Green, Blue and Purple in the appropriate columns at the bottom to indicate the academic levels on the chart.
 - Cut out circular shapes from cardboard or a chart.
 - Draw happy faces on the shapes:
- Happy faces may be drawn on the piece of plastic obtained from bottle-tops.
 - Display the faces for all the pupils in the Red level. After the first continuous assessment, move the faces of those learners who have done well to the Orange level and the faces of those learners who are falling behind remain in Red. After remediation, more faces are moved to the Orange level. After the continuous assessment in Orange level, those who have done well go to Yellow and those who are falling behind remain in Orange, and so on.

Please note that the columns on the Rainbow chart are arranged horizontally and learners' faces move from left to right or Red to Purple arranged horizontally. It is equally appropriate to create a **colour ladder** with six rungs, Red at the base, Orange above it, Yellow next, and Purple makes the last rung of the colour ladder. In this arrangement, the learners' faces are moved vertically or in a bottom-up manner. Also, instead of painting the rungs strips of paper already coloured Red, Orange, Yellow, Green, Blue and Purple can be pasted to cardboard to create a colour ladder for displaying the faces.

Self-assessment chart

A self-assessment chart is a chart on which learners display their own faces according to whether or not they are happy about how they have done in response to the question, "How did I do today?" If a learner has a happy impression of what he or she has done, he or she chooses a face and displays it. A happy face represents a happy impression and a sad face represents a sad impression. The teacher's role is simply to find out from the learner why s/he has selected the face that s/he has displayed, happy or sad. Remember faces to be displayed on the self-assessment chart are selected by the learners themselves according to how they feel about their performance on the day of self-assessment.

Materials

- cardboard or chart paper
- pencils, pens or marker pens
- a pair of scissors or razor blade
- string
- a knife
- a reed or bamboo
- gum or sellotape

Method

- Prepare a chart preferably 120 cm by 80 cm.
- Draw lines to create two columns. The first column is labelled "NAME" because this is where names of pupils are displayed and the second column is reserved for displaying faces. The label for this column changes with the theme of the day. For example, "Working with others", "Relationship between me and others", or subject names such as Mathematics, English, Chichewa and so on.
- Write the heading "How did I do today?" at the top of the chart.
- Cut pieces of cardboard or strips of paper from another chart or cardboard, 36 cm by 6 cm.
- Write the names of all the pupils in your class on the pieces of cardboard or strips of paper.
- Write the subject names and the proposed themes on cards or strips of paper.
- Cut out circular pieces from a cardboard.
- Draw smiling faces and sad faces on the circular pieces
- Support the chart or cardboard with a frame by tying pieces of a split reed or bamboo along the edges with the string.
- Tie another string for hanging on the top part of the frame.
- Put a piece of gum or sellotape on the back of each card to be displayed on the self-assessment chart. This includes the faces.

Please note that one self-assessment chart may not accommodate all the names and their faces at once. This is why learners' names are written on cards so that self-assessment is done in turns. You may display, for example, ten names at a time and ask these learners to do their self-assessment. If there is still more time at the end of their self-assessment, remove the cards and display another set of name cards for another session of self-assessment. Another reason for writing names on cards instead of writing them directly on the self-assessment chart, is to ensure that you use the same chart for different classes you may be responsible for.

The self assessment chart provides the learners with opportunities to consolidate their performance and learn to become responsible for their own learning. You should become interested in what they do during self-assessment to motivate them. Self-assessment should be done regularly so that learners attach some importance to it.

Job card basket or box

This is a basket or box in which you put cards that bear various assignments for learners to work out on their own. During assessment of a pupil, the rest of the pupils go to the job card basket or box, pick out a card and begin working on the assignment or task on this card. This is a management technique that helps to maintain discipline while continuous assessment is in progress. This is a better way of encouraging learners to use their time profitably while they wait for their turn.

Materials

- empty boxes of chalk
- small cartons
- cardboard
- a basket
- a pen or marker pen
- a pair of scissors

- envelopes
- plastic bags
- paper bags

Method

- Cut pieces of cardboard to make cards 15 cm by 10 cm.
- Write your tasks on the cards. These are called job cards.
- Keep your job cards in a chalk box, basket, envelopes, plastic bags or paper bags.
- You may keep the job cards in a small carton.
- You may tie several chalk boxes together to create one box with several compartments.
- Keep changing the contents of the job card box to ensure variety and maintain learners' interest.
- You may cover the surface of the chalk boxes or carton with pieces of paper and porridge to make them look attractive.
- You should collect learners' work at the end of the lesson, check it and give feedback just as you do with homework, to motivate the learners.
- Ask group leaders to help supervise working peers for effective work.

A job card tree

In a situation whereby a teacher is interested in creating variety for learners, there is not only one way of doing things. A job card tree is a branch of a tree where the teacher hangs cards that bear some tasks for the learners to do during formal continuous assessment. While the teacher is assessing a pupil, the rest of the learners go to the job card tree and select a card with a task to work on, just as they do with a job card basket or box.

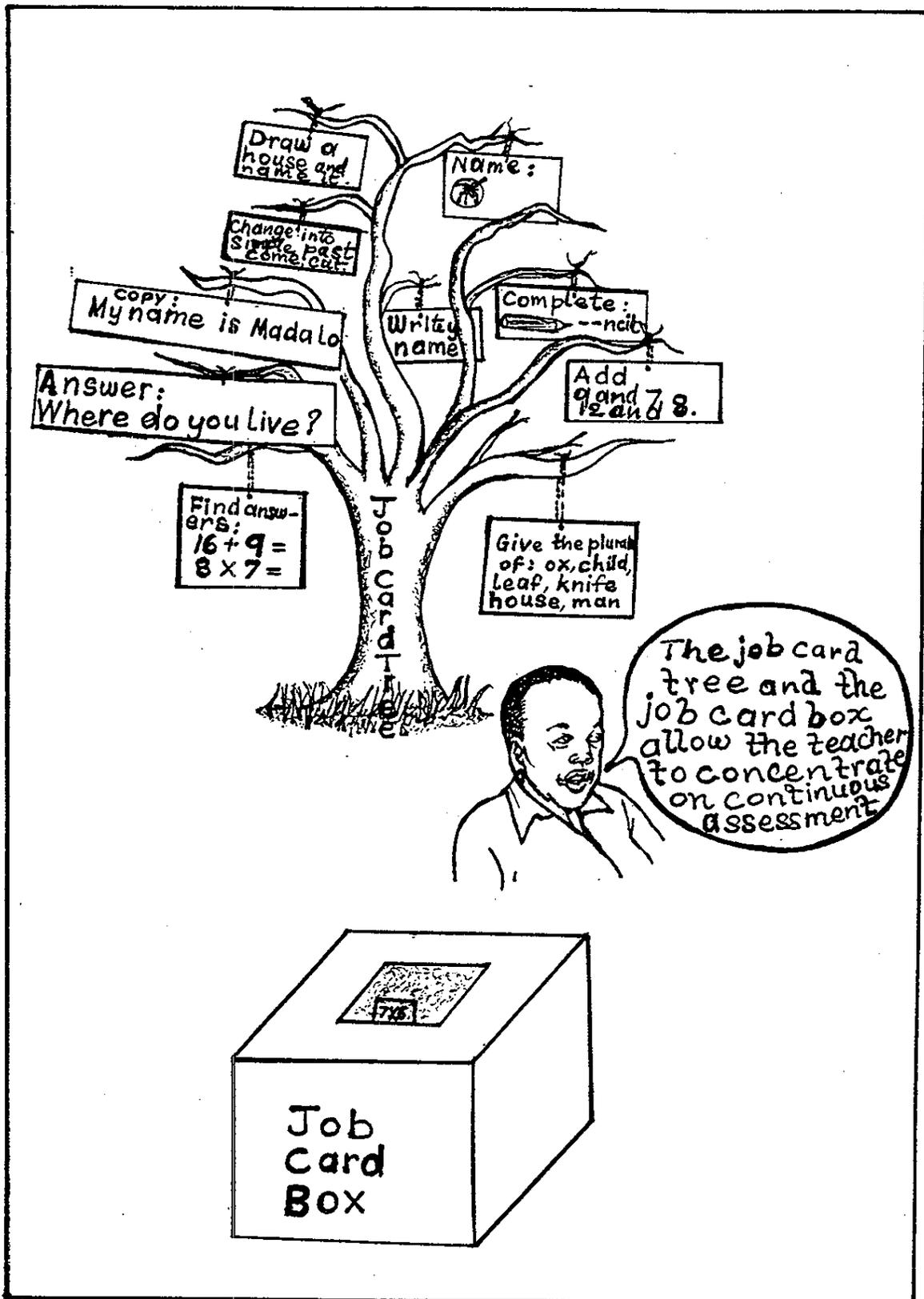
Materials

- cardboard (biscuit boxes, surf boxes, envelopes may also be used)
- pens, or marker pens
- a small tree branch
- a pair of scissors
- a knife or an axe
- a tin
- sand
- a needle
- thread or string

Method

- Cut the cardboard into small cards 15 cm by 10 cm.
- Write designed tasks on the cards to create job cards.
- Tie pieces of thread or string with the needle, for hanging the cards on the job card tree.
- Cut a branch that suits your purpose.
- Fill a tin with some sand or small stones.
- Fit the main stem into the sand, the tin acts as a stand for the job card tree.
- Display the job cards on the job card tree.
- Place the job card tree at the learning centre apart from the other displays.

305



Mathematics assessment materials

- Maths cards for the red level
- Maths cards for the orange level
- Maths cards for the yellow level
- Maths cards for the green level
- Maths cards for the blue level
- Maths cards for the purple level
- counters (bottle tops, stones, beans, buttons, seed pods, more than 21)
- sticks of different lengths
- 6 one kwacha coins
- 5 ten tambala coins
- 1 fifty tambala coin
- 1 twenty tambala coin
- 5 five tambala coins
- number cards for 3, 4, 5, 6

N.B. 1 tambala is the unit for the Malawi Currency. 100 tambala make 1 kwacha.

Chichewa assessment materials

- 5 vowel cards for the red level
- 20 syllable cards for the red level
- 5 vowel cards for the orange level
- 20 syllable cards for the orange level
- 20 syllable cards for the yellow level
- 20 word cards for the yellow level
- 1 standard or grade 2 story for the green level
- 5 comprehension questions for the green level
- 1 listening story for the green level
- 5 comprehension questions from the listening story for the green level
- 1 standard or grade 3 reading story for the blue level
- 5 comprehension questions for the blue level
- 1 listening story for the blue level
- 5 comprehension questions from the listening story for the blue level
- 1 standard 3 reading story for the purple level
- 5 comprehension questions for the purple level
- 1 listening story for the purple level
- 5 comprehension questions from the story for the purple level

English assessment materials

- alphabet cards for the red level
- 20 word cards for the red level
- 20 word cards for the orange level
- 20 word cards for the yellow level
- 3 sentence cards or boards for the yellow level
- 20 word cards for the green level
- 1 standard or grade 2 story for the green level
- 5 comprehension questions for the green level

- 20 word cards for the blue level
- 1 standard 3 story for the blue level
- 12 comprehension questions for the blue level
- 20 word cards for the purple level
- 1 standard 3 story for the purple level
- 5 comprehension questions for the purple level

Other support talular items

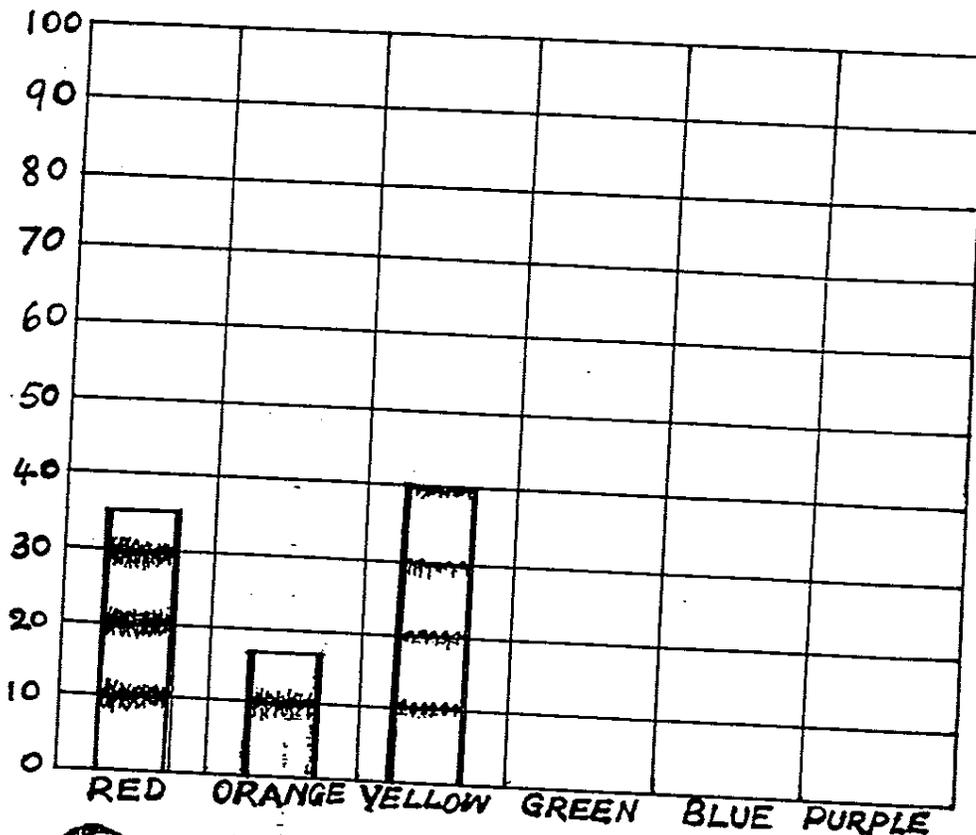
- vowel chart
- alphabet grid or chart (aA to zZ)
- number grid or chart (1 to 100)
- vocabulary wheel or reading clock
- sentence maker
- counters or an abacus
- number circle
- clock face
- multiplication tables
- reading boards
- number strip
- display mat
- flannel board
- calendar
- reading match-boxes
- maths match-boxes
- word or sentence strips
- newspaper cuttings to promote reading
- place value box or number tray

Please note that the above talular resources under “Other support talular items” have been highlighted in the foregoing sections of the manual as part of developing numeracy and literacy. They are very useful during actual teaching, remediation and enrichment strategies to ensure participatory or child-centred learning.

Alternative talular resources

In order to sustain continuous assessment you should make sure you diversify your prototype talular resources. Diversification of talular resources also ensures variety both in teaching and continuous assessment. In order to diversify your talular resources, know alternatives to the talular resources you normally use in a particular situation or task. For example:

- **counters** - bottle-tops, bottles, tins, tin lids, stones, coins, buttons, seeds, seed pods, maize cob cores, sticks, pieces of a rubber band or a rope, or a rubber band tied into knots and letting learners count the knots. You can also ask a pupil to tie the knots himself or herself to find out if s/he understands the value of a given number. For instance, you can say, “Can you tie five knots for me?” If the learner can tie five knots it shows s/he understands the value of five.



We can use reedmat pieces, bamboo pieces, sticks, grass, and bottle tops or seeds pasted to interpret results of continuous assessment according to the levels.

A reedmat talular graph

How much are these?

Continuous assessment, one of the best ways to know where your students stand!

- **cardboard** - pieces of a carton, old calendars, posters, biscuit boxes, cornflakes boxes, milk boxes, surf boxes, mahewu cartons and shoe boxes. You can use these to make reading boards, number grids, word cards and number cards.
- **chart paper** - Chart paper written on one side, A4 size sheets written on one side, wrapping paper, sugar paper, plastic maize flour bags, cement bags, exercise book covers, exercise book sheets, envelopes and off-cuts from a printery. You can use these to make reading cards, number cards, reading charts, number charts, and word picture matching charts.
- **place value box or number tray** - pieces of a carton, chalk boxes for the ones, tens, hundreds, respectively; tins, jars, cups, plastic bottles cut at the top appropriately the size of a tin, and a bao-board.
- **display board** - a piece of a carton, soft board, sheet of plastic, reed mat, palm leaves mat, bark cloth, ordinary cloth, a sack, an old blanket and old curtains.

Activity 4

Working in groups:

- go through the examples of talular resources for continuous assessment to internalize them.
 - give reasons why some learners may not do well in continuous assessment.
- Report your work in a plenary after 20 minutes. Reporting time is 20 minutes.

Feedback

There are many examples we can give of various ways of promoting diversity of talular resources in your classroom. However, suffice it to say that it is your commitment, experience, expertise and creativity that will enhance your efforts in bring about diversity.

Some learners may not do well in continuous assessment

There are several reasons why some learners may not do well in continuous assessment. These include:

- Rushing learners into continuous assessment. You want to conduct continuous assessment as quickly as possible to avoid unnecessary delays. However, some of them will not have learned the skills required to do the task. They may still require further information on the topic before continuous assessment.
- Teaching or instruction may have been inadequate or deficient.
- Lack of motivation on the part of the learners may be the cause. This may be caused by lack of learner preparation. The need to prepare learners for the assessment and the learners on their own need to prepare for assessment.
- Lack of interaction between you the teacher, and the learners as individuals to determine whether or not they understand a particular concept. Also, listening to learners' responses carefully during a lesson would help you review the work for errors or misconceptions.

- Poor background knowledge from a previous class. Normally work in the curriculum is graded so that the higher learners go the more complex the work becomes. Learners need prerequisite knowledge in order to cope with a new concept. You should make backward reference to prepare the learners concerned appropriately.
- Physical, social and mental problems may affect learners negatively. You need to diagnose the problems in order to apply an appropriate solution.
- Lack of support from home. If parents are not sensitized about their role in continuous assessment, they end up engaging their children in chores that deprive them of the time for practising and revising school work.
- Remediation subsequent to continuous assessment may not have been thorough so that learners still have a weak foundation for the next continuous assessment.

It should be emphasized here that you need to think of curriculum learning targets and ensure that you cover these adequately and thoroughly before engaging learners in continuous assessment. Remediation should take into account learners weaknesses to prepare them for the next assessment level. Both fast learners and slow learners need enrichment activities for them to master the work.

Building teacher competence for continuous assessment

Any strategies for continuous assessment are equally as important as teachers' ability to use the strategies competently. It is therefore appropriate that those engaged in continuous assessment must consider methods of preparing teachers for it through training and inservice education.

Activity 5

Working in groups:

- discuss various ways of building teacher competence for continuous assessment
- come up with guidelines about how you can harmonize continuous assessment that goes on in your school system.

Report your work in a plenary after 20 minutes. Reporting time is 20 minutes.

Feedback

The following teacher competence models in continuous assessment should be developed:

- Understanding the importance of assessing curriculum learning targets by embedding continuous assessment in the teaching and learning process.
- Understanding how to match alternative assessment methods with the appropriate curriculum targets.
- Competence in creating their own assessment tasks.
- Competence in evaluating and grading students including how to weigh and combine results from several assessments conducted over the term or year.

- Competence in developing and using talular resources for teaching, continuous assessment, remediation and enrichment.
- Competence in giving feedback to learners, which leads them to identify what they should do next to improve.

The following are some of the guidelines that may assist you in harmonizing continuous assessment carried out by several teachers in various classes of your school system:

- There should be a school policy on continuous assessment advising every teacher to regard continuous assessment as an integral part of the curriculum, and setting a standard.
- Continuous assessment should be done as a collective responsibility with teachers collaborating in their activities. In particular, teachers should work together in formulating continuous assessment tasks.
- If teachers work as individuals in coming up with continuous assessment tasks, there should be a way of standardizing these tasks through regular meetings to ensure validity.
- Conduct school-based inservice courses to share experiences in continuous assessment, and to review and reflect on pupils' performance and progress.
- Share talular resources from the talular bank to boost continuous assessment techniques being used.
- Discuss how continuous assessment results may contribute to the overall evaluation of learners' performance when promoting them to the next class.
- Discuss any challenges such as large classes, pupil absenteeism, or inconsistent attendance of learners, poor or little community support, transfers to other schools on the part of students as well as teachers, inadequate textbooks, and so on.

Summary

First, educators recognize that good teaching and learning requires a constant stream of information about student progress, or about possible reasons for their lagging or falling behind. The same information is useful in considering teacher performance in relation to learner achievement. Secondly, the school policy to be formulated in the school in connection with continuous assessment should encompass components of the continuous assessment sometimes referred to as academic levels, use of end of term tests, use of end of year tests, types of physical records to be kept regarding continuous assessment, types and contents of parent reports, combining continuous assessment marks with certification examination results, building teacher competence, and building public confidence in using continuous assessment for decision making purposes.

According to the continuous assessment Feasibility Study conducted in Ntcheu district of the Central Region of Malawi, review of the procedures and learner gains indicates that continuous assessment procedures have great potential for improving teaching and learning because they focus on pupils' acquisition of specific curriculum learning targets. This focus is highly contributing to the goal of universal basic education. This potential is likely to be realised effectively if all the circumstances around continuous assessment are identified and systematically addressed. These include teacher commitment and competence, learner commitment, adequacy of talular and other resources, conditions that are conducive to teaching and learning, teacher support in terms of resources and inservice education, just to mention a few. If such issues are not identified and addressed, any educational benefits continuous assessment might contribute are unlikely to be realized.

UNIT 11

TALULAR for teaching about HIV/AIDS

Introduction

HIV/AIDS is responsible for the suffering, misery and torturous deaths of many of our relatives and friends. So far HIV/AIDS still remains a threat to the human race as long as there is no cure for it. HIV/Aids education is infused in the school curriculum so that teachers and learners are provided with knowledge, skills and attitudes for them to understand causes, effects and prevention of the disease. More pupils are aware of HIV/AIDS. However, simply being aware of the disease does little to change behaviour. There is need for laying emphasis on the problem that there is a deadly virus which is killing people, the need to contain the virus, what needs to be done, and who is responsible.

Teachers need to work in collaboration with the health sector, Churches/Mosques, the HIV/AIDS council or Commission and other non-governmental organisations to educate the youth and the public on the precautions to be taken against the disease. Among the precautions, teachers ought to stress the use of condoms/rubbers, abstinence from casual sex, keeping one partner and piety so that God protects us from complacency which is the main problem behind slow behavioural change as it gives people a false sense of security.

Like the teaching of any topic or subject, the teaching of HIV/AIDS should be done systematically. This means planning for teaching by writing schemes of work, lesson plans, designing and developing relevant talular resources should be done thoroughly. This unit provides suggestions on what TALULAR you can use for teaching about HIV/AIDS to enhance classroom interaction and effective learning so that various institutions can help avert the pandemic as well as mitigate its impacts.

Objectives

By the end of this unit, you will be able to:

- identify talular resources relevant to teaching about HIV/AIDS
- design talular resources for production
- produce talular resources for teaching HIV/AIDS
- use talular resources for teaching HIV/AIDS
- state venues in the school where HIV/AIDS can be taught

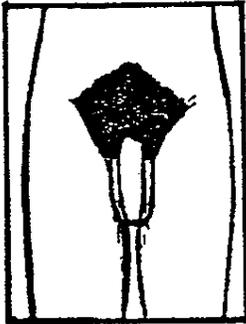
Prototype TALULAR for teaching about HIV/AIDS

HIV/AIDS is no longer a myth, it has already received a lot of publicity, and it is expected that students should be protected from HIV/AIDS. HIV/AIDS still remains one of the most serious challenges facing the human race today. In the absence of an effective vaccine or cure for this disease, education on behavioural change to minimise exposure to it, is the most important means of reducing its impact.

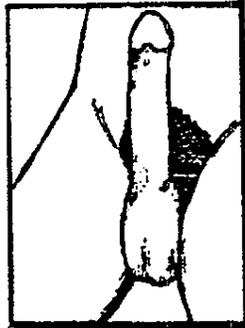
Just as it is important for you to enrich your academic background through continual professional development in the various subjects you teach, it is equally important that you continue to build up your knowledge about HIV/AIDS in order to teach learners about HIV/AIDS effectively. It is also essential that you should plan well for the teaching of topics on HIV/AIDS. Most

HOW TO USE A MALE CONDOM

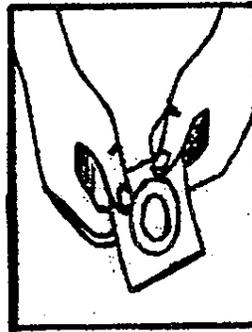
Diagram on how to use a male condom



1. Do not put on a Condom before achieving an erection



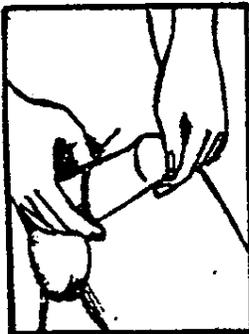
2. Do not engage in genital contacts with your partner before putting on a condom. Put on a condom when the penis is fully erect.



3. Be extra careful when peeling the condom packet in order not to tear the condom as well. If the condom is torn discard it.



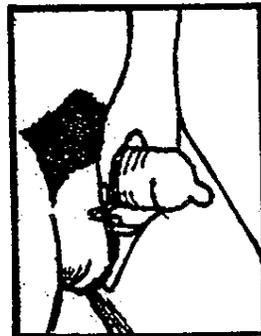
4. How to put on a Condom
Make sure that The ring of the Condom is facing outward for it to be possible to unroll. Hold to tip of the Condom with two fingers so that the air in it escapes.



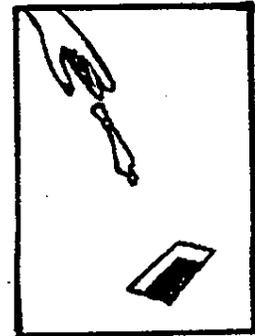
5. For those who are uncircumcised, pull back the foreskin before putting on the Condom. Still holding the tip with the two fingers, roll down the Condom gently using the other hand until it reaches the base of the penis.



6. If a Condom is put on correctly, it should look like the figure above.

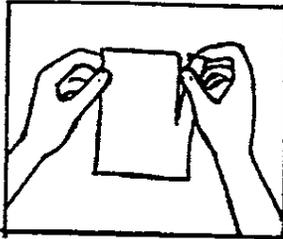


7. After intercourse Pull out the penis gently and before it is flaccid while holding the base of the penis together with the condom, so that semen does not spill out.



8. Throw away in a pit latrine. Do not flush. Do Not Reuse

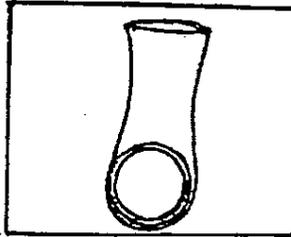
HOW TO USE A FEMALE CONDOM



1. To open the packet

Locate arrow at tear notch on upper right hand corner and tear open.

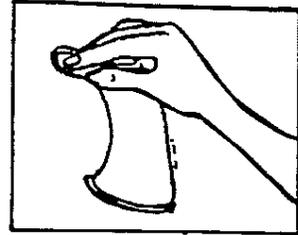
Rub the outside of the pouch together to be sure the lubricant is evenly spread inside the pouch from the bottom of the top.



2. To insert the Condom

Find a comfortable position. Try standing with one foot on a chair, or sit with knees apart, or squat down.

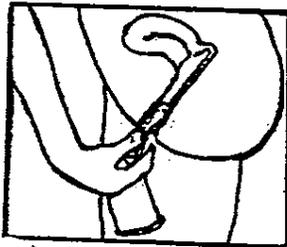
Be sure the inner ring is at the bottom, closed-end of the pouch.



3.

Hold the pouch with the open end hanging down. While holding the outside of the pouch, squeeze the inner ring with your thumb and middle finger.

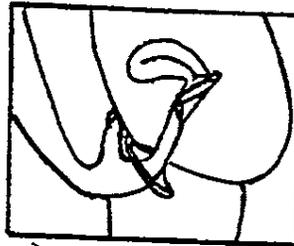
Place your index finger and keep squeezing the inner ring.



4.

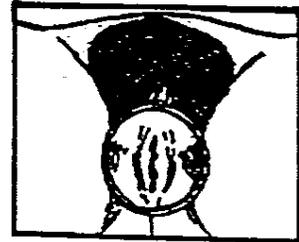
Still squeezing the ring with your three fingers, spread the lips (Labia) with your other hand, and insert the squeezed Condom.

Take your time. If the Condom is slippery to insert, let it go and start over.



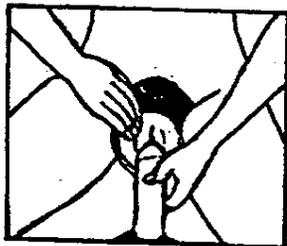
5.

Now push the inner ring and the pouch the rest of the way up into the vagina with your index finger, check to be sure the inner ring is up just past the pubic bone. Make sure the condom is inserted straight and not twisted inside the vagina.



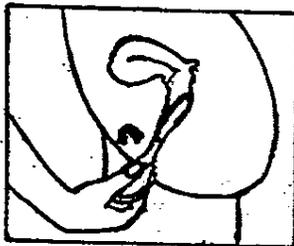
6.

It is important that the outside ring lies against the outer lips (Labia)



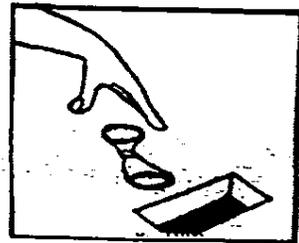
Intercourse

Until your partner becomes comfortable using the Condom, use your hand to guide the penis into the vagina.



9.

To take out the Condom, squeeze and twist the outer ring to keep the sperm inside the pouch. Pull out gently.



Throw away the condom in a pit latrine. Do not flush. Do Not Reuse.

importantly, you should be able to identify talular resources in support of the various strategies you devise.

Activity 1

Working in groups:

- make a list of any resources from the school environment that you can use for teaching topics on HIV/AIDS
- briefly describe situations in which the talular you list can be used

Report your work in a plenary after 20 minutes. Reporting time is 15 minutes.

Feedback

You should ensure that you have adequate and appropriate teaching and learning resources when you begin to prepare your lesson. This will very much depend on your ability to identify relevant teaching and learning resources the school environment and the various situations in which particular teaching and learning resources will be used. The following list indicates various teaching and learning resources you can use when teaching topics on HIV/AIDS.

A condom or rubber

- To demonstrate how men and women would protect themselves against HIV/AIDS and other sexually transmitted infections (STI).
- To demonstrate other uses of the condom such as magnification and teaching about properties of air.

Water

- To demonstrate how the condom or rubber protects both men and women.
- To demonstrate whether or not a certain brand of the condom is porous.
- To dispel the fear that a condom is porous and therefore unsafe to use. This fear emanates from an overgeneralisation.
- To demonstrate magnification with the condom by filling it with water.

A maize cob core

- To demonstrate how to wear a condom or rubber.
- To demonstrate how to take off the condom after use. Alternatives to the maize cob core are bottles, candles, sticks, rods and fingers.

Newspapers or magazines

- To read about HIV/AIDS and its impact.
- To cut out articles or stories on HIV/AIDS for the HIV/AIDS Bulletin Board.

HIV/AIDS bulletin board

- To display cutouts from newspapers and magazines.
- To display fliers, that is, printed messages on small pieces of paper.
- To display stories, poems, and pieces of advice. The bulletin board was first mentioned under literacy development, but in order to enhance awareness of HIV/AIDS, you are advised to have a separate bulletin board and display articles exclusively on HIV/AIDS.

A display tree

- To display cutouts from newspapers and magazines with HIV/AIDS messages or information on HIV/AIDS.
- To display messages on HIV/AIDS written by the teacher or the learners.
- To create a context for reading and writing.

A chart

- To convey messages on HIV/AIDS.
- To illustrate the impact of the disease with a graph.
- To create a context for reading.

A poster

This is a printed chart with pictures and messages.

- A poster may have a picture that portrays an image of risky behaviour, for example, sexual abuse or sexual harassment or promiscuity without protecting oneself with a condom.
- A poster may also have an illustration that portrays an image of abstinence. For example, a poster showing university graduates, in the primary school gives the impression that they have succeeded in their school life, although other factors apart from abstinence and perseverance may have contributed to their success.
- A poster may also carry an illustration that depicts suffering caused by the disease, different ways in which HIV/AIDS is transmitted or spread.

A window of hope

This is a box like the cinema box mentioned earlier, that carries messages on HIV/AIDS on a long strip of paper fitted into the box with two sticks, one attached at either end of the strip and used as rollers. The messages are written on separate parts along the strip of paper in such a way that the window only shows one message at a time. It is called a "Window of Hope" because it is assumed that if those who read the messages from the window abided by them, they would prevent themselves from contracting HIV/AIDS and they would save their lives. It is used in the following situations:

- To instil moral lessons in the minds of the learners through proverbs, slogans, instructions and other messages on HIV/AIDS.
- To create a context for discussion on HIV/AIDS and reading about HIV/AIDS during literacy development.
- To motivate the learners as they become curious about what comes next at the window.

The cinema box

The cinema box also known as the diorama was first introduced under literacy development. The Ministry of Health and the AIDS Council supply posters on health issues including how to contain HIV/AIDS. Make a film for the cinema box by joining several posters with porridge to make a continuous piece of paper. It is used in the following situations:

- To create a context for discussion on HIV/AIDS.
- To motivate the learners and attract their attention.
- To tell stories about the impact of HIV/AIDS.

Plastic overlays

Sheets of plastic carrying separate information to avoid overcrowding, but connected with the same topic or theme. They are used in the following situations:

- To define the acronym "AIDS"
- To create a context for discussion and reading
- To demonstrate use of a tabular resource that is commonly used for teaching other subjects such Creative Arts, Geography maps and word formation in language teaching.

Display boards and pictures

Various types of display boards were discussed under display techniques such as plastic sheets, cardboard, flannel board and the mat. These are useful for displaying pictures and articles on HIV/AIDS:

- To increase awareness.
- To create a context for discussion on HIV/AIDS
- To create a context for reading and writing about HIV/AIDS as part of literacy development.

Songs and dances

Normally songs are used as part of the entereducate, or edutainment or infotainment strategy. As said elsewhere this is a teaching strategy that combines entertainment and passing information or messages. It is ideal for teaching about HIV/AIDS because the idea is to capture listeners' interest first in readiness for passing messages:

- To arouse interest of the audience.
- To pass information in an interesting way.
- To enhance listeners' memory.

Poems

Poems are very powerful resources for transmitting HIV/AIDS messages. They are used in the following situations:

- To entertain the audience while disseminating messages on HIV/AIDS.
- To express one's feelings while sympathizing with those who are suffering from it.
- To pray to God so that He protects humanity from complacency which gives a false sense of security.
- To warn those who do not seem to fear the disease.
- To integrate work on HIV/AIDS with numeracy development.

Saving life is the real priority

Life was sweetest in my primes,
 Now it is a wretched life to face,
 As I lie so miserable and wan;
 Surely, on borrowed time I now live.

HIV positive is the language of the day,
 Acquired immune deficiency syndrome,
 A killer and an incurable disease;
 Wasting away is its obvious symptom.

I used to enjoy looking into my glass,
 But strangely now I detest the act,
 Lest I should view my wasting muscles
 And a curse in a dying human.

Fivetoos is that notorious place;
 Never sounded notorious in my past,
 My mind was haunted day and night,
 Come here, come and enjoy life.

At Fivetoos attractive prostitutes did serve,
 Though no shoes did they ever know;
 Danced with grace and skill on their toes,
 So gave rise to Fivetoos the trade name.

Those that are free of HIV/AIDS,
 Please choose the right path and be wise,
 Risky behaviour leads into the devouring grave,
 Beware of death enticing you with beauties.

My heart has grown very fearful,
 As life is on the margin of survival;
 The slightest wind shakes my fragile frame,
 I can only wait for my endless rest.

Gibson H. Zembeni

Kuteteza moyo ndicho chinthu choyambirira (A translation to 'Saving life is the real priority)

Moyo umatsekemera ndiri wam'ng'ono,
Tsopano n'kaona, moyo ndi wozunza;
Ndikungokhala chogona kuvutika ndiponso wofoka,
Ndithudi, moyo wanga ngwamphindi chabe.

"Ali ndi HIV", ndiwo makambidwe a makono,
EDZI, n'kuchepa kwa chitetezo kumatenda m'thupi;
Matenda osachiritsika, ameneyu ndi mdulamoyo,
Kaliwondewonde ndicho chizindikiro chake.

Kale ndimakonda kudziyang'ana m'kalilole,
Koma lero n'chododometsa kuti ndidana nako kutero;
Kuti ndingaone m'mene thupi langa lathera,
Ndi mnyozo pamkhope ya munthu wotsalima.

Zalazisanu ndi malo otchuka ndi zoipa aja,
Kale sindimaganiza kuti ndi malo otere;
Chikumbumtima chimandipeza usana ndi usiku,
Dzaulawe, dzaulawe moyo wonjoyetsa.

Ku Zalazisanu kunali mahule okongola,
Ngakhale kuti nsapato anali osazidziwa chibadwire,
Ankavina mwaluso ndiponso mwakaso ndi zala zokha,
Anthu n'kumati malo ano ndi pa zalazisanu.

Kwa inu amene mulibe matenda ya EDZI,
Chonde tsatani njira yoyenera, khalani anzeru,
Makhalidwe autotomoyo akuponyani m'dzenje,
Chenjerani ndi imfa yomwe ikunyengerera.

Mtima wanga wadzala ndi mantha,
Pamene moyo uli pa mpembenu;
Mphepo ngakhale yayaziyazi indigwedeza,
Pano ndikungoti imfa tenge ndione mpumulo.

Gibson H. Zembeni

Communities

The fight against HIV/AIDS is a collective responsibility. Both the community and the school should talk the same language:

- Parents who have had education on HIV/AIDS can come into the school and talk to the students
- Parents can also teach the children at home and complement the school HIV/AIDS programme.
- The school can organise testimonies of people living with HIV/AIDS.
- Drama groups can be invited to perform in the school.
- Music bands can be invited to perform in the school.
- On an Open Day, that is a day when parents are invited to come to the school, parents can read poems, stories, and other messages on HIV/AIDS to the learners.
- Official speeches made on HIV/AIDS by politicians, church leaders, and medical personnel featured in newspapers or pamphlets can be read to the learners.

When inviting a guest speaker or resource person, make sure that:

- The resource person knows exactly what s/he is going to talk about.
- S/he has the special knowledge or skill required to achieve the set objectives.
- The students are fully prepared for the talk. They should know what to expect and be ready to ask questions.
- The resource person knows how much time is given for the talk so that s/he does not engage in irrelevant side-talk.
- A letter to the resource person is sent to thank him or her.

Designing talular resources for teaching about HIV/AIDS

Designing is part of planning to teach. Planning begins with compiling schemes of work and lesson plans. Teaching is a process that facilitates learning and the teacher's role is to design instruction and interact with learners. It is the art of interpreting the syllabuses into schemes of work, lesson plans and learning experiences.

Activity 2

Working in groups:

- describe the guidelines for designing schemes of work for teaching about HIV/AIDS
- give examples of participatory approaches appropriate to teaching about HIV/AIDS
- describe guidelines for preparing a lesson plan

Report your work in a plenary after 30 minutes. Reporting time is 20 minutes.

Feedback

The following guidelines are relevant to the process of designing schemes of work for teaching about HIV/AIDS:

- You should make clear, detailed and balanced schemes of work according to what is contained in the syllabus.
- Include clear instructional objectives on the meaning, symptoms, causes and effects of HIV/AIDS.
- Cover how the learners can contribute towards control of the spread of the AIDS virus.
- Indicate talular resources clearly for use when teaching the topics included in the schemes of work.

- Include a variety of learning experiences that should be comprehensive and interesting to the learners.
- Indicate a variety of teaching methods for achieving the instructional objectives on HIV/AIDS in a participatory way. The following are some examples of participatory methods:
 - discussion
 - debate
 - role-play
 - intereducate, or edutainment or infotainment
 - future's wheels
 - story telling
 - singing songs on HIV/AIDS
 - question and answer
 - reading poems, papers and quotations on HIV/AIDS
 - child-to-child or peer instruction
 - case studies

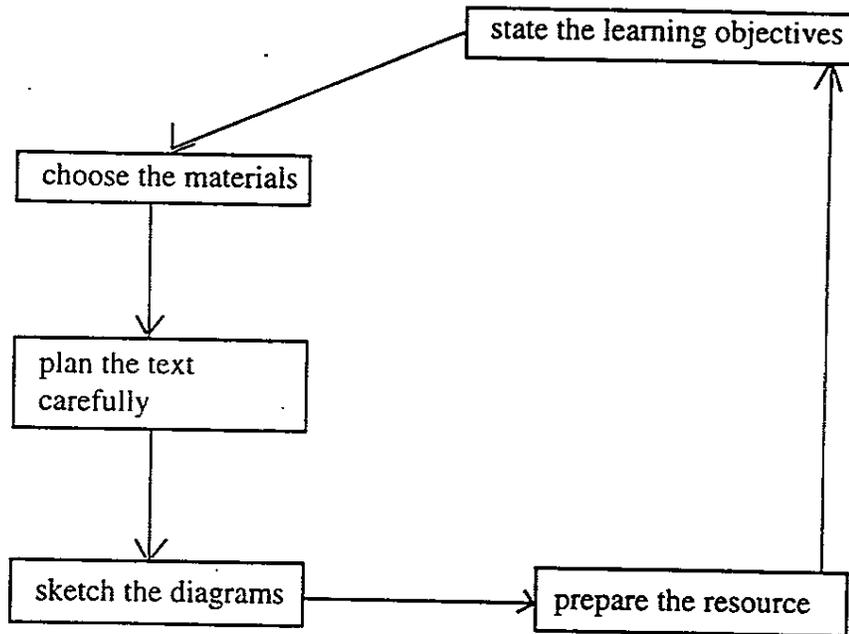
These methods were discussed in Unit one, but here they are presented in connection with teaching about HIV/AIDS. You have to plan the teaching and learning experiences and the use of the participatory methods above, in advance, and rehearse where it is necessary.

Lesson planning

You cannot remember all the objectives, teaching and learning resources, content, teaching and learning experiences, as well as other plans for your lesson without a lesson plan. A good lesson plan emanates from comprehensive schemes of work and thorough lesson planning. Lesson planning is the preparation you make leading into the actual writing of a lesson plan. Please note the following guidelines:

- Plan carefully and adequately for every period shown on the timetable.
- Provide the learners with support illustrations and other resources to support the teaching and learning experiences in order to facilitate students' development of knowledge about HIV/AIDS and skills of writing and speaking against it.
- Fit the topic, objectives, resources, experiences and all other information for a lesson plan, into the lesson plan format recommended by the school.
- Ensure that objectives agree with the topic on HIV/AIDS
- Provide learners an opportunity to review their own previous experiences about HIV/AIDS, in the introduction.
- Include activities that will give learners new experiences in the development of the lesson.
- Ensure that attire necessary for dramatization is made available in advance.

The following map summarizes the process of designing talular resources for teaching about HIV/AIDS:



The process starts with stating the objectives followed by choosing the relevant materials. Next you plan the text and then sketch all the essential diagrams in pencil in order to balance the elements. Finally prepare the resource in ink, carefully so that it looks attractive.

Producing some talular resources for teaching about HIV/AIDS

Production follows designing. Once you complete planning the text and sketching the necessary diagrams, you prepare the resource in such a way that it will enable you to achieve your set objectives effectively. Most of the examples of resources given earlier in this unit were already discussed in the earlier units. There is no need to describe the process of producing them here again. However, we will give one or two examples:

The window of hope

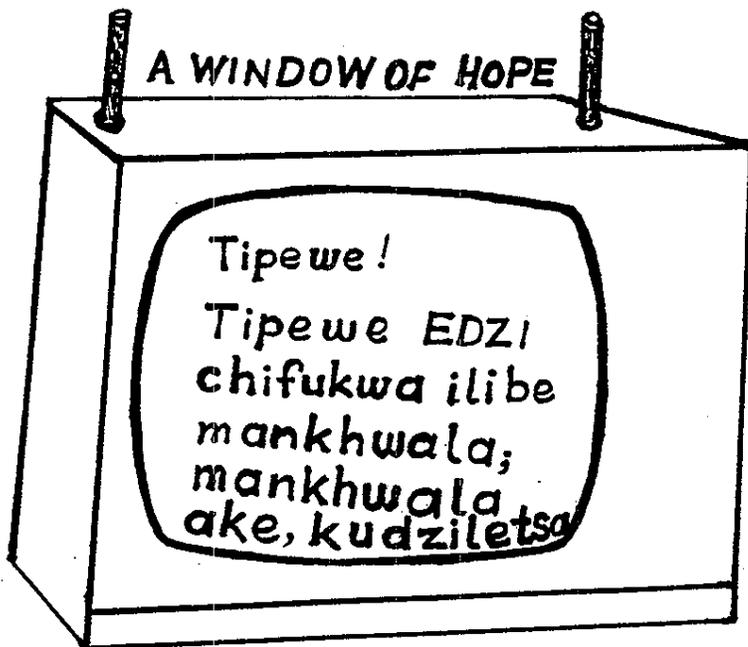
Materials

- pieces of paper (A4 size paper printed on one side)
- two sticks
- a carton
- a knife
- porridge
- a string
- a pen

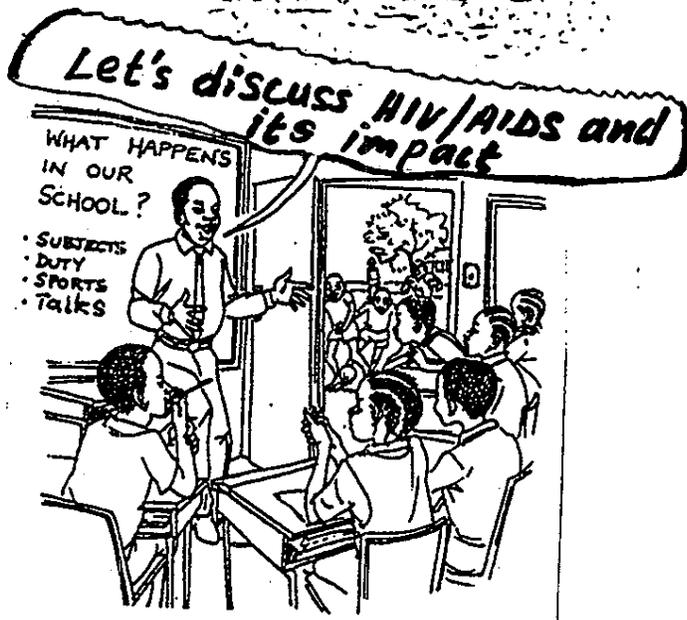
Method

- Paste the pieces of paper together with the porridge to make a continuous piece.
- Write messages on separate parts of the strip of paper in such a way that the message will show clearly at the window of the carton.
- Tie the two sticks, one at either end of the strip of paper.

MESSAGES ABOUT HIV/AIDS



DANCING AND SINGING



- Make two holes at the roof of the carton and two holes at the bottom side with the knife.
- Fit the top ends of the sticks into the holes at the roof of the carton and the lower ends of the sticks into the holes at the bottom. These sticks are the rollers for moving the strip of paper inside the carton so that only one message stands out for reading through the windows.

A teaching chart

A chart is a diagrammatic representation of a process or sequence of events. A chart may summarize information in graphic form to illustrate the impact of HIV/AIDS by indicating how many people are affected at a given time.

Materials

- brown paper from postal parcels
- chart paper written on one side
- sugar paper used for wrapping things
- pencils, pens, colours
- pieces of A4 size paper
- porridge

Method

- Make sure the chart is large enough. If A4 size sheets of paper are used, a large chart can be obtained by keeping on pasting pieces of paper with the porridge until the correct size is reached.
- Draw the whole chart in pencil, before doing so in ink after selecting the subject matter.
- Include information in relation to the size of the chart; too much information makes the chart noisy, that is, unclear.
- Colour important parts for emphasis and prominence.
- Label in such a way that writing is large enough to read easily from the back of the class.
- Use a stencil for all your labelling, where possible.
- Do not mix capitals with small letters in the same layout.

Using talular resources for teaching about HIV/AIDS

Talular resources by themselves cannot do much to improve or promote effective learning. Their value depends on your professional skill in using them.

Activity 3

Working in groups:

- describe the steps that must be considered when using talular resources.
- state how you would use the following prototype talular resources: the flame board and the bulletin board, in a lesson on HIV/AIDS.

Report your work in a plenary after 20 minutes. Reporting time is 20 minutes.

Feedback

The following fundamental steps are useful:

- **Prepare yourself thoroughly.** Familiarise yourself with the resource you intend to use. This will enable you to determine exactly when and how the resource should be used.

- **Prepare the resource.** All the relevant resources to be used should be arranged and organised in such a way that you are able to use them at the exact time you need them. In order not to waste time, all equipment should be tested for proper functioning before the lesson begins.
- **Prepare the environment.** This means ensuring that the environment is conducive to the planned learning experience. The important thing is that learners sit comfortably and can see clearly what you are using or showing them.
- **Prepare the learners.** For learners to gain maximum benefit, ensure that they have sufficient background information about the topic you intend to present. Learners should be told what they are expected to do while and after using the resource.
- **Use the resource.** Introduce all the resources you intend to use properly and adequately. Tell the learners your purpose for using them and how they are connected with the subject of study. Use the resources in the most professional way by clearly explaining, commenting and demonstrating in order to achieve the intended objectives.
- **Evaluate the resource.** Ask yourself some basic questions after use such as:
 - Did it help me achieve my objectives?
 - Did my learners understand and appreciate or they were confused?
 - What do I need to do to improve its use in future?
 - Was it worth the time and energy I spent to prepare and use it?

Using the flannel board

The flannel board provides unique and dramatic medium for creating variety in presenting ideas and facts in the classroom instead of relying heavily on the chalkboard. It is a flexible resource with a multiplicity of applications in the hands of a creative and resourceful teacher. Please note the following tips for a more effective use of the flannel board:

- Plan and rehearse your flannel board presentation. Decide where each picture should be placed and when.
- Do not put too many illustrations that are not essential for the understanding of the explanation.
- Ensure that the board is securely positioned so that it does not fall on somebody's head.
- Stand on one side of the flannel board in order not to block the view of some learners.
- Arrange all the materials in the order you will use them before the presentation begins and place them within easy reach.
- Apply firm pressure from the hand when putting materials on the board for better adhesion.
- You may tilt the board slightly backwards to enhance the adhesion of the materials.
- Test the backing of each material to ensure that it sticks to the board. The backing material may be cotton wool, sand paper or pieces of a sack.
- Place your flannel board away from any possible source of sudden winds that can easily blow away the materials.

The bulletin board

The bulletin board should be placed at the eye-level of the learners. Also, it should be placed in that part of the classroom which is adequately lighted. The classroom wall may be used as a bulletin board using sellotape to stick the materials for display without damaging the wall. Take note of the following guidelines:

- Keep the display simple. Do not overcrowd it with too many unnecessary materials.
- Change the displays regularly to sustain learners' interest.
- Arrange display materials neatly.
- Display on a coloured background, if possible, to add to the attractiveness of the display.
- Base your display on one theme at a time; too many ideas presented may confuse rather than clarify the message.
- Include questions in the display to make it interactive or participatory.
- Ensure that the theme and other captions are written in bold letters to be seen easily.
- Store bulletin board materials such as pictures, articles or cutouts after use for future use.
- Involve learners from time to time in constructing bulletin board displays to develop a sense of ownership, creativity and cooperation.

Activity 4

Working in groups:

- discuss challenges in the use of the condom or rubber.
- some people say that condoms should not be supplied to schools, what is your opinion in this?

Report your work in a plenary after 20 minutes. Reporting time is 20 minutes.

Feedback

Many people think that abstinence is the best way of preventing oneself from getting HIV/AIDS. Others say that if you cannot abstain from casual sex, then use the condom. However, condom use meets with the following challenges:

- Lack of knowledge of proper condom use. This results in some people detesting the use of the condom. Some education is necessary.
- Conservation. Some people maintain their practices of indulging in casual sex without using the condom. They argue it would be absurd to take a shower with a raincoat on, or lick a sweet in its cover! Positive attitude change is necessary.
- Some people speak against the supply of condoms to schools, arguing that this would encourage immoral behaviour among students. This is a narrow view of what else the condom can be used for. The supply of the condom to schools would enhance the following activities:

Magnification

- Fill the condom with clean water.
- Try to read small letters by looking through the condom. The letters look bigger. In this way the condom can be used as a magnifying glass.

Demonstration on properties of air

Air occupies space

- Take an empty condom or rubber
- Blow some air into it. The condom expands to show that the air inside it has caused the expansion. The same experiment illustrates air pressure. The air you blow into the condom presses on the sides and causes the condom to expand.

Air has weight

- Weigh an empty condom on a balance.
- Blow some air into the condom.
- Weigh it with the air inside it. Do you notice any difference in weight? The difference between the first weight and the second one is the weight of the air.

If schools lack equipment for teaching about properties of air in science, is refusal to supply condoms to schools really justified?

- The other challenge is moral use of the condom. Moral means capable of distinguishing between right and wrong in conduct. It is alleged that some people indulge in casual sex without restraint simply because they use a condom to protect themselves. Is this the idea behind using the condom for safe sex? May be it is this behaviour that has led to some people speaking against the supply of condoms to schools.
- There is also the challenge that some teachers who have been trained in HIV/AIDS education do not come in the open to share their knowledge with fellow members of staff in their schools in order to disseminate HIV/AIDS information to pupils. (Nyirenda, DMC et al 2002).
- Lack of community involvement in some of the schools. Community participation would complement school programmes.

The work on use of talular resources for teaching about HIV/AIDS is closely related to venues for teaching about HIV/AIDS, on the following pages.

Venues in the school where HIV/AIDS can be taught

Venues are places where you can talk about HIV/AIDS to increase awareness among the learners.

Activity 5

Working in groups:

- give examples of places in the school you would use as venues to talk about HIV/AIDS
 - describe the methods you would use to talk about HIV/AIDS at the given venues.
- Report your work in a plenary after 15 minutes. Reporting time is 15 minutes.

Feedback

The following are examples of venues and methods to use when talking about HIV/AIDS:

School assembly

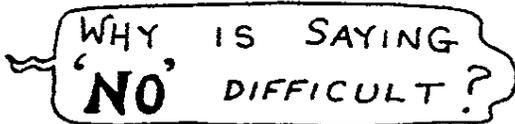
- A prayer on HIV/AIDS
- Reading of a poem or message on HIV/AIDS
- Comment by a teacher or student on the current media reports or news about HIV/AIDS

Classroom

- Teacher presenting factual information about HIV/AIDS
- Group discussion on press reports, students' previous experiences, and topics from the syllabus
- Listening to HIV/AIDS radio programmes
- Story telling about HIV/AIDS

Saying 'no' assertively

Saying 'No' can be very difficult for many people. There are many different reasons why people find it so hard.



Some people just like to please others feel that 'No' would be an unwelcome response.



For example, Someone borrows your best dress/shirt. You know you will soon need it for an interview. What do you say?

Others are afraid of the aggressive reactive a 'No' might provoke.

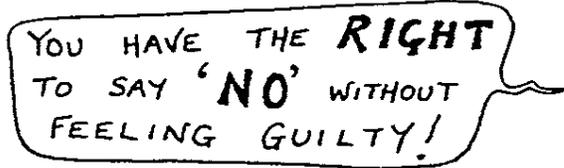
On the other hand some people are just unthinking, unrealistic and never want to be true to themselves about what they are able to do.



If your first reaction is to say 'No' then it is important for you to think about why you want to say 'No'.

Find a way to say it as directly as possible without making excuses and beating about the bush, or giving long-winded explanations.

The key to an assertive 'No' is to remember that - You have the right to say No without guilt.



Saying 'No' firmly and reasonably is very often acceptable to most people and much better than letting them down later.

Saying 'No' become easier with practise saves a lot of worry. It is worth trying.

Girls say no to AIDS activity

You see a large poster which reads "Girls say no to AIDS"



Analyse the discipline problems that could exist in your school as result of saying 'No' passively.

Demonstrate how you could effectively ensure that pupils in your school get the same message and how to respond to it.

- Debate on whether or not AIDS patients should be cared for
- Singing songs on HIV/AIDS
- Writing and reading out poems on HIV/AIDS
- Setting aside some time devoted to HIV/AIDS talk every morning referred to as “morning talk” by meditating on loss of teachers, relatives, other pupils, creation of many orphans and effects of these on education

HIV/AIDS club meetings

- Reading papers on HIV/AIDS
- Drama rehearsals on HIV/AIDS
- Composing poems, plays and songs on HIV/AIDS

Open Days

- Singing songs on HIV/AIDS
- Displays of posters and charts on HIV/AIDS
- Drama performance on HIV/AIDS
- Talk by guest speakers on HIV/AIDS
- Video viewing on HIV/AIDS
- Reading poems, messages, quotations and press reports

Staff meetings

- Discuss how to address HIV/AIDS to the students in the school.
- Discuss how to address HIV/AIDS to parents through the Parents Teacher Association (PTA).
- Discuss rules and code of conduct for teachers and students.
- Share experiences and literature on HIV/AIDS.
- Consolidate school activities intended to promote awareness of HIV/AIDS such as debates, reading and writing competitions, school magazines to get messages across and drama.
- Discuss charity work by students to the affected.
- Discuss guidance and counselling sessions.

It is clear that there is an urgent need for action to meet the HIV/AIDS crisis. Activities to bring about awareness of the seriousness of the AIDS pandemic and to effect behaviour change are very crucial. Implementation of strategies towards prevention of the disease should be seen as a collective responsibility. Training and HIV/AIDS education should be intensified. The youth who are targeted in schools should actively participate in the fight against the killer disease. Talular resources included in this unit are examples of the many resources you can use for teaching about HIV/AIDS. Creativity and commitment will enable you to discover more and more talular resources.

UNIT 12

Teachers' resource centre

Introduction

Teachers' resource centres are units set up all over a particular country concerned mainly with curriculum development and teacher support. Teachers' resource centres may be found as part of a school or as part of a teachers' college or as an independent unit. Each resource centre has a warden who is a specialist, and some subordinates.

The specialist and his staff carry out some research in the use of teaching techniques. Normally, a teachers' centre comprises a working room, a discussion room and a refreshment area. The working room is a resource department where teachers may make some TALULAR, and learn how to use the TALULAR and some other equipment. The discussion room includes a library, and is comfortably furnished so that teachers can exchange their problems and ideas in a relaxed atmosphere. Sometimes the library is a separate room to allow more space for books and some equipment. The refreshment area is a room where tea is served.

In Malawi, the country is divided into zones and each zone has a teachers' centre called a Teacher Development Centre. A Primary Education Advisor (PEA) is based at the Teacher Development Centre (TDC) and is responsible for management of the Teacher Development Centre. Recently training of Senior School Staff: the Head, Deputy Head and Section Heads took place at the Teacher Development Centres throughout Malawi, in management skills, a form of in-service education.

Teachers' resource centres are popular because they support teaching in schools by working with teachers in the production of teaching and learning resources. They also coordinate with such organisations as Subject Associations, Curriculum Centres and Teachers' Colleges.

Objectives

By the end of this unit, you will be able to:

- classify resource centres
- describe the functions of a teachers' resource management team
- define in-service education
- state different types of in-service

Classification of resource centres

One of the most important variables in learner achievement is the teacher, a talular human resource. All the learners in the classroom look to the teacher for satisfaction of their needs. In other words, students' learning centres around the teacher. This is why if students' performance is poor, it is the teacher who "reaps the harvest." It is for this reason that for purposes of TALULAR, classification of resource centres will begin with the teacher.

Activity 1

Working in groups:

- discuss in what way(s) would the teacher be regarded as a resource centre
- give other forms of resource centres

Report your work in a plenary after 20 minutes. Reporting time is 20 minutes.

Feedback

The teacher would be regarded as a resource centre in TALULAR terms as s/he is expected to use the following talular resources for effective teaching and learning:

- Personal knowledge, skills or talents, language, and experiences. In this regard, s/he should continue to develop or grow professionally. An effective teacher knows more than what s/he is expected to teach.
- Personal qualities such as humour, perseverance, enthusiasm, conscience, honesty, friendliness, authority, resourcefulness, creativity, diligence, and so on.
- Parts of his or her body:
 - arms for emphasizing some points during lesson delivery
 - fingers for teaching addition, subtraction, or multiplication as described in unit one.
 - hands and arms to demonstrate "writing" numbers and letters in the air
 - the body and arms to "spell" some words, for example, coconut
 - in vocabulary teaching, naming the body parts, for example, "This is my chin," "This is my nose," "These are my eyes," and so on.
 - the head to show agreement or approval by nodding when a correct answer is given
 - voice by varying the tone to create euphony in speech, that is, the pleasing effect of speech to the ear.

Unfortunately, not many teachers realise they are such a rich "resource centre". Consequently, their lessons are uninteresting and less effective. It takes a committed teacher to discover various ways of tapping from the above resources for effective teaching and learning. How committed are you?

Other resource centres

- **A classroom resource centre**

This is a place in the classroom with displays of TALULAR to create a **learning centre**, that is, learners are encouraged to learn incidentally from the displays during their free time. As said earlier, the rule is to vary the displays by keeping on replenishing the stock with new resources and those that get too old replaced or renewed, to sustain learners' motivation.

Included in the classroom display are progress charts. The need for teachers to keep good records of learners' progress has been emphasized under continuous assessment. It is important to recognise that the usefulness of keeping records is dependent on the extent to which the records are in actual fact, used. Keeping records that serve little purposes will not be a good use of your time. Remember, keeping a good record of pupils' progress should serve three main functions:

- it should provide a useful basis from which reports to pupils, parents, other teachers and other stakeholders can be made.
- it should highlight any cause for concern if a pupil's performance shows a marked drop compared with previous progress.
- it should facilitate the planning of future work with each pupil by building upon previous progress and that areas requiring remediation receive attention.

One of the progress charts has names of all the learners in the class. Scores for assessment tasks are recorded against each name. In order to create competition among learners, stars are used to indicate outstanding performance so that those who fall behind aspire to getting a star! Other charts are the self-assessment chart and the Rainbow chart, already described under continuous assessment.

The teacher's diary is a valuable resource in the classroom resource centre. Part of the diary is used to record statements about self-appraising your teaching. There are two key aspects of your teaching appraisal. First, what aspects of your teaching need to be considered in order to improve your future practice? Second, how can you go about improving your practice in the area that could usefully be developed? The first aspect involves setting yourself an agenda about classroom teaching to consider, and then collecting some information that will help you to judge the area that could usefully be developed. The second aspect deals with the programme for development. Here are a few examples of statements that may make an agenda:

- I plan my lessons well, with clear aims and a suitable lesson content and structure.
- I prepare the materials needed for the lessons, such as worksheets, job cards, teaching and learning resources in good time.
- My explanations and instructions are clear and pitched at the right level for learners to understand.
- I distribute questions around the classroom well and use both open and closed questions.
- I use a variety of learning activities.
- My lessons are suitable for the range of ability of learners – fast learners, average, slow.
- I maintain a level of control and order that creates an atmosphere conducive to learning.
- I monitor learners' activities and progress closely during the lesson and give help to those who need it.
- I mark work, including homework, thoroughly, constructively and in good time.
- I have good relationships with learners based on mutual respect and rapport.
- My subject expertise is fine for the work I do.
- I employ a range of teaching methods appropriate to a whole class, groups or individual.
- Match teaching methods to the learning activity and pay attention to pace.
- Communicate clearly and intelligently with learners orally and in writing.
- Evaluate the effectiveness of my teaching in the light of learners' responses and make appropriate adjustments.

The teacher has another section for data collection about his or her current practice. This data collection may be done after each lesson with a particular class or alternatively at the end of each school day. It is particularly useful in helping the teacher to clarify the nature of his or her concerns and in noting some incidents as examples of the concern. Chris Kyriacou (1991) gives the following as examples of areas for data collection:

- overall classroom climate at a particular moment in time
- learners' response to classroom rules
- how learners feel about curricular activities which they undertake in school
- individual child's curricular experiences and individual differences
- tasks in terms of their learning demands
- question-and-answer exchanges
- monitoring of class activities
- motivational qualities of a series of classroom activities
- quality and consequences of relationships between the teacher and learners

All effective teachers spend a lot of time appraising or reflecting about how well they are performing their work, both in connection with their classroom teaching and with regard to other aspects of their work in general. It is important to realise that reflection and evaluation is inherent in the job. It is not possible to meet the various demands of teaching without adequate planning, organizing, monitoring and evaluating the activities you carry out. Kyriacou (1991) summarises guidelines that could form part of a teacher's diary on reflection and evaluation:

- Do I regularly, consider my current practice with a view to identifying aspects that can usefully be developed?
- Do I make use of evaluating my lessons in informing my future planning and practice?
- Do I make use of systematic methods of compiling data about my current practice that may be helpful?
- Do I try to keep well-informed about developments in teaching?
- Do I make use of a variety of ways of developing a particular teaching skill, for example, attending workshops, using training manuals, and collaborating with colleagues?
- Do I make the best use of my involvement in a scheme of teacher appraisal to consider my development needs?
- How well do I help colleagues to appraise and develop their classroom practice?
- Do I regularly review how I can organise my time and effort to better effect?
- Do I use a range of useful strategies and techniques to deal with sources of stress effectively?

Example sources of stress being:

- pupils with poor attitudes and motivation towards their work
- pupils who misbehave and general class discipline
- poor working conditions, including career prospects, facilities, time pressures
- conflicts with colleagues
- feeling undervalued by society
- Do I help create a supportive climate in my school to help colleagues discuss and overcome problems?

It is useful to note that reflection and evaluation does not necessarily imply that by wanting to look at this aspect further, your current practice is poor. This is essential because the need for change in your teaching often has nothing to do with your current practice being weak. Reflective teachers have the attitude of wanting to improve their current practice no matter how well they are already doing it!

- **A school resource centre**

This is a place in the school, a room or hall, where resources are kept. In unit one of this manual, this place was referred to as a **talular bank**. The idea behind establishing a school resource centre is to facilitate access to a broad base of resources by teachers and students. The community can also benefit from the school resource centre during adult literacy classes.

The stock of the school resource centre

Good teaching demands that learners become exposed to as many sources of information as possible. A school resource centre, therefore, requires a varied collection of books and other non-book materials (see the TALULAR challenge), that meet the needs of users. When deciding what stock is needed, consider the following questions:

- Is the information contained in the material accurate and up-to-date?
- Does it meet the varying interests and special needs of learners and teachers?
- Does it support and address the teaching and learning needs of the school in terms of subjects offered?
- Is the material or content culturally appropriate and acceptable?
- Is the material attractive?
- Is the level of the material suitable for the intended purpose, or users in terms of language, style, difficulty and age?

Normally, a school resource centre starts with a few items. Teachers often ask; "What is the point of trying to develop a resource centre if we do not have the money to buy stock?" This is a narrow view of what constitutes a school resource centre. You do not need a large collection of books and other resources in order to start a resource centre. The aim is to start with just a few and increase your stock gradually. If you look around, there are many resources both natural and man-made that can be collected and used to make a school resource centre. Some of the resources have to be produced. The following are some examples of stocked items:

- **Subject files and boxes or cartons with useful and relevant reference materials.** There are a useful device for teachers to share ideas, teaching materials and learning resources on certain subjects.
- **Newspapers, journals, periodicals and magazines.** In order to preserve them, cut out the most interesting articles and store in files or boxes. You may also bind them in a strong folder to maintain their condition.
- **Flipcharts, maps, posters and wall charts.** These provide permanent records of useful topics, such as grammatical items, mathematical tables, historical and geographical information. They are best displayed on the wall, but where space is limited you may roll them up and stacked. Rotating the display materials ensures good exposure of users of the resource centre to all the different information contained in these materials.
- **Display charts or boards.** These can be made from cement bags, cloth, mats, plastic bags, blankets, sacks, cardboard and the back of doors. Pictures, cutouts, or writing can be attached or displayed.
- **Models.** These can be made from wood, newspapers, clay, papier mache and plasticine.

- **Objects.** These include wood strips, sticks, bottles, bottle tops, tins, stones, seeds, fruit shells, seed pods, matchboxes and so on. (see the TALULAR challenge).

Sources of resources for the school resource centre

Sources of resources include:

- Donations from organisations such as the British Council, Embassies, High Commissions, National Library Service (Malawi), Book Aid International (UK) and International Book Bank INC (USA) in terms of books.
- Collections from the school environment in terms of specimens and raw materials for recycling.
- Learners collecting from home.
- Contributions by the community.
- Exchange programme of books and other TALULAR with other school resource centres. In this way you establish a network of links with other resource centres and develop a system of inter-resource centre loans.
- Teachers who leave the school may donate some of their classroom stock to the school resource centre.
- A talular club comprising learners and teachers, as described earlier, can produce teaching and learning resources for the school resource centre.

School resource centre checklist

Here is a sample checklist for a school resource centre:

- size and location of the school resource centre
- form a resource centre committee
- decide on organisation of resources, for example, marking display areas according to subjects and type of resources
- decide on resource centre rules and regulations
- decide on resource centre personnel
- a system for lending resources
- furnish and equip the resource centre
- stock the resource centre
- establishing files for the stock and updating records after receiving new stock or returned stock at the end of loan period
- displaying stock, new or old just returned
- check physical condition of returned stock
- list down missing items
- weeding the old stock. This is a process whereby out of date, torn and dirty resources are removed from the stock. Sometimes resources that have been weeded should be kept away in a storeroom for use when need arises, instead of removing them completely.

The checklist is not exhaustive. The main purpose for it is to guide operation of the resource centre. The checklist should be accessible to the users for easy and quick consultation.

Care for resources

Books and other talular resources are easily damaged by bad weather conditions, pests and careless handling. Teachers must anticipate problems and preventive measures should be taken. The right kind of storage techniques should be used for various resources so that they may last, while still encouraging regular use. The following are guidelines for caring resources:

Weather

To protect resources from moulds:

- dust them regularly
- keep them in a dry and clean place
- allow plenty of fresh air to circulate, leave doors and windows open during the day
- do not pack them tightly

Excessive dryness can also lead to damage, especially to books: pages become brittle, covers and spines curl up. Too much sunshine falling on books can make the covers fade and pages become yellow. Keep books in well ventilated places and avoid exposing them to direct sunlight.

Insects

Insects such as termites, cockroaches, silverfish, bookworm, mud-wasps and ants are potential dangers. To control these pests:

- use insect sprays regularly
- clean shelves and other storage boxes; if possible treat them chemically before using them
- screen windows with mosquito netting or mesh
- encourage regular use of resources
- dust and wipe resources regularly
- be on the look out for any signs of insect damage and take necessary action against the insects quickly.

Rodents and other vermin

Rats and mice can cause damage to books and other resources. To control these:

- set traps
- use a cat to catch them
- carry out regular inspection
- ensure that the place is kept clean all the time
- use a specially made poison (read instructions carefully).

Handling resources

It is important that books and other TALULAR are handled with care in order to sustain their life.

- cover the book jackets preferably with a transparent plastic; the cover is usually sewn with a thread and needle
- open the book at several different places to ease the binding
- do not force a book open
- on the shelf, make sure books are not too loose; they may fall awkward and the binding will be spoilt
- make use of book supports to prevent books from toppling over or falling on the floor
- do not pull a book from the shelf by forcefully tugging the top of the spine
- take a book off the shelf by putting your thumb and the middle finger on either side of the spine
- put a book back on the shelf by making room with your left hand and insert the book gently into the space created

Please note that one of the ways of sustaining the life of books and other TALULAR is carrying out some repairs from time to time. In many cases prompt repairs will be simple first aid jobs which may not require complicated mending procedures. Sometimes if pages become loose, you may simply make several booklets in single chapters or units by binding with glue or sewing with a thread and needle. Several supplementary readers are created in this way.

- **A teachers' college resource centre**

A resource centre should be established in a teacher training college. It should comprise books and other TALULAR resources just like a school resource centre described above. The following are some of the purposes for setting up a resource centre in a teachers' college:

- encourage good reading habits to develop a reading culture among students
- provide tutors and students with information on subjects of the curriculum, in particular, content and methodology
- teach students how to compile non-book resources such as pictures, articles from newspapers, magazines and samples from art and craft for use in teaching
- teach students how to create a stock of specimens and other non-book resources from the local environment
- engage students in recycling resources from the local environment and demonstrations on how to use the recycled resources
- engage students in production of supplementary readers by binding into booklets old novels, textbooks that are no longer in circulation, magazines, cutouts from newspapers, short stories written by the students themselves, poems written by the students or local authors, and so on
- teach college students how to set up a classroom resource centre and its organisation
- teach students how to set up a school resource centre and its organisation

A college resource centre should be run by a committee comprising tutors and students. The committee coordinates the activities connected with the centre as well as management of the centre. Management includes:

- lending out books and non-book resources during microteaching, that is, teaching that involves a small part of a lesson or a small group of pupils or peers, and during teaching practice
- ensuring that the resource centre is stocked with relevant and varied resources
- organising cleaning in the centre
- arranging stock neatly in the centre
- carrying out some repairs

It must be stressed here that college students should be exposed to management of the college resource centre and how to use books and other TALULAR adequately to prepare them for their teaching career. It is hoped that sound knowledge about running a college resource centre will enhance establishment and running of the classroom and the school resource centres when they leave the training college.

Regional or zonal resource centre

A talular resource centre could be established at the regional headquarters. Depending on how many regions there are, it is expected that a resource centre will be established in each region. Some countries call these regions provinces. In the case of Malawi, the country is divided into six Educational Divisions and 315 zones. It is envisaged that every zone will have its own Teacher Development Centre, comprising a meeting room, an office, a library and a house for the Primary Education Advisor (PEA). The PEA is a person responsible for supervision and professional development of teachers in 10-15 primary schools. Secondary schools are grouped into clusters under the supervision of Senior Education Methods Advisors (SEMAs) and Principal Education Methods Advisors (PEMAs). The arrangement is that PEAs, SEMAs and PEMAs should collaborate in the task of facilitating use of the Teacher Development Centres by both primary school and secondary school teachers.

It would be appropriate and advantageous to use existing structures as talular resource centres regardless of the original idea for their establishment. For example, the Teacher Development Centres should be furnished with good and adequate prototype TALULAR, so that they are both Teacher Development Centres and Teacher Resource Centres. Syllabuses and Teachers' Guides suggest teaching and learning resources to go together with the teaching of a particular subject or topic. It would be appropriate to have samples of these and others that are relevant, but are not necessarily included in the syllabuses and Teacher's guides. Teachers would be invited to the resource centre to copy the samples and also to stimulate their creativity. The TALULAR challenge sheet discussed in unit 1 will be very useful here. Furthermore, it is expected that apart from inviting teachers to the resource centre from time to time, schools themselves should initiate sharing of expertise and experiences either at the individual schools or at the inter-school level in order to increase chances for meeting to achieve proficiency and excellence in the use of TALULAR.

Purposes of the regional or zonal resource centre

The following are some of the purposes of the resource centre:

- To support teachers professionally as a valuable resource.
- To facilitate acquisition of knowledge and skills in production and use of TALULAR.
- To facilitate community involvement in educational issues by allowing the community to have access to the resource centre during Parents-Teachers Association meetings, Open Days, and adult literacy classes.
- To establish a system for teachers from different schools to share expertise and experiences.
- To enhance school visits to boost interschool relationships.
- To provide access to facilities the centre may have apart from prototype TALULAR, such as audio-visual equipment. for example, television sets, radio, tape recorders, books and equipment for producing TALULAR eg, pairs of scissors, knives, saws, and so on.

Management Committee for the resource centre

A Management Committee, sometimes referred to as a Management Team comprises teachers and members of the community. The committee is responsible for the smooth running of the resource centre in terms of organisation and operation.

Activity 2

Working in groups:

- discuss why it is necessary to include members of the community in the Management Committee.
- suggest some duties for the Management Committee.

Report your work in a plenary after 20 minutes. Reporting time is 15 minutes.

Feedback

Inclusion of members of the community in the Management Committee has the following advantages:

- To enhance development of a sense of ownership. This results in the community supporting the resource centre with resources.
- Security of the resource centre is guaranteed.
- Sensitisation of the community in various issues is easy when some members are already associated with the operations of the resource centre.
- By encouraging the community to participate in the operations of the resource centre cooperation between teachers and the community is enhanced.
- Parents are easily influenced to develop interest in the education of their children.

Management committee may carry out the following duties among others:

- To sensitise the community about the activities or functions of the resource centre.
- To identify stock and order for the centre.
- To identify needs and plan to satisfy these needs.
- To encourage teachers and the community to use the centre.
- To draw a calendar of events in terms of professional development activities.
- To encourage schools to contribute materials to use during production of TALULAR.
- To invite teachers for sessions at the resource centre.
- To organise Open Day displays at the resource centre.
- To carry out fund raising activities where necessary.
- To invite experts or guest speakers during in-service courses.
- Monitoring and evaluating the curriculum.

The meaning of in-service education

A teacher should have a sound academic and professional educational background in order to teach confidently and effectively. Since his or her teacher training only lasts a relatively short time, one or two years, in the case of Malawi primary teacher training, it is not possible for him or her to attain all the education s/he needs during training. It is, therefore, necessary that s/he continues to learn after training so that s/he can cope with any demands that teaching makes on him or her.

Activity 3

Working in groups:

- define in-service education
- discuss various forms of in-service education that would take place at the resource centre.

Report your work in a plenary after 20 minutes. Reporting time is 20 minutes.

Feedback

The form of education that a teacher receives during his or her initial training is called Pre-service Education, that is education attained before s/he takes up the appointment as a teacher. In-service Education (INSET) is education a teacher gets in the course of his or her service.

In-service education may consist of carefully organised, sustained work spread over a long time leading to a further qualification in the form of an advanced certificate, diploma, or higher degree. It may also be casual study, in the evenings, weekends, during vacations without necessarily leading to any significant recognition for purposes of salary increase or promotion. It may start at almost any point of personal education and may last for one, two or more years. It may also combine both professional and academic studies.

In-service at the resource centre would have to begin with the staff at the centre in order to:

- improve their knowledge and pedagogical skills, that is, methods of teaching
- specialise in subject content and suggested teaching and learning resources
- develop skills in making TALULAR and use of the local environment
- improve their management skills in order to run the resource centre effectively
- develop skills in needs identification and assessment

Types of in-service education

The following are some of the types of in-service education that could be conducted at the resource centre or at a school, but initiated by the staff at the centre:

- **An induction course**

This is a kind of in-service education whose aim is to help probationary teachers. These are teachers who leave college and still lack experience both in teaching, production and use of TALULAR. The centre would support any new teachers in the schools around it. This arrangement motivates and encourages the teachers to develop their potential. It would be more appropriate in places where teacher training is relatively short as is the case in Malawi.

- **Short weekend courses**

These are courses running at weekends. Weekend courses have proved to have many advantages such as classes are not affected as would be the case if the courses were run during working days, cost effectiveness is relatively high because teachers have not wasted any time and so on.

- **Short evening courses**

Some short courses are conducted in the evenings because the school system involves daytime attendance by students and teachers. These courses are arranged in this way again because of the general readily accepted assumption that all non-full-time in-service education should take place at the teacher's own apparently free time. In any case, it demands high motivation on the part of the teachers for there may be problems of transport, family problems, and so on.

- **Short courses in school time**
Sometimes teachers may be released to attend classes in working time. Teachers may attend in-service education classes to acquire certain skills in the use of technical equipment in local technical colleges or at the resource centre if it is supplied with this equipment. One problem with courses taking place in school time is that they interfere with teaching, particularly if a number of teachers from one school may go away while leaving behind a relatively small number of teachers.
- **One term full-time course**
This is in-service provision for one term full-time course. Courses may be offered on subject content, methodology, use of sophisticated audio-visual equipment, design and production of other TALULAR. This course is highly specialised and covers a wider area and may lead to some marked recognition for purposes of a higher qualification certificate award.
- **One-year or longer full-time course**
This is a full-time course of specialisation similar to the one-term full-time course. A course of this kind is normally offered to non-specialist teachers who are converted into specialists. For example, if a primary school teacher who may be a general practitioner moves to a secondary school where there is specialisation, a course of this kind is undertaken. It is known as a 'conversion' or 'supplementary' in-service course. Also, it is possible to become a TALULAR specialist by undertaking a materials design and development course. Normally such a course would be offered by a university. For example, the Training of Trainers Programme in Multilingual Education at the University of Cape Town has a component of materials development.
- **Longer sustained part-time courses**
Some of the certificate, diploma and degrees that are awarded after following a one year-full-time course are also awarded to teachers who undergo a similar course by part-time study. On studying, the course is divided into shorter periods spread over a longer period. A course of this kind is called a 'sandwich' course. This system is generally favoured by many people because they study while they are at the same time teaching. However, it is vulnerable to failure in getting the study sustained.
- **Conferences**
Subject-based conferences are conducted at the resource centre. Teachers with specific subject interests attend such conferences. The course is meant for orientation of certain methods of teaching or discussing the introduction of new syllabuses and so on. Tutors from Teacher Training Colleges and the Curriculum Development Centre are invited to give lectures in their special subject areas. In some countries the Curriculum Development Centre is part of the Teacher Resource Centre.
- **Seminars**
Seminars are meetings by groups of teachers, for holding discussions or exchanging information, discuss teaching theories, and so on. Education Advisors or Inspectors of Schools or Education Methods Advisors after their snap visits to schools conduct short courses ranging from one-day to a week's duration. All teachers in an area gather at the resource centre of the area. The main purpose for organising these seminars is to discuss ways of improving teaching standards and learner performance. Seminars allow teachers to get together and share expertise and experiences for mutual benefit.

It should be stressed that in-service education is continuous. In order to systematise it, there should be in-service education taking place at the resource centre as well as at the schools as school-based in-service education. The idea of a 'teacher tutor' or 'mentor teacher' should be adopted where possible. This is a teacher trained to facilitate school-based in-service education in liaison with the resource centre staff. Also, besides a Management Committee, there should be a Training Support Team (TST) sometimes called a Core Training Team (CTT) that is a team of subject specialists who facilitate training sessions during in-service education. They are also involved in visiting schools as a follow-up of the skills and application in connection with the training that is offered at the resource centre.

In order to benefit from in-service courses, in order to boost teaching and learning, teachers should discuss specific areas of a subject at a time, instead of having a broad spectrum of the course. For example, development of TALULAR could feature a particular subject area: TALULAR for Mathematics, TALULAR for Literacy, TALULAR for Social Studies, TALULAR for Science and TALULAR across the curriculum, that is, TALULAR that can be used in several subjects. Above all, in-service education should be based on identified needs in subject areas.

UNIT 13

Basic TALULAR display and storage techniques

Introduction

Teaching and learning resources may be held and shown to pupils by the teacher while illustrating a point or explaining something. The teacher can also display them in the classroom in a variety of ways. The main purposes for displaying teaching and learning resources in the classroom include referring to them while a lesson is in progress by the teacher, interacting with learners by requesting them to identify certain features of the resource, match a label on a card with an appropriate part of the resource and creating a learning centre to promote incidental learning, that is, learning during learners' free time.

Some damage of talular resources is inevitable, that is the price to pay for learners gaining a deeper understanding of the ideas or things they learn effectively through TALULAR. As already said, there are many advantages in using talular resources in the classroom because learners become particularly interested in learning. In order to sustain the use of teaching and learning resources and also to reduce the amount of work involved in making them available, store them properly. Displays should be renewed to sustain learners' motivation. The talular resources that are removed from the display should be stored in the talular bank or school resource centre for future use and fresh ones put on display.

Objectives

By the end of this unit you will be able to:

- describe various talular display techniques
- display talular resources in the classroom
- use displays in teaching
- identify materials you can use for storage
- make storage materials available
- store talular resources appropriately

Talular display techniques

By displaying your teaching and learning resources you give the learners the opportunity to see closely, feel, taste and satisfy their learning styles and curiosity.

Activity 1

Working in groups:

- discuss various talular display techniques
- describe how you would use displays in teaching
- collect some of your resources you made in one of the earlier units and demonstrate how to display them appropriately

Work for 20 minutes, put your work on a chart and display it. Demonstrate how to display the teaching and learning resources you have brought.

Feedback

The following are some of the basic talular display techniques:

Table display

- collect sticks, grass, reeds, or bamboos
- a string or rope
- make a table-like structure by building the grass, sticks, reeds or bamboos together with the string or rope

Wall display

- demarcate the walls of the classroom
- fix nails for hanging charts and other talular resources
- make frames around charts and tie strings for hanging
- use pins if the walls of the classroom have a soft board on the surface
- a wall like structure may be constructed with grass, reeds, sticks or bamboos for displaying illustrations outside the classroom

Mat display

- find a reed mat or a palm leaves mat
- fit tails on the back of pictures with pieces of paper and porridge
- use pins, needles, or thorns to display on a palm leaves mat
- post the tails into the spaces of the reed mat to display the pictures

Ground display

- demarcate the ground or floor
- spread sacks, cloth, cardboard or newspapers

Plastic sheet display

- find a sheet of plastic, preferably black
- support the sheet of plastic with a piece of cardboard by sewing or tying the sheet of plastic onto the surface of cardboard
- use sellotape or gum to display illustrations on the plastic sheet

Bulletin board display

- find a piece of cardboard
- make a frame along the edge of the cardboard with a reed or a bamboo and a string
- use porridge to paste newspaper or magazine cuttings on the cardboard
- write a caption or title for the Bulletin board, which is either "What's up?" or "What's new?"
- collect learners' stories, articles, and your own descriptions or instructions for the bulletin board

Flannel board display

Flannel is a piece of cloth that is hairy on the surface. In the absence of flannel material, use a sack or a piece of blanket.

- find a piece of cardboard, a sack or piece of blanket
- cover the cardboard with the sack or piece of blanket
- make a frame with pieces of a reed or bamboo along the edge of the cardboard by binding the pieces of reed together with a string

- paste cotton wool on the back of every illustration to be displayed on the flannel board, you can also stick pieces of the same material that covers the surface of the flannel board on the back of every illustration instead of the cotton wool; the flannel board works on the principles of "rough sticks to rough"
- keep illustrations in clearly marked envelopes

Washing line display or string display

A string or wire is used to display word cards, number cards, pictures and other illustrations. You can use a line or string for display especially if you conduct a lesson in open air.

- find a string or wire, two poles
- dig two holes in the ground with a panga
- fix the poles in the holes
- tie one end of the string to one pole and the other end to the other pole
- find pegs, safety pins or paper clips and use them to hold the illustrations on the line or string
- find two nails and fix them apart on the wall of the classroom; tie the string to these nails

Tree display

Tree display, as described under continuous assessment is done on a branch of a tree.

- find a branch, a tin and stones
- put the lower end of the main stem into the tin and support it with the stones; the tin forms the base of the branch
- make word cards, number cards, cutout pictures and information from newspapers
- find paper clips, safety pins, thread and use them to hang the illustrations on the branch

Two-hole display

- find pieces of wood or plank and some nails
- fix the plank horizontally along the walls of the classroom at the learners' eye level with the nails
- fix pairs of nails along the piece of wood the same space apart as the space between two holes of a punch
- punch two holes along the top edge of every item you intend to display

Mobiles

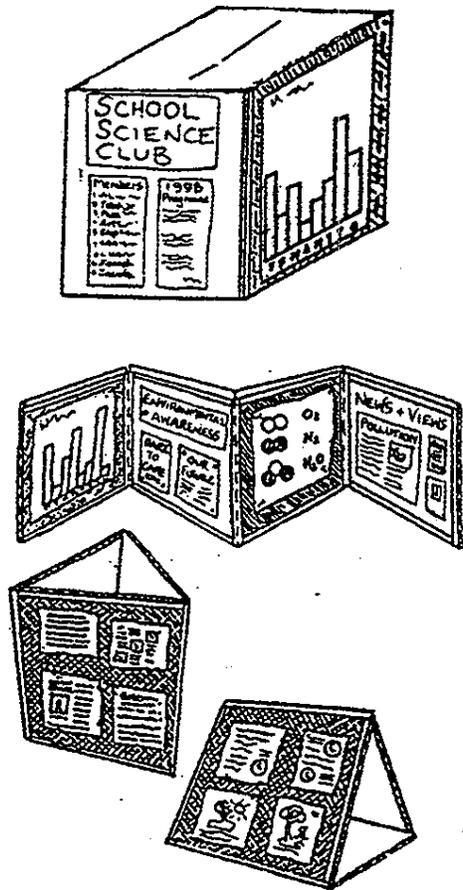
Pieces of wood and string are used to create a display in which the items displayed balance when suspended on one of the beams of the roof or a hook on the ceiling.

- find pieces of wood and string or thread
- tie the illustrations to the sticks in such a way that you create a network that balances
- fix a nail on one of the beams of the classroom roof or fix a hook on the ceiling
- hang the mobile so made on the nail or hook

Basic talular storage techniques

There is a great need to sustain the life of the material resources. You should store what you have collected or made for easy access and that you should not be making the same teaching and learning resources over and over again.

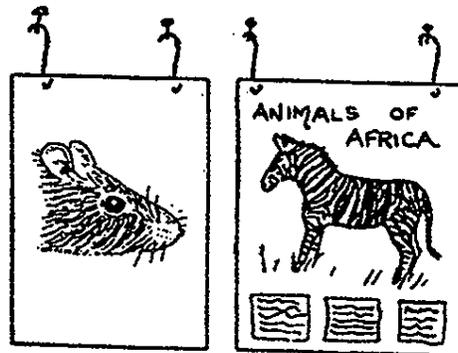
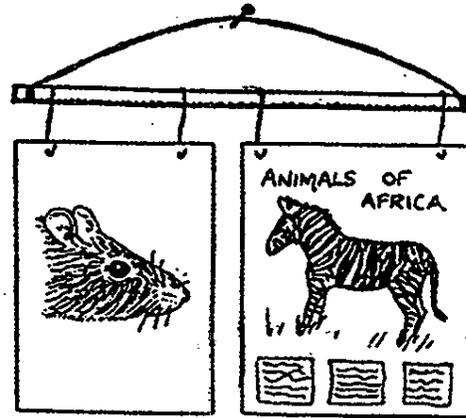
Free standing display boards



The display boards shown were all made from cartons or cardboard boxes.

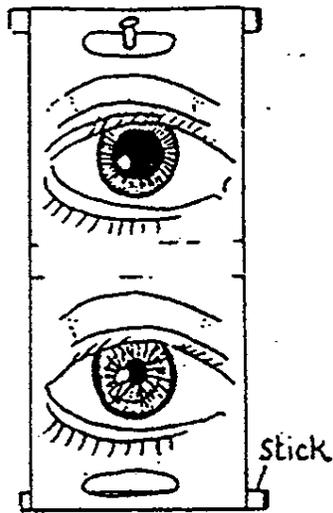
- Turn the box upside down and use the sides for display areas.
- Cut down one side of the box and open out as shown. Cut off any flaps which do not help support.
- Cover display boards with paper, cloth or paint for a more permanent aid.
- Wall pins boards can be made from box cardboard.

Display beams and nails



If a teacher regularly has more than one chart to display, a display beam or a series of nails above the blackboard will be useful. Wire hooks from the nails or the beam may help pictures or objects (realia) hang flat.

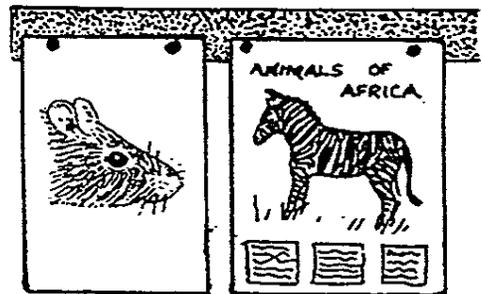
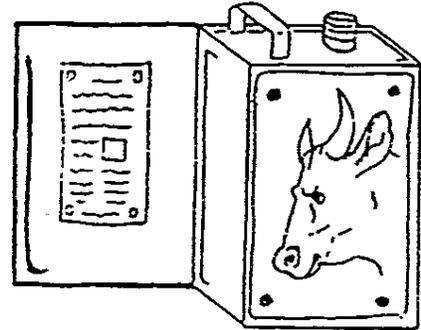
Plastic bag display



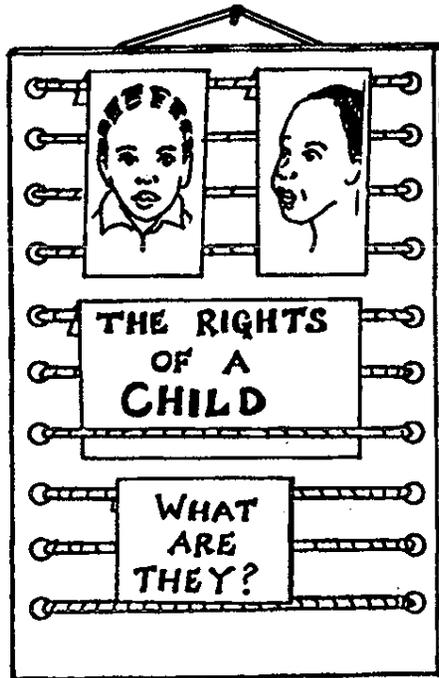
Construct something like a fence if you conduct lessons in open air!

Open out a plastic carrier bag and tidy the edges. Add strengthening sticks at the top and bottom. Removable adhesive tape tabs can be used to attach display materials. Starch glued papers can be washed off this type of display chart. Permanent marker pens can produce a durable presentation (most come off with spirit).

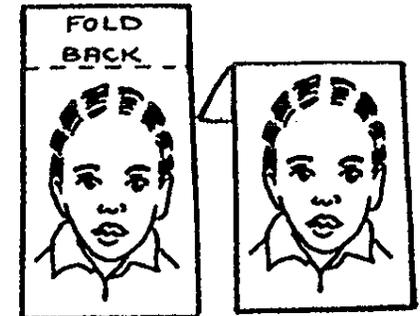
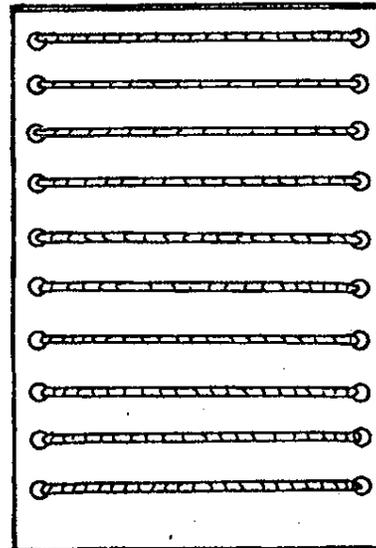
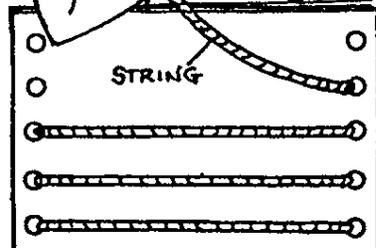
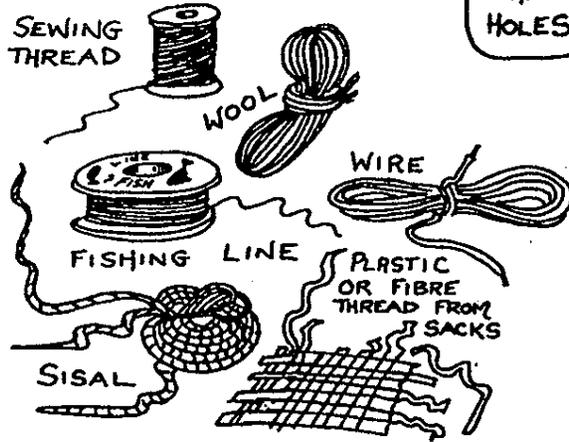
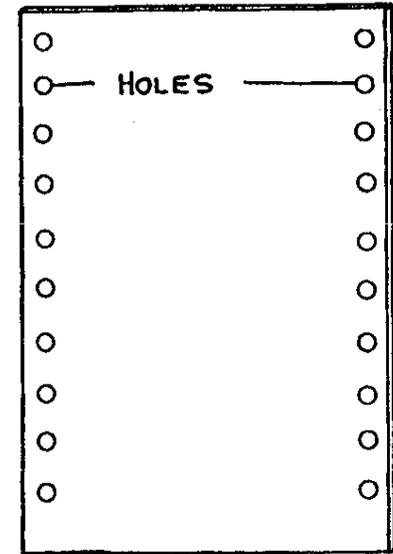
Magnet boards and strips



Use the thin sheet metal from a can or disused car panel, steel shelf, filing cabinet, fridge door or even a sheet of corrugated iron (possibly flattened). You may paint the surface matt black to act as a chalkboard. Magnetise small pieces of metal to attach pictures to the sheet. Magnets can be painted white making them less visible on white paper. Pictures that are used regularly can have small magnets permanently attached to their corners. A strip of metal from packing case strapping can be nailed above the chalkboard (display area). Magnets can then be used to hold large posters

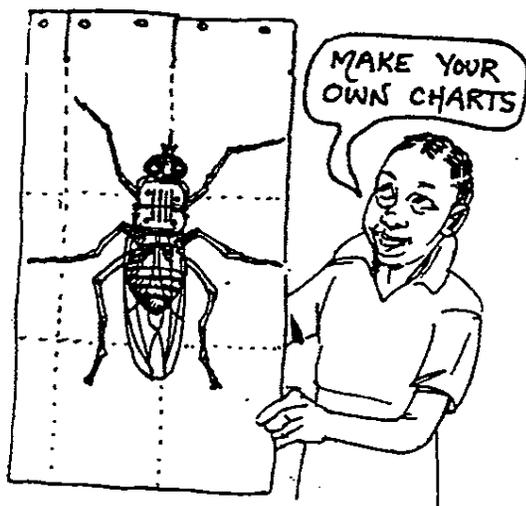


BOARD
OF
CARDBOARD,
WOOD,
PLYWOOD,
HARDBOARD...



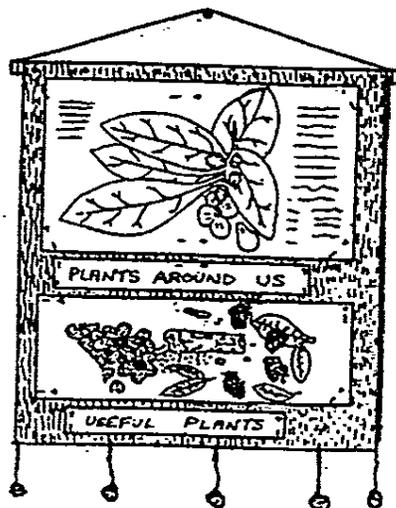
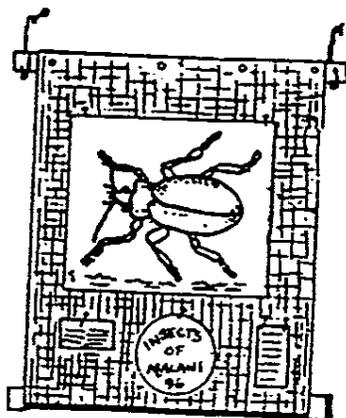
WHICH WOULD YOU CHOOSE?

Size and storage of charts

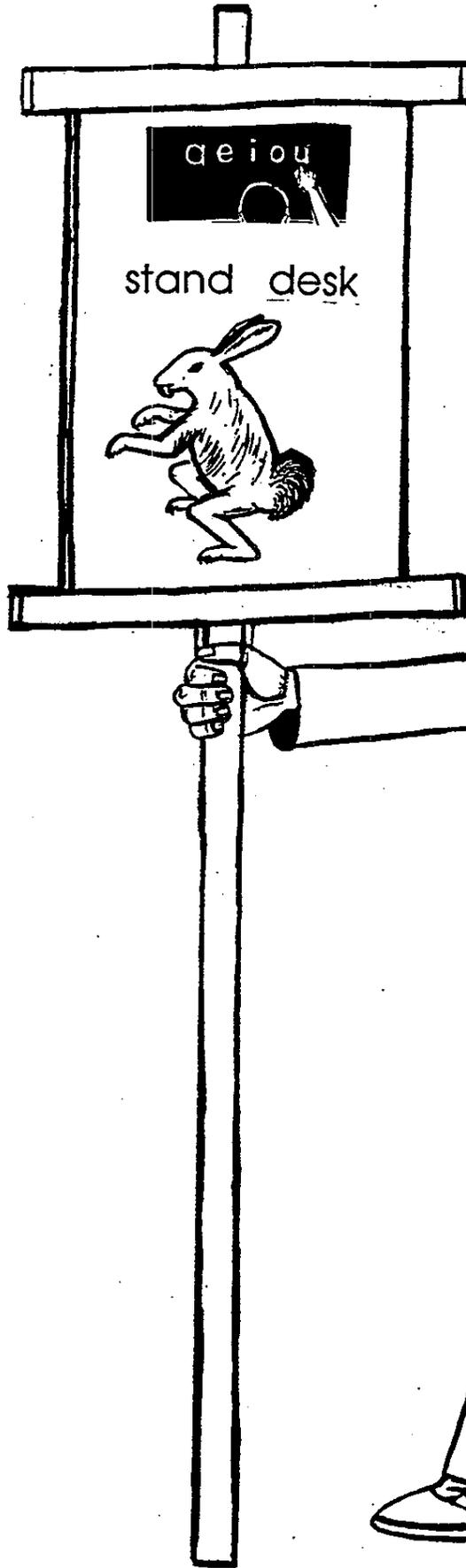


- If charts and posters are not stored safely they are often spoiled. Valuable time, effort and money is wasted! Teachers often find it hard to get enough chart paper. A school pupil sized note book may be the answer. Easily available and teachers often have their lesson notes in similar sized books.
- Remove the staples from a new writing book and open out the double pages (often A4 in size).
- Two, three or more double paged sheets can be joined together to make larger sized charts of different proportions.
- Pupils can help to design and illustrate school charts and posters.
- To store, fold along the original fold lines and return inside the book cover and then store flat under similar sized books.
- Build up an ever increasing library of different sized charts, which are all stored between note book covers of the same size!

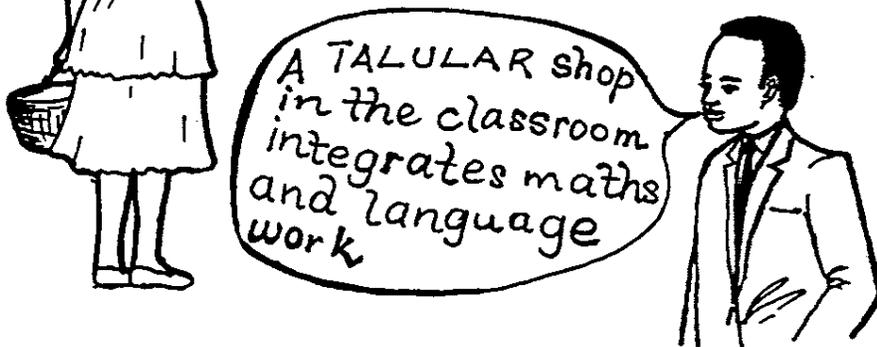
Display charts



Make display charts from durable cement bags, cloth, cardboard boxes, sleeping mats or blankets. To help the chart hang flat and give strength and durability, attach sticks or strips of wood to the top and bottom of the chart. Attach pictures and posters with office pins, cactus needles, sharpened matchsticks or palm frond vanes (broom). Instead of a bottom stick, bottle tops can be used as weights.



Bamboos and poles provide a good frame for cardboard to make a display board



Activity 2

Working in groups:

- describe some of the forces which might destroy teaching and learning resources
- give examples of what you can use for storage to overcome the burden of making them every now and then.

Report your work in a plenary after 15 minutes. Reporting time is 20 minutes.

Feedback

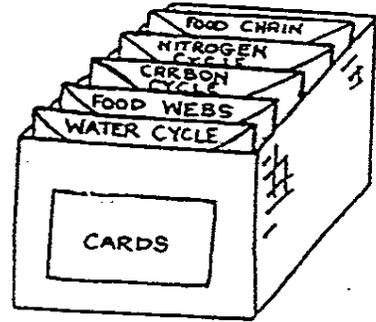
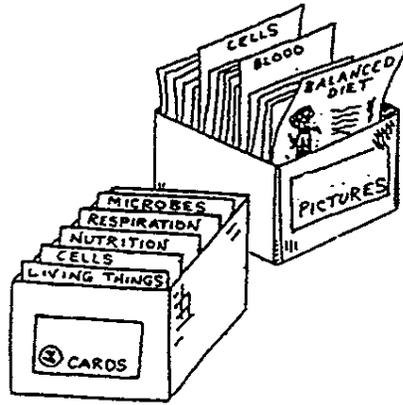
Forces that might destroy talular resources include the following:

- termites
- borers
- damp which encourages the growth of fungi
- wind
- rain
- dust
- mishandling
- vermin such as rats or mice

You can use the following for storage:

- cartons
- hangers
- wooden boxes
- old suitcases
- sacks
- plastic carrier bags
- cloth carrier bags
- tins
- baskets
- bins
- bottles
- buckets
- trays
- plates
- lids
- shoe polish cans
- match boxes
- envelopes
- folders
- toilet paper tubes for holding rolled charts for stacking
- shelves made with sticks, reeds, bamboos, wood or bricks
- cupboards made with bamboo, nails and cardboard
- sleeves of old shirts tied or sewn at one end to make pockets
- trousers cut from old pairs of trousers, tied or sewn at one end to make bags or pockets

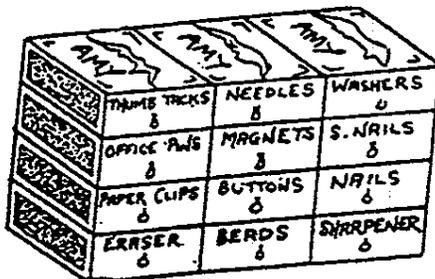
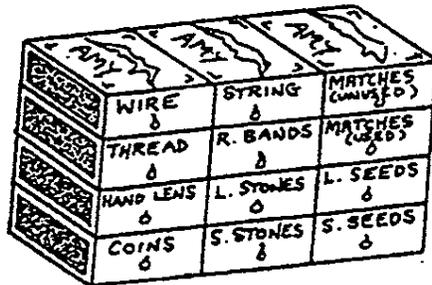
Other storage ideas



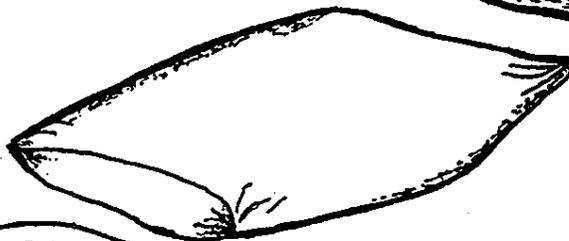
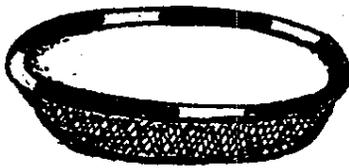
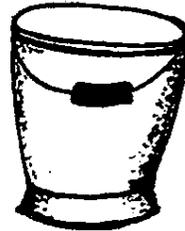
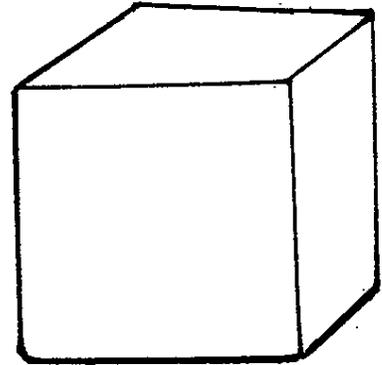
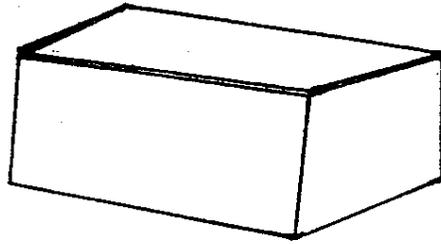
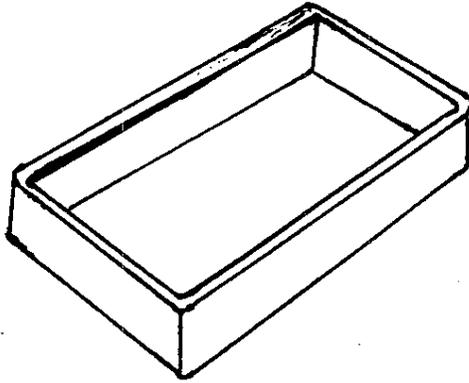
Pictures and cards can be stored in suitably sized boxes. Order them alphabetically or according to the syllabus. Compartments and dividers can be made from cardboard.

Envelopes and bags of all sizes can be used. Clearly label all items, especially if being handled by others.

Storage boxes



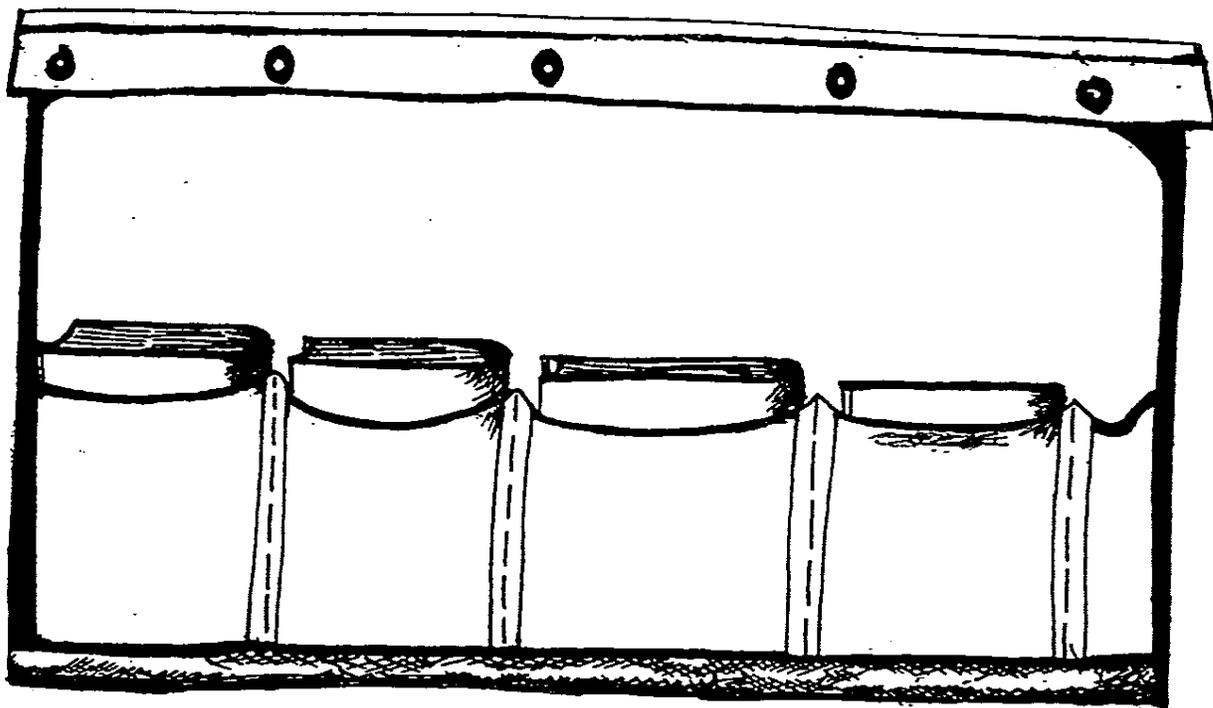
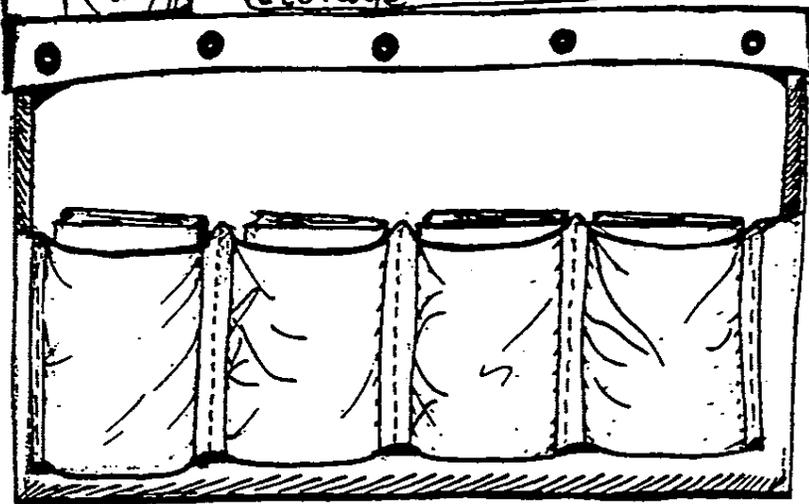
MORE STORAGE FACILITIES

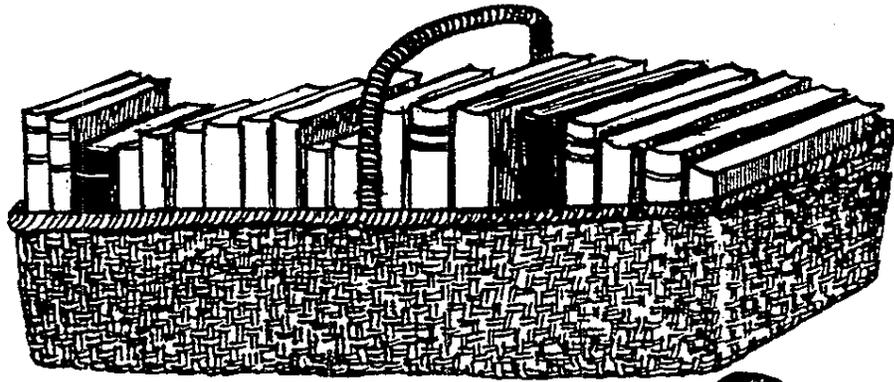


Store your **TALULAR**
 for sustainability
 and relieve yourself
 of the burden of making
 the same resources
 all the time!



Fertilizer bags provide good material for making pockets for storage.





There is a considerable diversity of facilities for storage



Human resources too, should be nurtured and protected for sustainability



The quality of chalkboard use depends on constant planning and practice. Well-prepared and clear use of the chalkboard is not only effective for teaching and learning, but also an example to the class of the standard of quality of work you expect them to present. However, overuse of the chalkboard breeds monotony and boredom. There is a vast range of resources available for use together with the chalkboard or used without the chalkboard to create variety and promote effective teaching and learning. The golden rule concerning their use is always to check their quality and appropriateness for the intended purpose.

Sustain the life of talular resources by storing your resources appropriately. Guard against the forces that may destroy your resources. If by any chance some of them get damaged, repair them and renew those that get too old to sustain learners' motivation. Charts should be rolled and stacked. Those charts that have frames can be hung on nails. Storage of resources enhances the establishment of a **Talular bank** or a **school resource centre**. It is a great advantage if the school has a room for storage of teaching and learning resources.

Using displays for teaching

Here are a few examples of how you can use displays for teaching:

Making reference

- During drill with new words, ask a pupil to match a word or picture or object with a word on the word grid you have displayed on the wall.
- Call out a word or number and let learners identify the word or number on the word grid or number grid.
- Point to a word or number on the word or number grid and let learners identify a card on the table or floor that has the word or number.
- Ask a learner to identify a word or number on the word or number grid and let another learner pick up a card that has the word or number.

Identifying words or numbers on the display tree

- Tell pupils you have a strange tree which has different types of fruits.
- Take a set of cards with the same words or numbers you have displayed on the tree.
- Tell the learners that you have names of the various fruits hanging on the branches of the tree.
- Let individual learners go and pluck a fruit that you mention.
- Tell the learners that those who fail to pluck the right fruit will have nothing to eat.

Labelling parts of a drawing

- Remove all the cards that bear the names of the parts of the drawing, assuming you wrote the labels on cards and pinned them on the chart.
- Ask learners to put back the label cards in their appropriate places.

Using the flannel board display

- Teach vocabulary by matching words with words. You put a word card on the flannel board. Remember to press over the card so that the cotton wool holds the card to the board. Ask a pupil to pick up a card with the same word and let him/her put it next to the other card on the flannel board.
- Teach vocabulary by matching words with pictures. You put a picture on the flannel board. Ask a pupil to find a name card and put it beside the picture.

- Teach vocabulary by transformation, that is, the technique of adding new words and making or writing a sentence with the new words without changing the meaning of the sentence. For example, display an illustration of someone carrying a bag or a big load:

Put up a card, **but** on the flannel board and say:

Tamala is carrying a bag.

The bag is heavy.

The bag is heavy, **but** Tamala is carrying it.

Let pupils practise the third sentence with other situations. For example:

The stone is heavy, **but** Fullar is carrying it.

Put up another card **although** on the flannel board. Tell learners that we can say the sentences with **but** in another way without changing the meaning of the sentences by using the word **although**:

The bag is heavy, but Tamala is carrying it.

Although the bag is heavy, Tamala is carrying it.

The stone is heavy, but Fullar is carrying it.

Although the stone is heavy, Fullar is carrying it.

Let learners come up with their own sentences in which they use the word **although**. For example:

Brenda's parents are rich, but she dresses in rags.

Although Brenda's parents are rich, she dresses in rags.

Tell learners that **but** and **although** are never used in the same sentence.

- Teach plurals by putting the card with the singular form of a word on the flannel board. Ask a pupil to pick up a card with the plural form of the word and place it opposite the singular word.
- Teach synonyms, that is, words similar in meaning by putting a word on the flannel board. Ask a pupil to pick up a word similar in meaning to your word, and place it opposite your word on the flannel board.
- Teach antonyms, that is, words opposite in meaning, by putting a word on the flannel board. Ask a pupil to pick up a word opposite in meaning to your word and place it opposite your word on the flannel board.
- Teach recognition of words by putting a word on the flannel board. Say to the learners, "Class, what does this say?"

- Develop a story on the flannel board. Number the illustrations that go with your story in the order you are going to present them. Put an illustration on the flannel board and match with that part of the story you are talking about. Do the same with the illustrations until you complete the story. You may describe the steps followed in a recipe very easily in a similar way on the flannel board.
- Teach recognition of numbers by putting a number on the flannel board. Say to the learners, **“What number is this?”**
- Teach the four process in mathematics: addition, subtraction, division and multiplication, by putting number cards and mathematical symbols on the flannel board to create a mathematical sentence. Ask learners to work out the sum in their exercise books. Tell them you have a pile of cards with answers to the mathematical sentences on the flannel board. Ask a pupil to pick up an answer and complete the sentence on the flannel board.
- Teach geometrical shapes: rectangle, square, circle, triangle, cone, cylinder and polygon, on the flannel board. Put the card with a geometrical shape and say to the class, **“What figure is this?”**

Using the bulletin board display

- Give assignments by putting the assignment paper on the bulletin board. Tell learners there is an assignment on the board for everyone to do.
- Ask about news items by asking about articles on newspaper cuttings you have displayed on the bulletin board.
- Teach vocabulary by referring to some words in the newspaper cuttings. Give the meaning of a word that is used in the newspaper articles. Ask learners to give the word.

Teachers and teaching

A teacher must be in charge of the classroom, and failures of teacher self-discipline, such as constant lateness, an observable dislike of the work resulting in lack of thorough preparation, bad technique, shortage of knowledge, and so on will detract from authority and order, inviting chaos into the classroom and lowering pupil learning and achievement.

Teachers appear to suffer greatly from monotony in their teaching and the inertia that goes with it, the lack of will to use TALULAR, killing the joy that should be part of teaching and learning. Bored teachers create bored pupils and lead to the attendant classroom problems. The reasons for this include the constant repetition of teaching points in the same classroom situation, the persistent need to play the teacher's role, and the energy needed for daily enthusiasm. It is brought about by having to wait for equipment that never comes, or by accepting boring ways of teaching as normal, having developed a resigning attitude that after all, the government that is expected to provide teaching and learning resources has failed to do so!

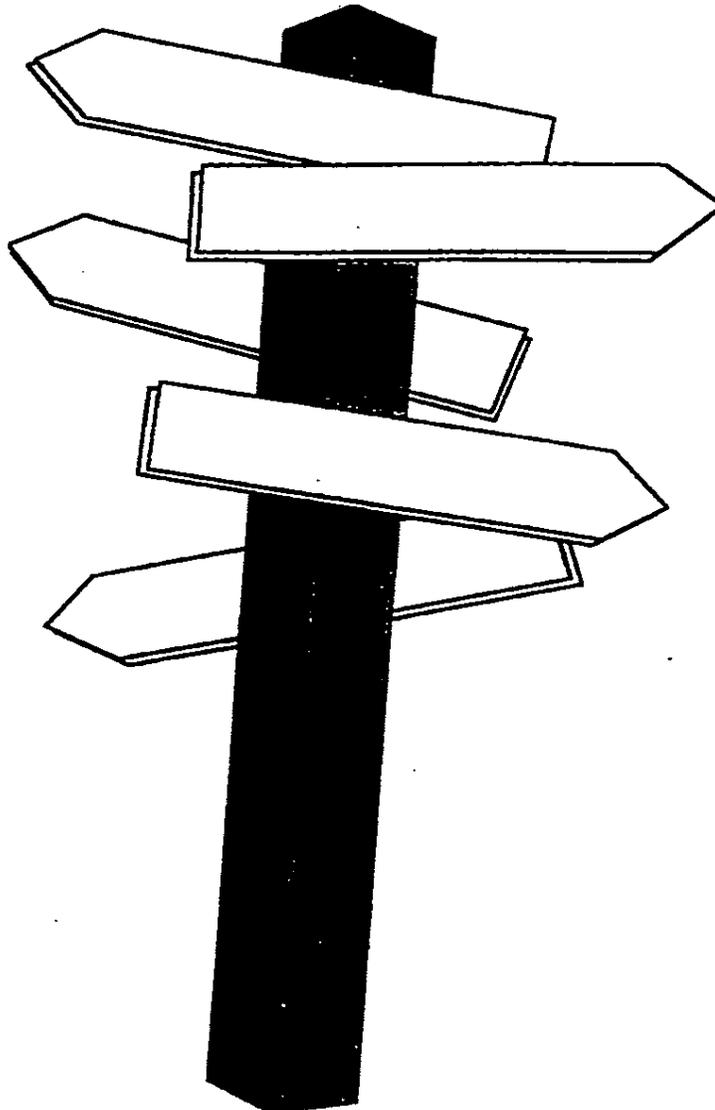
Teachers need encouragement, training in the TALULAR initiative. They need to engage in reflective teaching, classroom research and meet regularly to come up with innovative ideas for the management of learning to achieve the goal of quality education. Above all they need to continue to grow professionally to gain more knowledge and skills for good teaching in their daily grind. Little knowledge is dangerous, goes the saying. People around teachers should not say as Fuller (1959) puts it:

"...for kings indeed we have," they said, "who wear the marks and assume the titles of royalty, but as for qualities of their minds, they have nothing by which they are to be distinguished from their subjects."

Teaching is enjoyable for those teachers who are more knowledgeable and committed to their work. They show that they are not teachers simply by title. They demonstrate their enterprise through skilled actions.

Teachers should know the school's specific aims or goals, how it works and how they can play an effective part in it. They should look for ways of using locally available resources. Also, investment in teachers should include training and rewards of promotions and prizes for any successes and improvements in curriculum implementation to motivate the teachers.

A farmer does not miss a harvest, goes the saying. How can teachers develop concern for the success of every learner as an individual? Providing adequate educational resources such as TALULAR and care that are needed by the learners is one aspect of creating better education for all learners. TALULAR fuels the teaching that fires quality learning through experience, expertise and excellence!



WHICH DIRECTION ARE WE GOING ?

“Quality is never an accident. It is always the result of high intention, sincere effort, intelligent direction and skillful execution. It represents the wise choice of many alternatives”

(Weekend Nation, May 31-1st June 2003)

BIBLIOGRAPHY

- Banda, M. et al. (2002) *Treasuring the Gift*, Lusaka Interfaith HIV/AIDS Networking Group, Project Concern International, Zambia
- Barth, J.L. et al. (1987) *Audio-Visual Handbook*, Malawi Institute of Education, Domasi, Malawi
- Byers, A. (2000) *What is TALULAR?* Malawi Institute of Education, Domasi, Malawi
- Byers, A. et al. (2001) *An Introduction to TALULAR*, Malawi Institute of Education, Domasi, Malawi
- Catherall, E.D. (1986) *Investigating Areas*, Wayland Publishers Limited, Sussex, England
- Chipeta, D.P. (1999) *Curriculum theory and teaching Techniques for teachers and Supervisors*, Olive Publishing House, Mzuzu, Malawi
- Costa, A.L. et al. (1999) *the Diagnostic Teacher*, Teachers College Press, New York
- du Plessis, J. (2002) *Continuous Assessment Manual*, American Institute for Research, Arlington, Virginia
- Farrant, J.S. (1980) *Principles and Practice of Education* (2nd ed), Longman Group Uk, Ltd
- Freeman, J. (1992) *Quality Basic Education*, International Bureau of Education, UNESCO.
- Freire, P. (1972) *Pedagogy of the Oppressed*, the Continuum Publishing Group, New York
- Fuller, E. (1959) *Lives of the Noble Greeks*, Dell Publishing Co., Inc, New York
- Garratt, J. (1996) *Design and Technology*, Cambridge University Press
- Hope (1999) *Education, International Edition*, Orb Mill, Oldham, Lancashire, Uk
- Kyriacou, C. (1994) *Essential Teaching Skills*, Simon and Schuster Education
- Nacino-Brown, R. et al. (1994) *Curriculum and Instruction*, Macmillan Education Ltd, London
- National Aids Control Programme (2000) *Peer Educator's Handbook*, Lilongwe, Malawi
- Njangi, S. and A. Berluti (1991) *Primary Art and Craft*, Macmillan Kenya Publishers Limited
- Nyirenda, D.M.C. et al. (2002) *Sexuality and Reproductive Health*, Malawi Institute of Education, Domasi, Malawi
- Saunders, D.J. (1984) *Visual Communication Handbook*, Lutterworth Educational Guildford, Surrey, UK
- Seliger, M. (1982) *Handbook for Educational Graphics*, Malawi Institute of Education, Domasi, Malawi
- Tony and Bell, M.E. (1997) *Maths Now!* Teacher's Resource File, John Murray Publishers Ltd, London
- UNFPA/UNESCO (1998) *A Sourcebook for population education in Malawi*, Malawi Institute of Education, Domasi, Malawi
- Woods, P. (1995) *Creative Teachers in Primary Schools*, Open University Press, Buckingham, UK
- Zembeni, G.H. (2002) *Banking Education vs Participatory Approaches*, Malawi Institute of Education, Domasi, Malawi