

California Museum of Science and Industry



PROVIDING FOR TODAY, PRESERVING TOMORROW

Balancing Acts

Educational Programs Manual



Balancing Acts

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General Information



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EXHIBIT OPERATION

Providing For Today, Preserving Tomorrow

- Staffing - Our peak visiting hours were in the morning from opening until 2:00 p.m. when the school groups left on Monday-Friday and from 11:00 until closing on the weekend. We stationed staff at:
- School Groups - We do not offer reserved experiences in our temporary exhibit areas. We had a signup sheet at our Educational Experiences Greeting Cart and classes could reserve spaces in the workshop area. On the weekend, whoever arrived first, when the public address announcements were made, got to participate.
- Scheduling - Activity presentations and workshops were scheduled every twenty to thirty minutes during peak visiting hours.
- Crowd Control - Visitors paced themselves in their movement through the exhibit. Because the exhibit is physically blocked off into three sections: Agriculture, Energy and Manufacturing, there was not a large problem with groups of people being drawn to and crowding around one particular exhibit element at one time. However, there was often a little congestion around the Wind Chamber as people waited for a chance to get in. Small groups would also crowd into the worm farm area.
- Workshops - The workshop/demonstration area is separate from the rest of the exhibit. This helped keep the participants focused and reduced crowding during the workshops.



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SAFETY AND SECURITY

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Helpful, attentive staff in the exhibit at all times is the key to a memorable, safe learning experience. Staff need to constantly circulate in the exhibit area, adding to explanations and assisting visitors with any needs. All areas are easily evacuated in the event of an emergency. Back areas need to be covered by staff as they circulate through the exhibit. All cabinets should be kept locked during opening hours.

- Balinese Temple - Although we did not have any problems with visitors "roughing up" the temple, it should be noted that it is not very sturdy and should be treated as an artifact.. Visitors should be discouraged from standing on the bench portion of the temple. It should be monitored regularly to ensure that noone is doing anything that could lead to their own injury or damage to the temple.
- The Globe - The globe will be above the heads of most children and out of reach; however, it will be within reach of adolescents and teen-agers. We did not have any problems here, but the paper triangles can be torn off if visitors are allowed too close.
- Wind Chamber - The airfoils that visitors use in the chamber are foam. Visitors should be monitored frequently to ensure that the airfoils are not being mistreated.



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DEMONSTRATIONS

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We are drawn to sounds, movement, and color. We notice the biggest, the brightest and the fastest moving items, but mostly we are attracted (or distracted) by change - the new sound, or the new movement. For a successful presentation, you want to maintain the audience's attention. Be aware of where your audience is focused. Do things to draw them back to you constantly. Here are some ideas to make your presentations a success:

- **Keep it conversational.** The material should be reviewed for content before every presentation to insure the accuracy of the information rather than memorized word for word. Audiences don't have a script to follow and will go where their excitement takes them.
- **Keep it short.** With so much going on, attentions will be easily and quickly distracted. 5-15 minutes is as long as an audience will sit still. There's too much to see and do!
- **Announce that there's going to be a demonstration.** Tell the audience how long it will take so they can plan their time.
- **Keep it simple.** Audiences often range in age and understanding. Going into detail, is a good way to lose your audience. If a visitor wants more information, invite them to stay for a more in-depth conversation at the conclusion of the demonstration.
- **Be animated.** Remember, you're competing with the rest of the exhibit for the visitor's attention. You must be brighter, faster and funnier.
- **Try to work with a partner.** The second person can handle the worries of crowd control, handing over supplies and dealing with visitor disruptions as well as lend moral support.
- **Quickly get a feel for your audience.** Discover what works and if it doesn't, change it. Don't take a rough crowd personally - every audience is different and a new opportunity to learn.



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WORKSHOPS

Providing For Today, Preserving Tomorrow

- Ask open-ended questions. "Why do you think that happened?" "How do you think this works?" This encourages independent thinking and develops creativity.
- Use simple language. Make sure you are communicating clearly to your audience.
- Make what you are talking about real to your audience. How does this idea relate to real life? How do they apply these principles in their daily lives?
- Don't try to do or know everything. It's okay not to have all the answers. You can always ask the participants where they might find the answer to their questions. The workshop should be fun, not a lecture. If you don't know the answer to a question, look it up for next time.
- Share yourself. Let your excitement and enthusiasm show! It's contagious. Demonstrate how everyone uses science in everything they do. Use eye contact to connect with your audience.
- Involve the kids as much as possible. Use volunteers from the audience. Use as many participants as possible. Encourage curiosity, interest and excitement. Encourage experimenting, not "right answers".
- Enjoy the kids and their enthusiasm. Children are naturally inquisitive. Use it to create an exciting, positive experience that encourages them to explore further.
- Adapt to the group. Use age appropriate language and adjust the workshop to the age, ability and number of children in the group. Adjust explanations to a level that the participants can understand. Be flexible and adaptable.



PROVIDING FOR TODAY, PRESERVING TOMORROW

Balancing Acts

Workshops



Balancing Acts

SOLAR PUMP

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Materials: (Cooperative groups of 4)

40 voltaic cells

Connecting wire

8 motors

8 pumps

Trays, pie pans or other shallow containers

Measuring cup or graduated cylinders

Background:

Photovoltaic cells convert solar energy into electrical energy. In this experiment we will use them to run an electric motor. The electric motor, in turn will run a small water pump. The operation of the pump requires additional electrical energy than is required with the motor alone because water is being moved and because the pump has internal friction. Thus, even though a motor may work with a single cell, when connected to the pump it may not pump water. To increase the output of the pump, it is necessary to use two, three and four cells connected in parallel. Cells can be connected in parallel if all green wires are connected together and black wires are connected together.

Getting Started:

How can we use solar energy to move water?

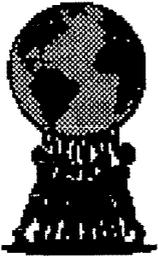
How can we wire photovoltaic cells to a pump?

How can we pump more water?

How can we connect more than one photovoltaic cell?

Explore:

Begin this project outside and remember to angle the PV's toward the sun. Experiment with a variety of items that will hold the PV's at an angle. Connect one PV to the motor and the pump. Try adding a second PV and see what happens. How much water is being moved? How can you measure the amount of water that is being pumped? What happens if you cover a portion of the PV cells? What happens when you cast a shadow over the PV cells? What happens if you wire three or more PV's together? What is the difference when the PV's are connected in parallel? How can we record our findings?



Balancing Acts

PINWHEEL

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Materials:

Squared paper
Scissors
Masking tape
Magnifying glass
Stapler
Straw
Push pins

Background:

The pinwheel spins because the lens of the magnifying glass concentrates the sun's rays heating up the air underneath. The warm air is lighter and more buoyant than surrounding air. The lighter air rises turning the pinwheel.

Getting Started:

How Can you make a pinwheel turn by using the sun's rays? What happens when you focus the sun's rays over different places on the pinwheel?



Balancing Acts

THERMOMETER

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Materials: (For one thermometer)

Small glass jar (with narrow opening)

Clear drinking straw

Red food coloring

Plasticine modeling clay

Background:

Warmth from your hands causes the air in the bottle to expand. As it expands, it exerts pressure on the reservoir of water in the jar. Because the jar is carefully sealed, the expanding air pushes the water up the straw.

Getting Started:

What are thermometers used for?

How do thermometers work?

How can you construct a thermometer?

Explore:

Fill the glass jar approximately half way with water (dyed red with a few drops of red food coloring). Stand the jar at a slight angle or cut the bottom at a slight angle. Seal the top of the jar and edges with the plasticine clay. Charge the thermometer by adding a few drops of the red water through the top of the straw. Place your hands around the jar and observe what happens. How long did it take before observing a change in the water level of the straw? What happened when you took your hand off the jar? How do we record our observations? What predictions can we make about thermometers?



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WORM TERRARIUM

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Materials: (For one terrarium)

Glass jar

Tape

Worms

Plastic wrap

Damp Soil

Grass Clippings

Background:

Earthworms burrow through the soil and turn rotting plants and animals into rich fertilizer. As they burrow they create spaces for air and water. When the burrows are flooded the worms come up to the surface.

Getting Started:

What do worms do?

Why are worms important?

How do worms change our Earth?

How can we utilize "worm power" in our environment?

Explore:

Fill a jar with damp soil and add worms. Place grass clippings over the soil. Cover the top with plastic wrap that has air holes poked in it for the worms to breathe. Keep the jar in a dark place or wrap dark paper around the jar. What will happen inside the jar? What will happen to the grass clippings? Make predictions as to what will happen inside the jar during one week. What will the worms be doing? What else can you do with this activity? How can we record our findings? Why are worms important? How might your garden change if it has worms?



Balancing Acts

SOLAR OVEN

Providing For Today, Preserving Tomorrow

Materials: (For one oven)

Cardboard shoe box
Aluminum foil
Manila file folder
Straightened wire coat hanger
Black construction paper or black paint

Background:

The curved shape of the manila folder and the aluminum foil concentrate and reflect the sun's heat into the food. The heat cooks the food just like an oven.

Getting Started:

How can the sun's energy cook food?
How can we capture the sun's energy?
What do we need to make a solar oven?
How can we construct a solar oven?
How can we best utilize the sun's energy?
What other contraptions can we invent to utilize solar energy?

Explore:

Line the inside of the box with foil, shiny side out. Cover the outside with black paper or paint the outside black. Cut a file folder in half along the fold, and cover it with foil. Slip it into the box to form a curved surface to reflect the sun. Insert the hanger through one end of the box and poke it through the other side. Try cooking foods like melted cheese sandwiches by leaving the oven out in the sun long enough to melt the cheese. How long did it take to melt the cheese? Try another food. Time how long it takes to cook. How can you record your findings? What modifications did you need to make on the oven? At what time of the day did the oven work best?



Balancing Acts

GLOBE-BUILDING INSTRUCTIONS

Providing For Today, Preserving Tomorrow

The following pages contain instructions that will assist you with the programming needed for the Globe-building event.

Table of Contents:

- Beginning Questions
- Project Time Line
- Job Responsibilities
- Supply List
- Teacher Training Day Information
- Teacher's Guide: "Building A New World"
- Overview of the Globe-Building Day
- Attachments

BALANCING ACTS GLOBE BUILDING INSTRUCTIONS

BEGINNING QUESTIONS

- Who will be the target audience?
(Public Schools, private schools, community organizations, etc)
- How many students will participate?
- What grade levels?
- What space is available for activities at the museum?
- How many and how to recruit volunteers?
- How much time will be allocated for the Event Building Event?

CALIFORNIA MUSEUM OF SCIENCE AND INDUSTRY ANSWERS:

- Public school students from Los Angeles Unified School District, and outlying districts.
- Approximately 1200 students from 35 classrooms in grades 5 and 6. The project was not developmentally appropriate for students in grades K-3.
- On event day, three venues were scheduled for activities:
 - Balancing Acts Exhibit space (Actual globe assembly)
 - 10 education trailers for hands-on science workshops.
 - IMAX theater.
- Approximately 100 volunteers. This included 2 classroom host volunteers and others to be at registration/information areas, hands-on activities, workshops, etc. Our Foundation Department had a volunteer coordinator who helped recruit volunteers.
- The Event Day schedule was from 9:00 a.m. through 1:00 p.m.

PROJECT TIME LINE

MONTHS BEFORE EVENT	ACTIVITY
5	Establish Event Planning Committee. Determine date of event and participants. Assign duties and responsibilities.
5	Send information/recruitment letters to Superintendents of invited school districts (Attachment #1).
5	Send information/recruitment letter to key contact person within districts. (Attachment #2) .
5	Send information/recruitment letter to identified teachers with copy to the principal. (Attachment #3).
5	Make phone contact with teachers/principals of participating schools.
4	Begin volunteer recruitment. (Attachment #4).
4	Order supplies
2	One day teacher training session at the museum. Distribute teachers' supplies at training meeting.
2/1	Monthly phone contact with teachers regarding progress of project.
1	Train staff on event day responsibilities.
1 week	Completed and laminated panels returned to the museum. Check to see that all panels are returned.
1 week	Organize panels in alphabetical order for Event Day.
EVENT DAY	See following pages.

JOB RESPONSIBILITIES

EDUCATION COORDINATOR:

- Oversee Special Event.
- Recruit teacher participants.
- Train and assist teachers.
- Oversee ordering and organization of supplies.
- Check to see that all completed panel pieces are returned.

VOLUNTEER COORDINATOR:

- Recruit, train, and schedule volunteers.

VOLUNTEERS: (See Attachment #5)

- Organize and package supplies.
- Act as Classroom Hosts:
(Assigned to shadow classes on event day.)
- Registration tables.

EXHIBIT DEPARTMENT: 5 exhibit staff (2 from CMSI)

- Assist (supervise) teams of students building the globe.

EDUCATION DEPARTMENT:

- 1 Timer at globe building area to assist in rotations.
- 1 person assigned at each registration area.

PARKING:

- Assist in location for buses.
- V.I.P. parking

PUBLIC RELATIONS DEPARTMENT:

- Collect photo releases
- Publicize event in local media, TV and print.
- Provide media coverage in classrooms as projects are in progress.

SPECIAL EVENTS DEPARTMENT:

- Draft letter for donations and support of the event.

Globe Building Supplies

Provided by CMSI:	Provided by School/ Host Museum:	Optional Items:
<p style="text-align: center;">Black panels</p> <p style="text-align: center;">Paper templates</p> <p style="text-align: center;">Globe hardware and assembly tools</p> <p style="text-align: center;">Globe building teacher guide</p> <p style="text-align: center;">Teacher key</p> <p style="text-align: center;">Plastic H and P templates</p>	<p style="text-align: center;">Substitute coverage</p> <p style="text-align: center;">Bus transportation</p> <p style="text-align: center;">Old magazines for mosaic pieces</p> <p style="text-align: center;">Wall map of the world*</p> <p style="text-align: center;">Atlas* (should have same rendering as wall map)</p> <p style="text-align: center;">White glue</p> <p style="text-align: center;">Double-stick tape (Specified by CMSI)</p> <p style="text-align: center;">Duplicate Teacher Guide (1 per school)</p> <p style="text-align: center;">Duplicate Teacher Key (1 per Teacher)</p>	<p style="text-align: center;">Hard hats*</p> <p style="text-align: center;">T-Shirts</p>

* These items were donated to CMSI.
(See Attachment #6 for a sample donation request).

TEACHER TRAINING DAY

PRIOR TO TRAINING:

- Send letter to teachers with map and directions to the museum (See Attachment #7).
- Prepare and package materials for teachers to take back to their schools:
 - Black panel pieces
Panel pieces should be prepackaged so that each teacher has both land and water pieces to complete.
(See Attachment #8).
 - White paper templates
 - Grease pencil
 - Plastic H & P templates for cutting small triangles (6-8).
 - 2 rolls of double-stick tape (Specified by CMSI).
 - Teacher Packet
- Assign sign-out sheet for supplies and panel pieces to teachers.
(See Attachment #9).
- Review Teacher Training video tape provided by CMSI.

TRAINING DAY:

(SEE ATTACHMENTS #10, 11, 12)

Morning: Training in completion of panel pieces.

Afternoon: Overview of Event Day.

Teacher Packet: Each teacher should have already received a double pocket folder that contains the following:

- List of participants with school phone numbers
- Agenda
- Balancing Acts Fact sheet (Attachment #12)
- Teacher's Guide: "Building A New World"
- Photo Release/Permission forms in English and Spanish.
- Event Day Schedule
- Name Tags

Volunteer classroom hosts should attend training sessions,
if possible.

(Continued)

TEACHER TRAINING DAY (CON'T)

EQUIPMENT:

- TV, VCR
- Overhead Projector
- Chalkboard

SET-UP: (Cooperative Learning Groups)

AGENDA

- WELCOME
- EXHIBIT OVERVIEW: (by Museum Curator)
- VCR CLIP (SKYLINE'S "BUILDING A NEW WORLD")*
- TEACHER'S GUIDE OVERVIEW
(Have teachers work in cooperative groups to complete a panel piece.)
 - Use Blueprint Key to locate 20 Great Triangles
 - Practice using Area Code Number
 - Find locations using latitude/longitude readings
Use wall map, atlas
Discuss topography
 - Use H and P templates to cut magazine triangles
 - Glue magazine triangles onto white paper templates
 - Cut out and laminate white paper triangles.
 - Place white paper template on black panel pieces.
 - Press templates to panel pieces using double faced tape.

HAVE TEACHERS TAKE PRE-PACKAGED PANEL PIECES, TEMPLATES, TAPE, PLASTIC TEMPLATES, etc.

*Provided by CMSI

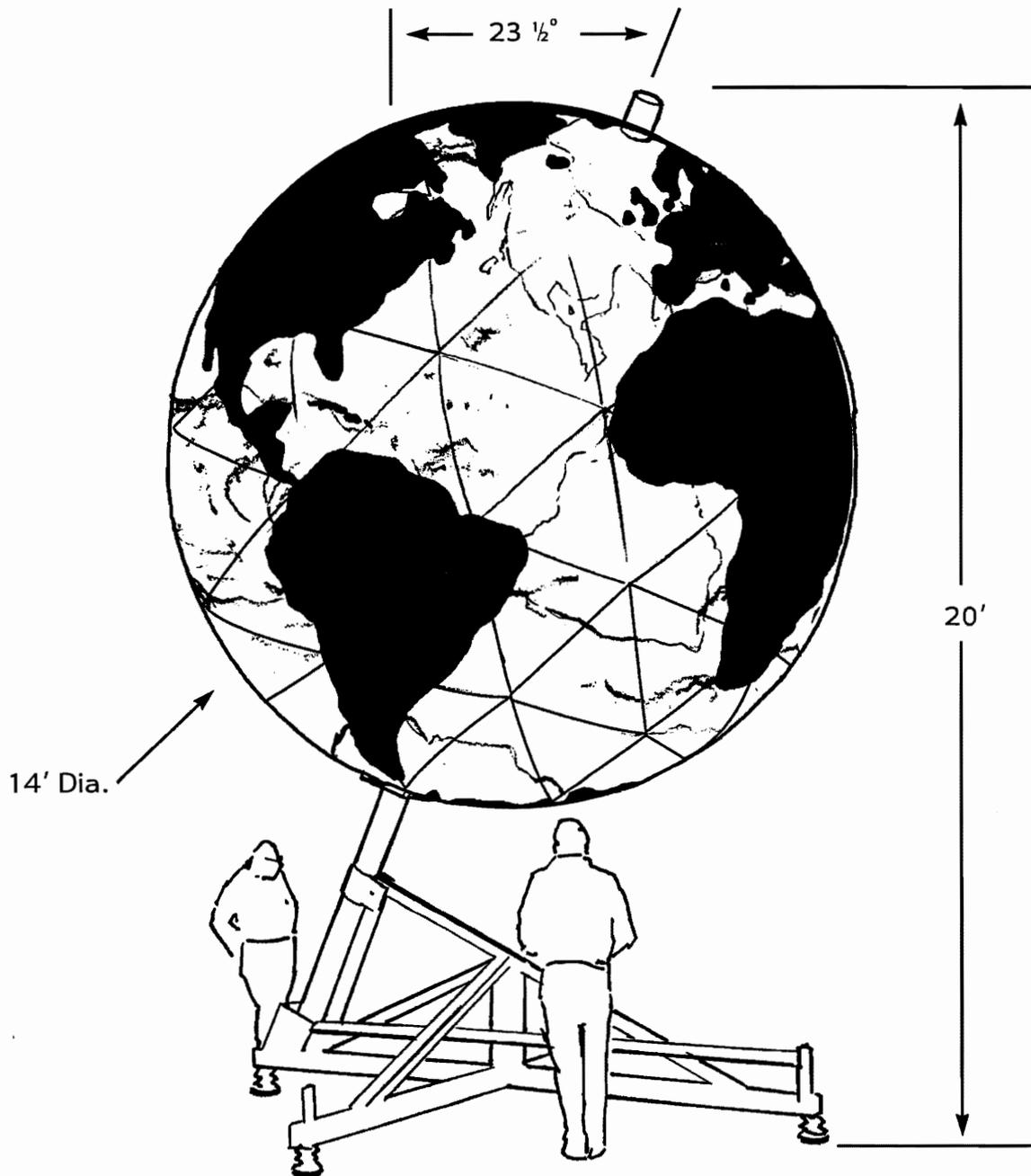


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Balancing Acts

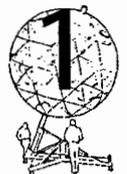
BUILDING A NEW WORLD
TEACHERS GUIDE

29.83 Heigh
34.42 Edge
34.50 Edge
34.50 Edge

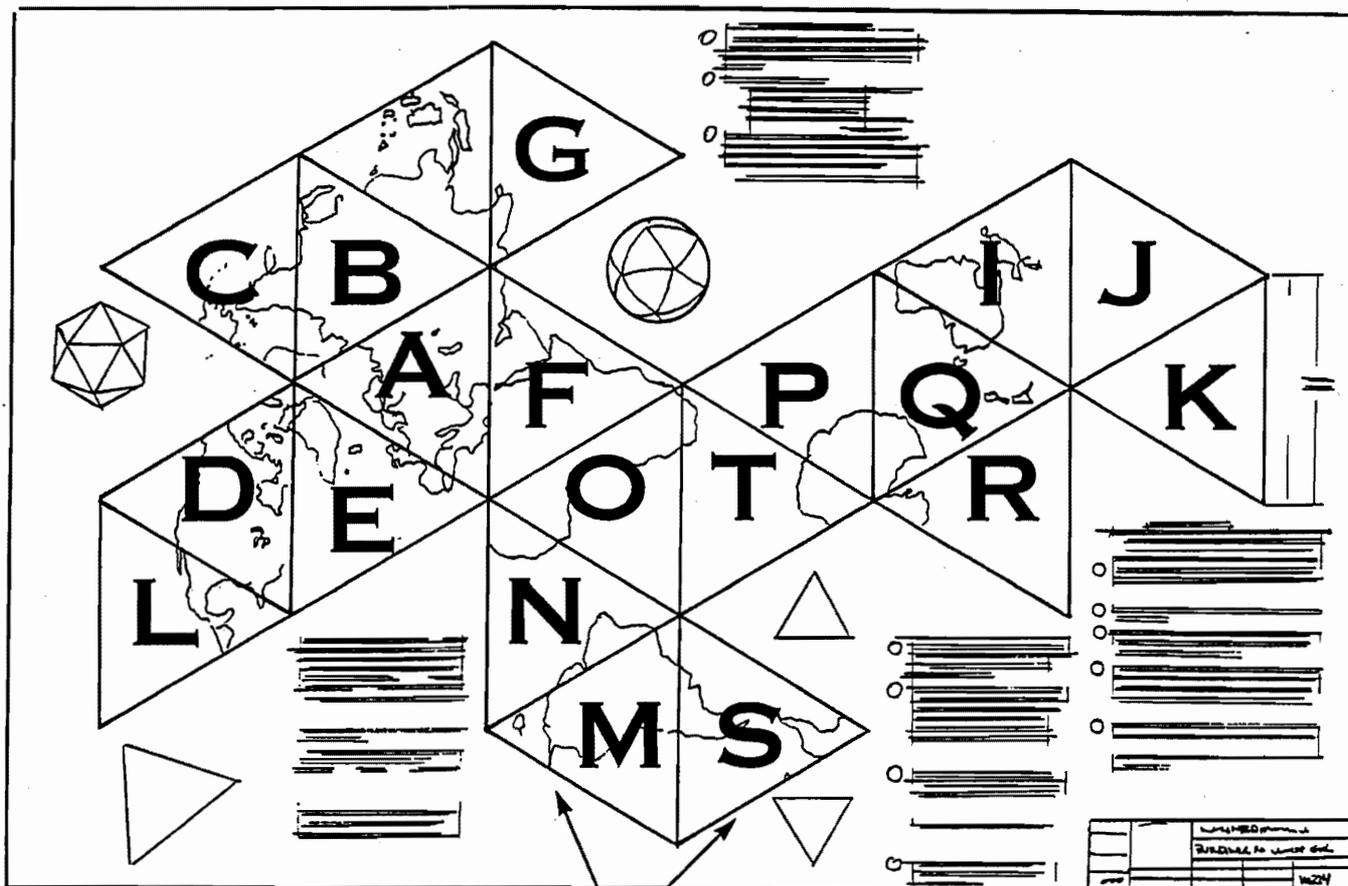


1:3,000,000 EARTH MODEL

We are going to build a model of Earth using colored triangles cut from magazines. Our globe will be 14' in diameter and 20' high. It will spin at a $23\frac{1}{2}$ deg. angle just like our real planet. Clouds will be painted on the surface after all the pieces are assembled.

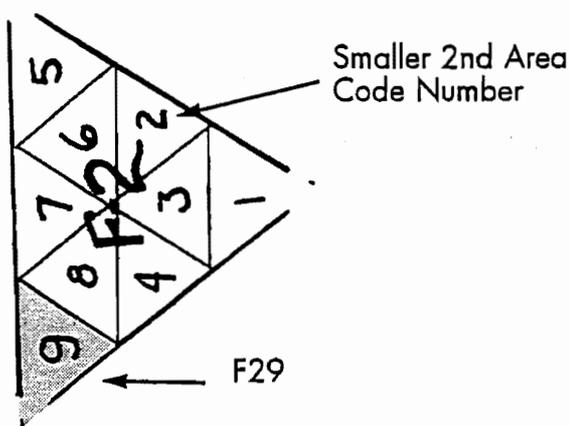
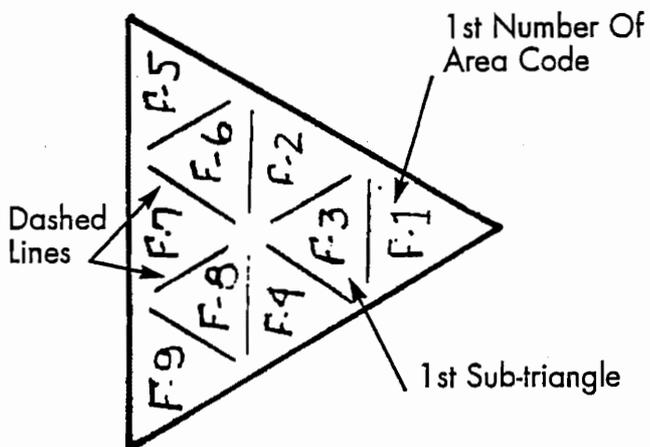


BUILDING A NEW WORLD BLUEPRINT



20 Great Triangles

The letters A-T are labels for the GREAT TRIANGLES that form our model.

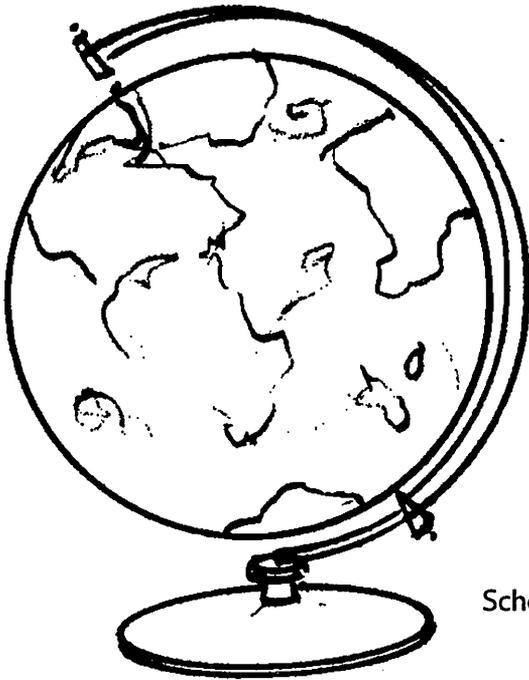


GREAT TRIANGLE 'F' Each GREAT TRIANGLE is made up of 9 smaller TRIANGLES. These first TRIANGLES are labeled F-1, S-2, B-5, etc. They are drawn with dashed lines

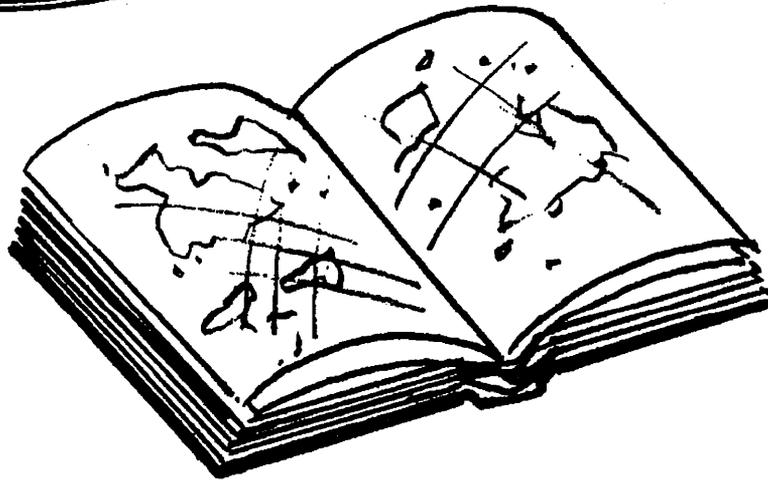
The second number in your area code gives you the exact location. They are the smaller numbers on the blueprint. For this example, the shaded triangle is F-29.



LOCATION



School Globe

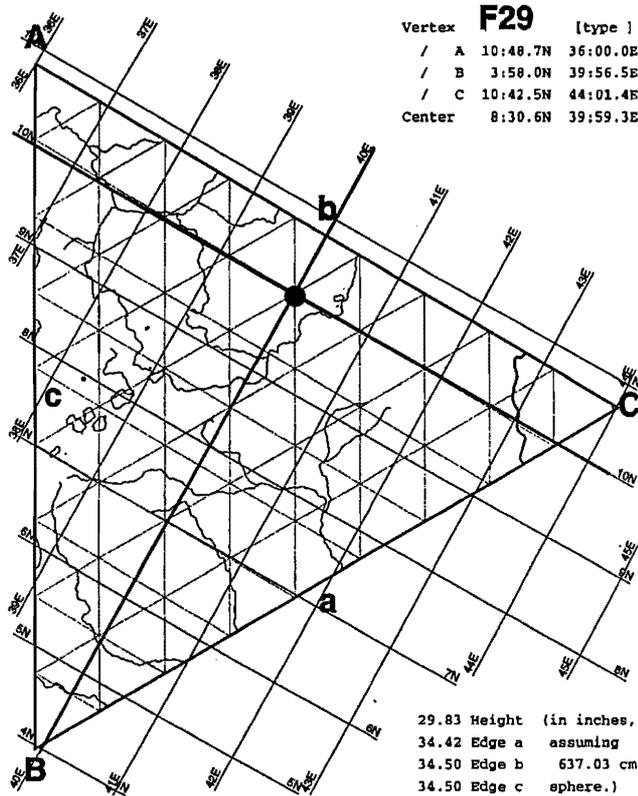


Atlas

There are no names of continents countries, states, cities, rivers, lakes or oceans on the Building a New World Grid.

Your must find your location on the world map, atlas, and other resources.





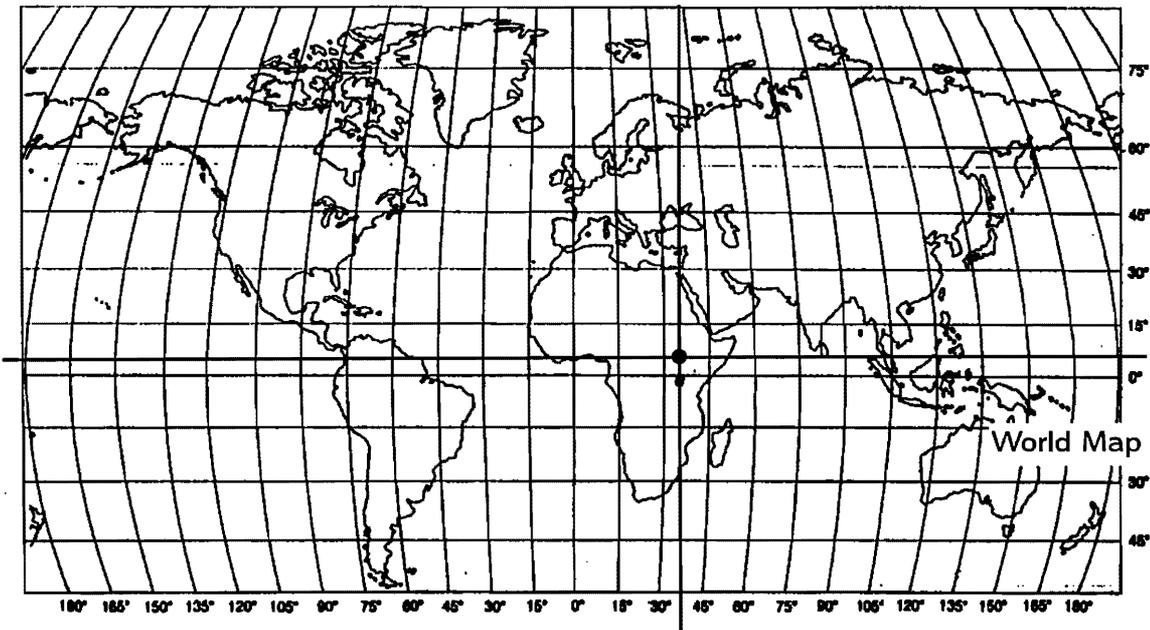
Paper Template

You need to match the Latitude and Longitude lines that cross your template with the same line on your world map and atlas.

Latitude lines run E. and W. in circles around the globe.

Longitude lines run N. and S. from the North Pole to the South Pole.

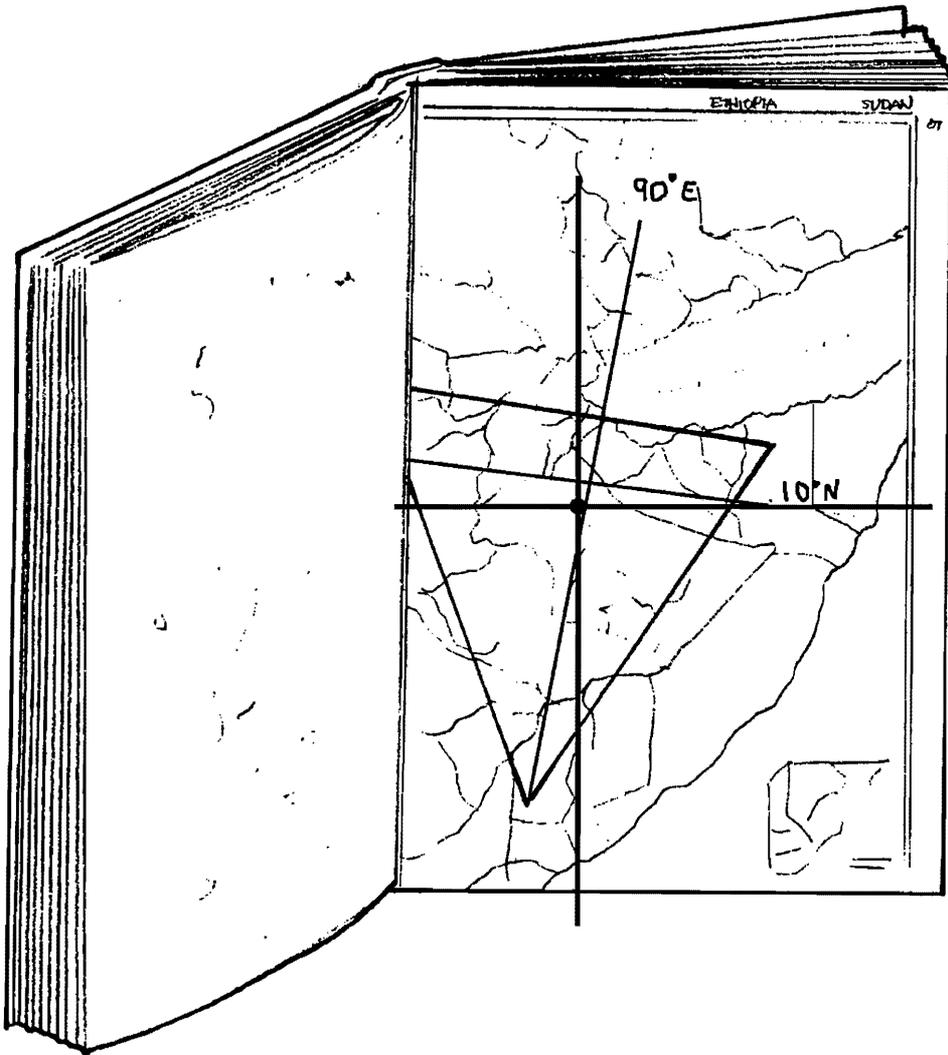
On template F-29 we will use latitude line 10 deg. N and longitude line 40 deg. E for a match.



If we find 10 deg. N and 40 deg. E on the world map, we can see that they meet somewhere in eastern Africa. Look in the atlas pages for a more exact location.



WHAT COLOR SHOULD WE USE?



In an atlas we will find a detailed map of Ethiopia where our lines cross.

Discuss in your groups, the topography of the location on your template. Does it have mountains, desert, forests, oceans, etc?

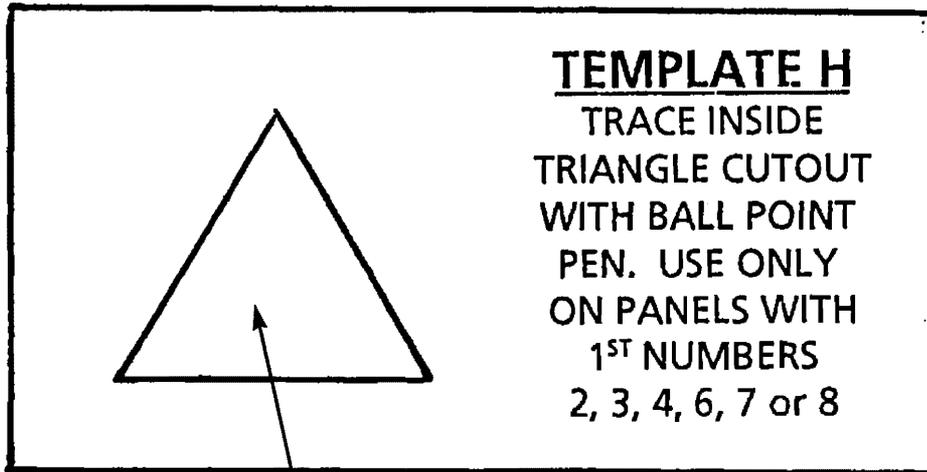
Using the atlas and wall map as guides, use colored pencils to code your template. You will probably need green, brown, yellow, blue and white.



CLEAR PLASTIC CUT OUT TEMPLATES (2 SIZES)

Next, we are going to cut out colored triangles from magazines to cover our colored template.

THERE ARE TWO DIFFERENT SIZES OF TEMPLATES!



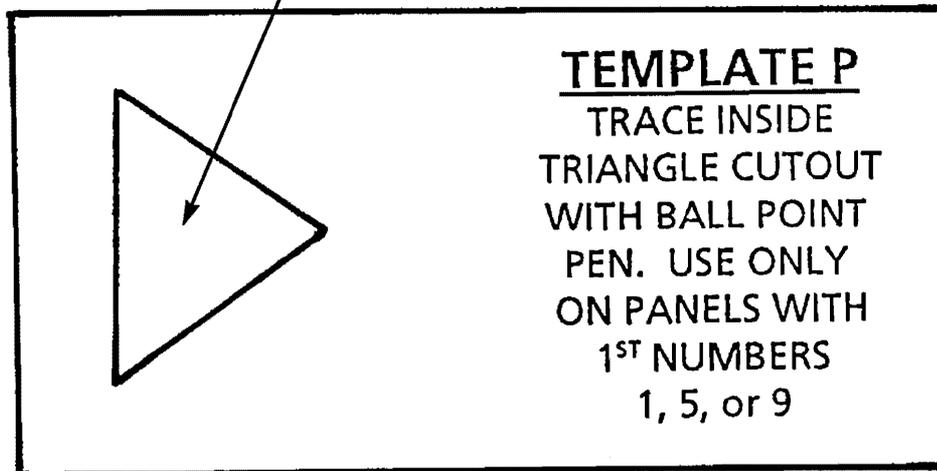
Hexagon Template

Cut Out

TEMPLATE H

Use on codes having 2, 3, 4, 6, 7, 8, as the first number.

i.e. **B-21**
C-36
M-83



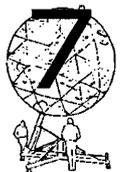
Pentagon Template

TEMPLATE P

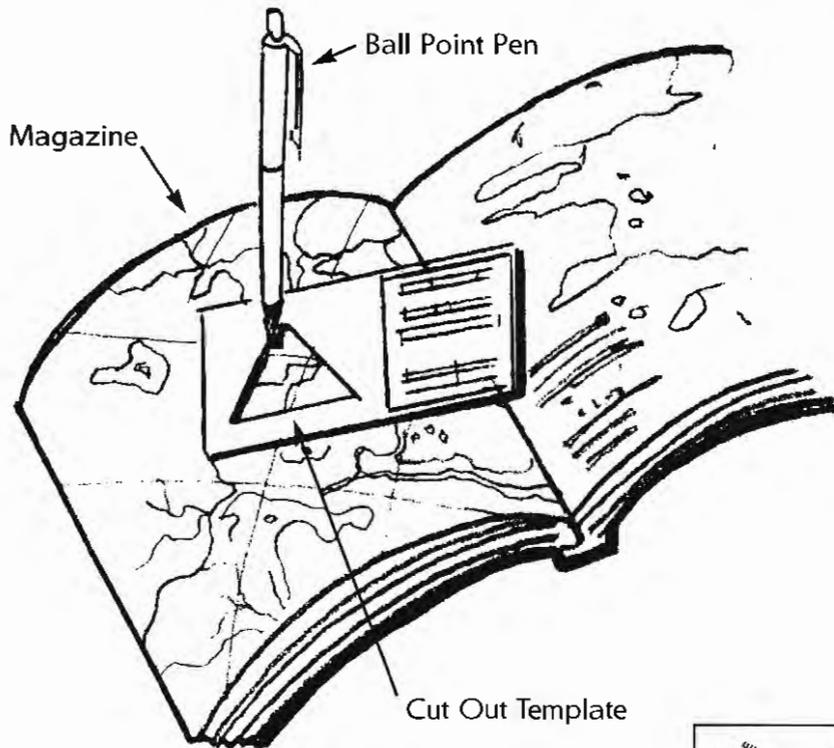
Use on triangles with area codes having 1, 5, or 9 as the first number.

i.e. **F-16**
Q-57
J-91

* may need to bend the plastic cutout slightly to "pop out" the center triangle.



STEPS FOR MAKING TRIANGLES



STEPS FOR MAKING TRIANGLES

1. Place the template on a magazine page that has the color that you want. If it's green look for pictures of golf courses, trees, vegetables, frogs, etc.
2. Use a ball point pen and trace around the inside of the cut out template onto the magazine page.
3. Cut the triangle out.

4. Glue each triangle into place using Elmer's white glue. Put glue on the template or the small triangle.

Try to get a variety of colors, from as many magazines as possible so you don't get a large areas of the same color right next to each other.

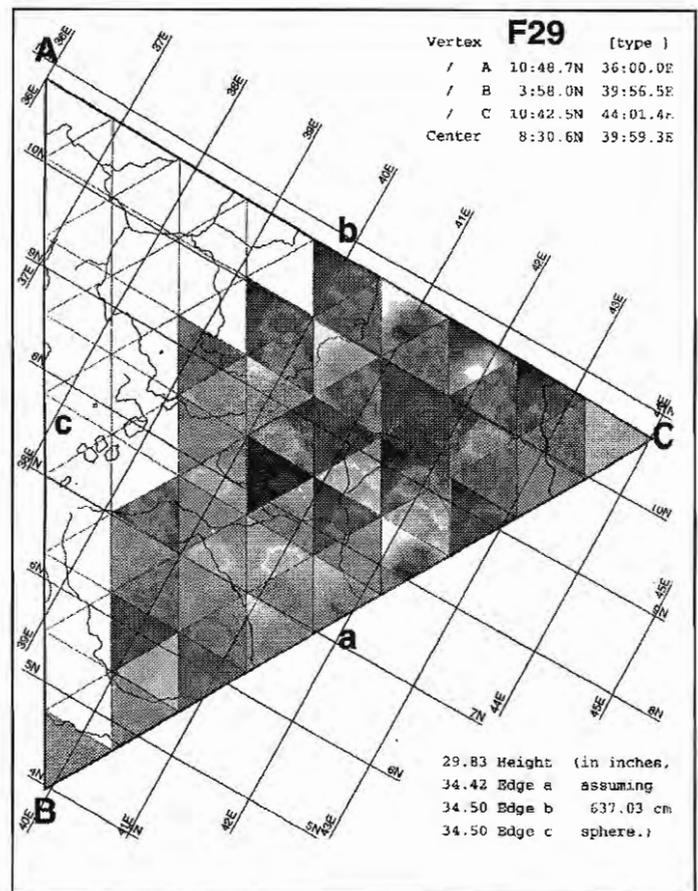
★ HELPFUL HINT ★

- One method is to precut triangles ahead of time and store them by color in boxes.

• PUTTING IN THE DETAILS;

To outline the major rivers, hold your finished template up to a window or an overhead projector and trace along the pre-marked rivers with a permanent thick blue marker.

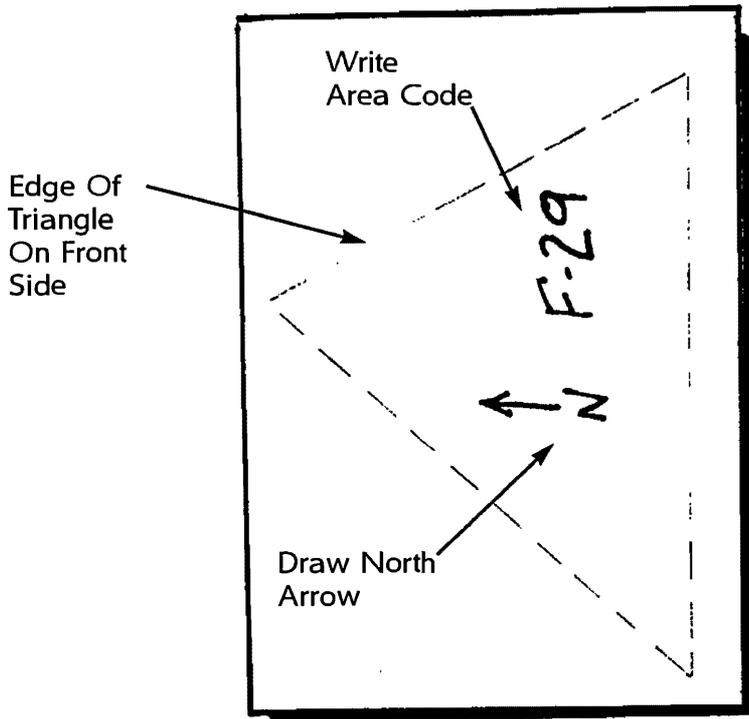
Lakes can be glued on afterwards.



Paper Template



PANEL TEMPLATE



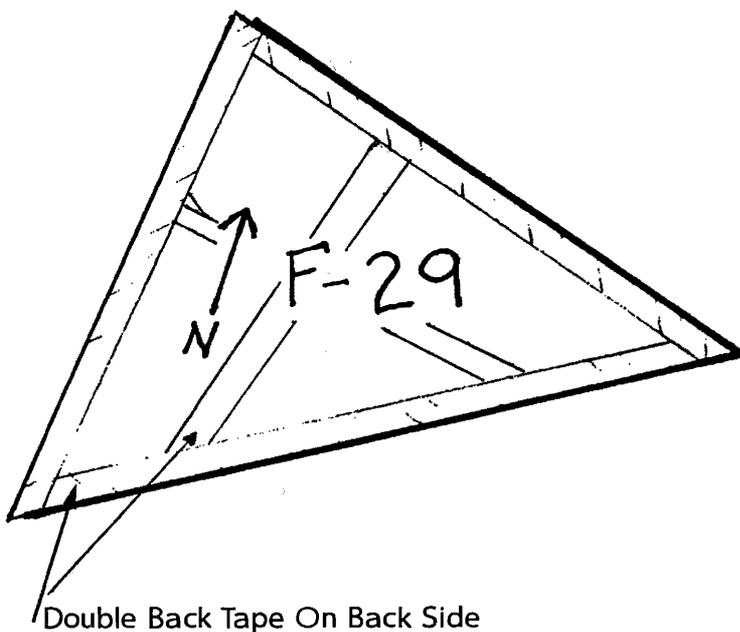
Back Side of Panel Template

When your template has all the small triangles covered, write the area code on the back.

Also, draw an arrow which points north.

Make sure to write this inside the lines of the triangle.

East/west lines are useful as guidelines. Students can use an east/west line to guide their North pointing arrow.



After the template is labeled on the back, carefully cut out the large triangle on the heavy lines.

Your teacher will laminate each template, cutting off excess laminating film.

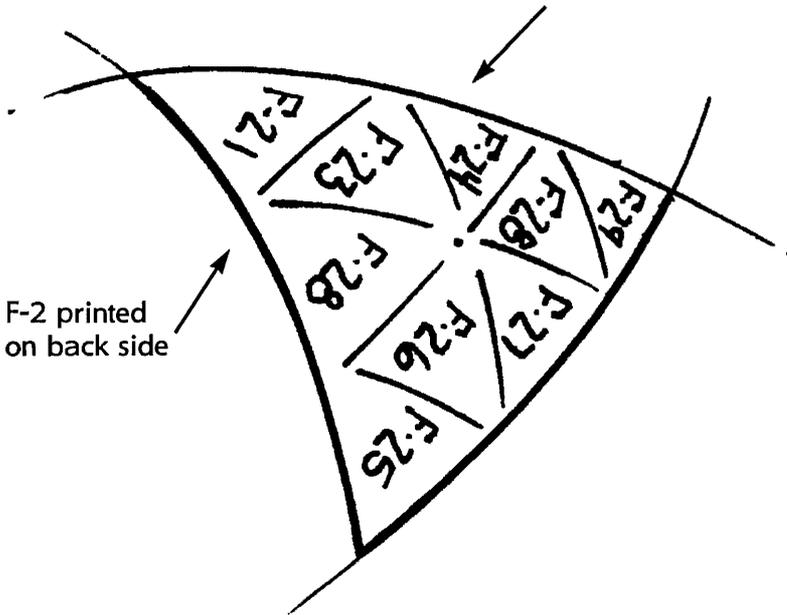
Apply a strip of double faced tape to all three edges on the backside. Also add two cross pieces of tape diagonally across each panel.

DO NOT REMOVE THE LINER TAPE.



MOUNTING FINISHED TEMPLATES

Panel Has Spherical Shape To Fit On Globe



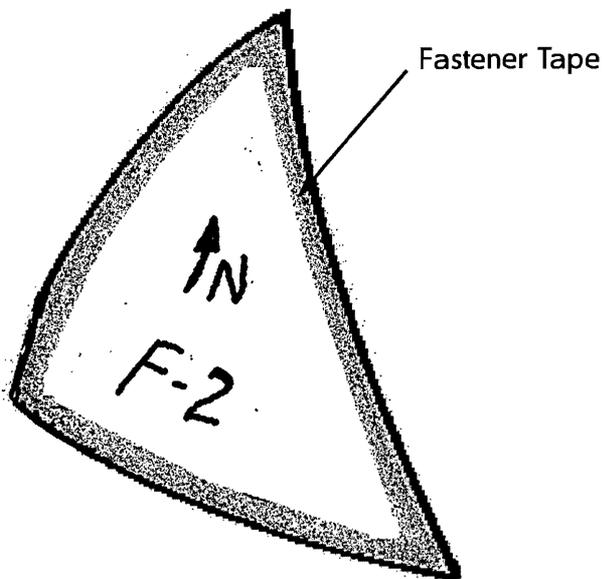
Mount the finished template on the molded black plastic panels.

Each black panel has its area code and a north pointing arrow printed on the back.

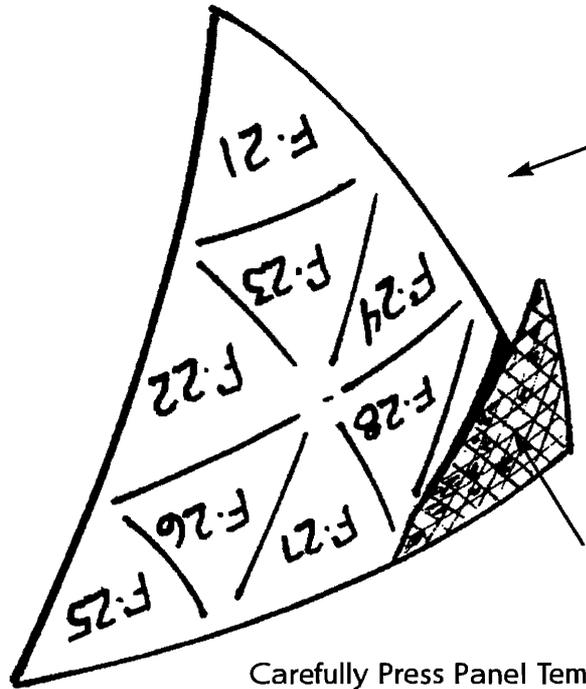
The area codes for the 9 panel templates and their outlines, are printed on the front of the black panel.

Make sure the numbers match and your north arrow exactly matches the direction on the back of the black panel.

Molded Black Plastic Panel.



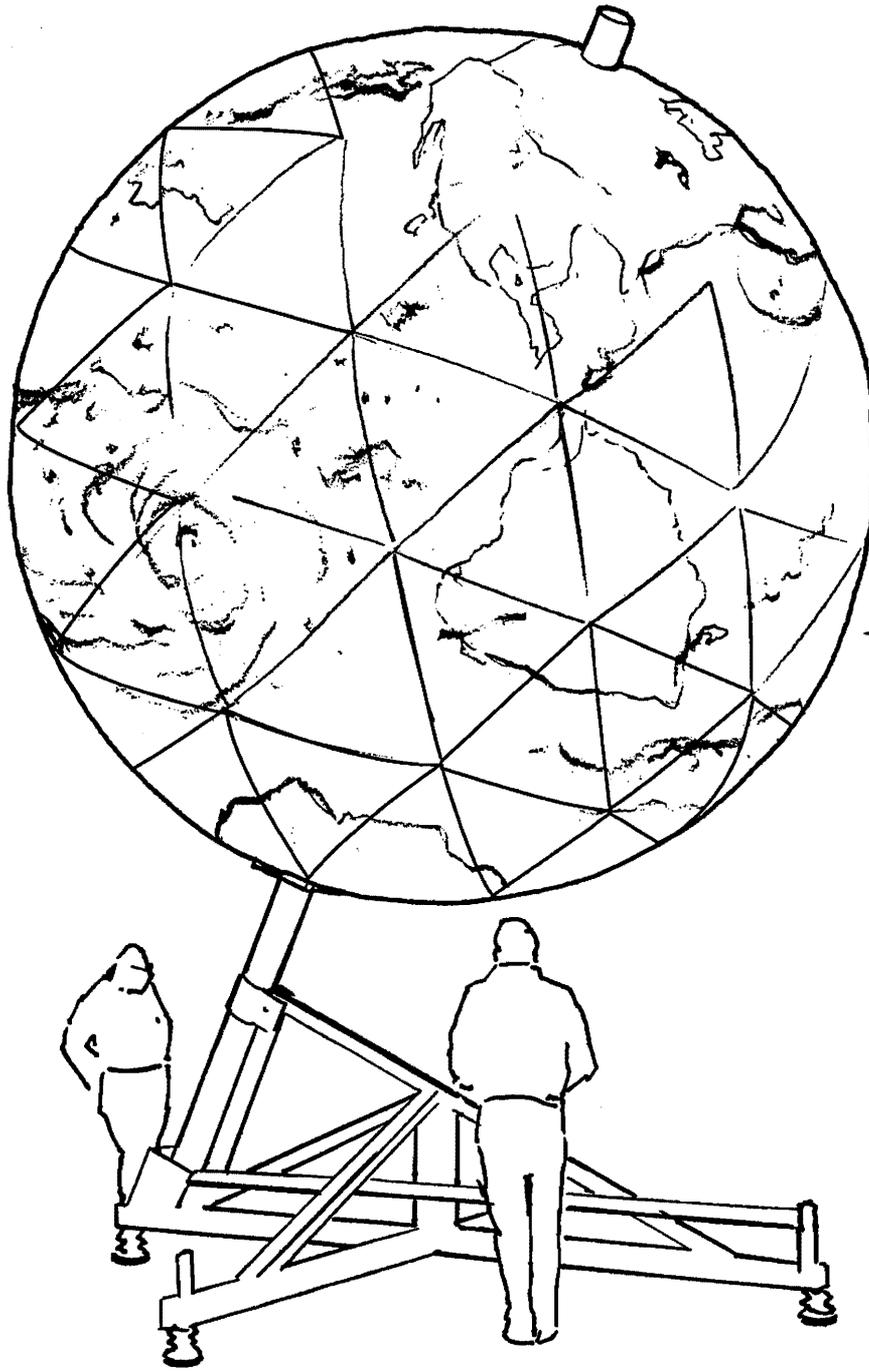
Back Side of Black Triangle



DO NOT FLATTEN BLACK PANEL!



GEODESIC ALUMINUM FRAMEWORK



*Curved Black Panels
Form Perfect 14'
Diameter Sphere*

On assembly day, all 180 black panels will be attached to an aluminum geodesic framework which you will also help build.

GOOD LUCK AND HAVE FUN !



CHECKLIST

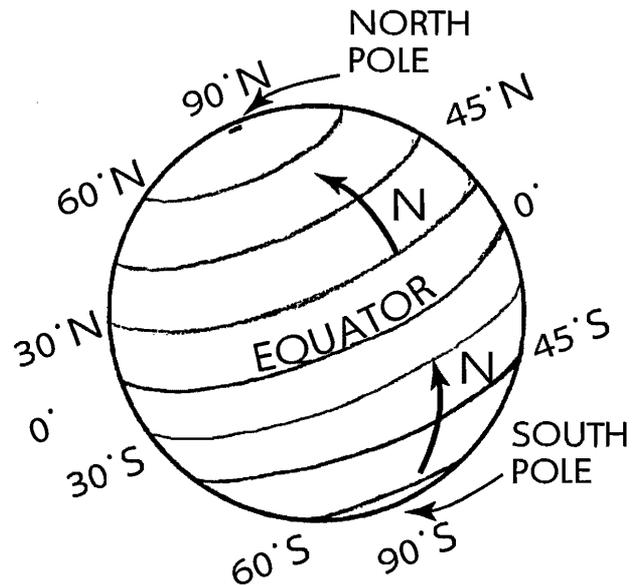
1. ___ Using area code numbers, locate your template on the World Grid Blueprint.
2. ___ Match the latitude and longitude lines and locate on the world map and atlas to find exact area location.
3. ___ Use the wall map, atlas and other references to determine colors to be used to represent area.
4. ___ Use colored pencils to color code in template for guide.
5. ___ Use templates to cut out triangles from magazines. Use Template P and Template H.
6. ___ Glue magazine triangles onto the paper template using glue sticks.
7. ___ Cover the entire paper template with triangles. Mark rivers, if any, and add lakes.
8. ___ Write the area code number and north pointing arrow on the back of the template.
9. ___ Cut out the large triangle along the dark boundary lines.
10. ___ Laminate each template.
11. ___ Apply double faced tape to the back of the three sides of the triangle, *and 2 pieces across diagonally.*
12. ___ Match the location and directions of triangles on the molded black panels. Tape triangles on the black panel.
13. ___ Sign names of students or teams of students on the back of the black panel.



TEACHER BACKGROUND INFORMATION

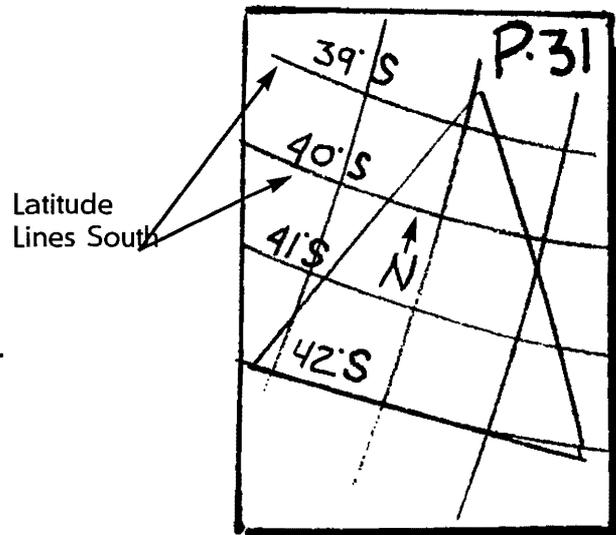
LATITUDE AND LONGITUDE;

latitude lines start at 0 deg. at the equator and increase to 90 deg. North at the North Pole and 90 deg. south at the South Pole



If your panel template has latitude lines south of the equator such as 40 deg. S, then North points to 39 deg. S, parallel to the longitude lines.

If your template has lines north of the equator, such as 5 deg. N, then north points to 6 deg. N.



Panel Template South of the Equator

DID YOU KNOW?

The model of the Earth that we are building contains 131,220 colored triangles.



Balancing Acts - Globe Building

Overview

Summary

In conjunction with the traveling exhibit "Balancing Acts", students at each venue are invited to create their own distinct globe as a centerpiece to the exhibit. The globe is created in two phases through an outreach project entitled "Building a New World":

- Phase 1. In a classroom activity, make a mosaic of the Earth from cutout magazine pieces.
- Phase 2. At the museum "Balancing Acts" exhibit, assemble the framework for a 14'diameter globe and attach their mosaic pieces.

Goals

This project was designed to meet three main goals:

1. Give students the opportunity to see the earth as one integrated life support system and to stimulate discussion of how human activity affects global environmental quality.
2. Encourage students to take ownership of improving their part of the world as a way to improve the whole world.
3. Give students an opportunity to solve problems in cooperative learning groups.

Participants

We recommend anywhere from 360 - 1200 5th and 6th grade students participating in the globe building project, depending on your media and educational goals as well as priorities for staff and space.

Timeline

Preparation for the project should begin about 5 months prior to the event. CMSI will provide consultation to each venue, assisting them in their globe building project from planning through the event day.

OVERVIEW OF EVENT DAY AT CMSI

35 classrooms participated and were divided into three groups:

Green

Yellow

Blue

Name tags were color coded by group and given to teachers at the training meeting. (Attachment # 13).

Volunteer name tags were a different color (Attachment #14).

Classes registered by color. 3 registration areas were set up (Blue, Yellow, and Green) and were located in close proximity to their assigned first activity.

TIME LINE

- 9:00 to 12:00 Classes rotated hourly and participated in the following activities:
 - Science workshops
 - IMAX Film
 - Globe Building/hands-on activities(Approximately 400 students were at each activity.)
- 12:00: Closing Program (Attachment #15).
- 12:30: LUNCH (Classes were on their own for lunch).
- 1:00: Classes leave museum.

(SEE ATTACHMENTS # 16, 17, 18, 19)

ATTACHMENT LIST:

1. SAMPLE LETTER TO SUPERINTENDENTS
2. SAMPLE LETTER TO CLUSTER LEADER/LOCAL SCHOOL DISTRICT CONTACT
3. SAMPLE TEACHER LETTER
4. VOLUNTEER LETTER
5. VOLUNTEER JOB DESCRIPTION VOLUNTEER ASSIGNMENTS
6. DONATION REQUEST
7. TEACHER TRAINING INVITATION LETTER
8. LAND/WATER PANEL PIECE LIST
9. MATERIALS CHECK-OUT FORM
10. TEACHER TRAINING AGENDA
11. PHOTO RELEASE FORM
12. BALANCING ACTS FACT SHEET
13. SAMPLE NAME TAGS
14. SAMPLE NAME TAGS FOR STAFF AND VOLUNTEERS
15. EVENT DAY PROGRAM SCHEDULE
16. EVENT DAY-AT-GLANCE
EVENT DAY OVERVIEW FOR STAFF
17. EVENT DAY SCHEDULES
18. EVENT DAY INFORMATION PACKET
19. SAMPLE THANK-YOU LETTER

November 10, 1994

Sid Thompson, Superintendent
Los Angeles Unified School District
450 N. Grand Ave.
Los Angeles, CA 90012

Dear Mr. Thompson,

The California Museum of Science and Industry is sponsoring an exciting event on the 25th Anniversary of Earth Day, April 21, 1995, which will involve 1200 students in a unique Global Awareness Project, "Building A New World." We would like to invite one fifth or sixth grade classroom from each of the twenty-seven cluster groups in LAUSD to participate in this event.

Balancing Acts: Providing For Today, Preserving Tomorrow, is a National Traveling Exhibit that will open at the Museum in April, 1995. The entrance to this exhibit will feature a giant three dimensional model of the Earth, built by fifth and sixth grade students. The major goals of this exhibit are to increase awareness of sustainable technologies and rethink the role we each play through our technology choices.

Imagine the excitement! Students from forty classrooms will participate in the "Building A New World" project, by producing sections of the Earth in their classrooms and assembling them on April 21, 1995, to form a globe of the Earth fourteen feet in diameter. Students will construct and raise this globe using bicycle power! While the globe is being constructed students will participate in workshops, hands-on science activities, view an IMAX film and tour museum exhibits.

The teachers selected must agree to attend a one day training workshop at the California Museum of Science and Industry in February, 1995, and the school to release the teacher for this training. The exact date has not been determined at this time. Specific instructions and materials will be provided for the completion of the sections of the globe, and teachers will be provided ongoing support and guidance by the Museum staff.

Classrooms will be selected by December, 1994, in order to facilitate the February training. Linda Wootan, from the Education Department of the California Museum of Science and Industry will be contacting you in the next few weeks regarding this project. We hope you will be as excited as we are about this interactive, educational opportunity for students in the greater Los Angeles area. We look forward to future articulation on this collaborative venture.

Sincerely,

Carol Valenta, Director
Education Department
California Museum of Science and Industry
(213) 744-7444

November 16, 1994

Carol Dodd, Cluster Leader
Venice/Westchester Cluster
Los Angeles Unified School District
11380 W. Graham Pl.
Los Angeles, CA 90064

Dear Ms. Dodd,

The California Museum of Science and Industry is sponsoring an exciting event on the 25th Anniversary of Earth Day, April 21, 1995, which will involve 1200 students in a unique Global Awareness Project, "Building A New World." We would like to invite one fifth or sixth grade classroom from the Venice/Westchester Cluster to participate in this event.

Balancing Acts: Providing For Today, Preserving Tomorrow, is a National Traveling Exhibit that will open at the Museum in April, 1995. The entrance to this exhibit will feature a giant three dimensional model of the Earth, built by fifth and sixth grade students. The major goals of this exhibit are to increase awareness of sustainable technologies and rethink the role we each play through our technology choices.

Imagine the excitement! Students will participate in the "Building A New World" project, by producing sections of the earth in their classrooms and assembling them on April 21, 1995, to form a globe fourteen feet in diameter. Students will construct and raise this globe using bicycle power! While the globe is being assembled, students will participate in science workshops, hands-on science activities, view an IMAX film and tour museum exhibits.

The teacher selected must agree to attend a one day training workshop at the California Museum of Science and Industry in February, 1995, and the school must be able to release the teacher for this training. The exact date has not been determined at this time. Specific instructions and materials will be provided for the completion of the sections of the globe, and teachers will be provided ongoing support and guidance by the Museum staff.

The selection of classes will be completed in December, 1994, in order to facilitate the February training. Linda Wootan, from the Education Department of the California Museum of Science and Industry, will be contacting you regarding this project. We hope you will be as excited as we are about this interactive, educational opportunity for students in the greater Los Angeles area. We look forward to future articulation on this collaborative venture.

Sincerely,

Carol Valenta, Director
Education Department
California Museum of Science and Industry
(213) 744-7444



February 3, 1995

Daniel Kerr
Franklin Elementary School
1610 Lake St.
Glendale, CA 91201

Dear Daniel Kerr,

We are very pleased that you will be participating in the Building A New World project on Earth Day, April 21, 1995 at the California Museum of Science and Industry. The response from schools has been outstanding and we are expecting approximately 1200 students at the Museum on this day to assemble a fourteen foot globe.

The training session for participating teachers has been scheduled for March 1, 1995. Complete directions, materials and teacher's guide will be provided at this time. Each teacher will be given four or five sections of the globe to complete in their classrooms between March 1 and April 7, 1995.

The training session has been scheduled as follows:

DATE: March 1, 1995
TIME: 9:00 a.m. -2:30 p.m.
LOCATION: California Museum of Science and Industry
700 State Dr.
L.A., CA 90037
TECHNOLOGY HALL
DIRECTIONS: See attached map
PARKING: Entrance to parking lot off of Figueroa. Give parking attendant your name.

Please bring a class list to the meeting. If you have any questions, please contact me at (213) 744-7444. I am looking forward to working with you on March 1, 1995.

Sincerely,

Linda Wootan, Curriculum Supervisor
Education Department

c: Principal

**VOLUNTEERS ARE NEEDED
TO HELP
BUILD A BETTER WORLD
Friday, April 21, 1995
8:00 AM - 12:30 PM**

Balancing Acts: Providing for Today, Preserving Tomorrow

The California Museum of Science and Industry is developing a national traveling exhibit called **Balancing Acts: Providing for Today, Preserving Tomorrow**. This exhibit opens to the public on April 22, 1995, the 25th anniversary of Earth Day.

Balancing Acts is a 6,000 square foot exhibit which will take visitors on a global tour to five countries to explore some of the world's most promising sustainable technologies - technological alternatives that seek to meet the essential needs of an expanding population in a more resource sustaining manner. The central focus of this exhibit is a large globe - fourteen feet in diameter - which will be constructed by 5th and 6th grade students from local schools. These students will be studying a specific area of the world and will come to the Museum on **Friday, April 21, 1995**, to help construct the globe.

Request for Volunteers

Volunteers are needed to serve as hosts to teachers and their students as they spend the day at the Museum building a new world. On the day of the event, students will also be viewing an IMAX film and participating in science workshop classes. As a classroom host, volunteers will work with the teacher in directing the students to each activity.

Volunteers not only will be able to help the students on the day of the event but also will have the opportunity to visit the classroom while the students are studying their area of the world.

Time Commitment

Volunteer hosts are required to be with the teacher and students during the entire day's activities form registration of classes at 8:30 AM to closing ceremonies at 12:30 PM. Pre-event day volunteer activities include: visiting the students in their classroom as they work on their project and attending an inservice training/orientation with your assigned teacher. These pre-event day activities are highly recommended but not mandatory. For more information, call the Volunteer Office at (213) 744-7504.

Yes, I would like to serve as a volunteer for the Build a New World project!

- I will serve as a volunteer host.
- I am interested in attending the inservice orientation; please notify me of the February date.
- I will visit the students in their classroom and will coordinate through the teacher.
- I am not able to serve as a volunteer host but I am interested in other event day activities.
- I am able to help with preactivities such as mailings, etc. Contact me regarding the dates.

Name: _____ Day Phone: _____

Address: _____

Please return to the Volunteer Office, CMF, 700 State Drive, Los Angeles, CA 90037.

California Museum of Science and Industry
Build a New World
April 21, 1995

VOLUNTEER RESPONSIBILITIES

Volunteer Position: Classroom Host

Mandatory Requirement:

- To serve as classroom host on event day from 8:30AM - 12:30PM.
- To attend one volunteer orientation on **April 6, 11AM - 12Noon** or **April 8, 9:30 AM - 10:30 AM.**

Additional Requirements:

- If the volunteer host is interested in visiting the classroom, an additional volunteer orientation will be conducted by Linda Wooton of the Education Department. Ms. Wootan will contact volunteers directly to set date.

Volunteer Responsibilities:

Classroom volunteers will be responsible for the following activities on event day:

- 1) Check in at Volunteer Registration by 8:00 AM. Registration will take place in Kinsey Auditorium. At this time, you will receive volunteer badge, hard hat, and packet of material including event schedule, name of school, etc. (You will have been given this information at the volunteer orientations as well.). Coffee and doughnuts will be available at Technology Hall.
- 2) By 8:30 AM, check in again at assigned Registration Table; notify volunteers/staff that you are here to greet school. You will meet the teacher and students here. Greet the teacher and review activities. A high school student from Crenshaw High will also assist you as a classroom host. Teachers will be asked to box and label all student lunches. Lunches will be stored in Technology Hall; ask high school host or classroom chaperon to take lunches to Technology Hall.
- 3) School registration will take place at one of three locations:
A) IMAX Theater, B) Science Workshop Trailers, or C) Science South/White Tent. Each classroom will be assigned to group A, B, or C. You will receive this information at the volunteer orientation.

4) The following activities will take place at each location:

IMAX Theater: Screening of Blue Planet; complimentary snack to be distributed after each screening.

Science Workshops/Education Trailers: Science Workshop classes

Science South/White Tent: Globe construction (staff and globe company will direct classes); Hands-On Science activities to keep students busy while they are not involved with globe construction. Closing ceremonies will also be conducted in Science South.

5) Volunteers will serve as a host helping the teacher and students throughout the day. Specific questions such as locations of each activities, restrooms, water fountain, etc. Staff persons at each registration table can answer any questions that you are unable to answer. Day of event activities and answers to anticipated questions will be reviewed at the volunteer orientation.

For More Information: Contact Terrell Avazian, (213) 744-7505 or
Linda Wootan, (213) 744-7444.

"Build a New World" Volunteer Assignments

Information/Registration Areas: 8:30 am - 12:30 pm

(2 Volunteers at each table, plus 1 Education Department staff person*)

KINSEY: Terrell Avazian
Calvin Fleming
*Chrys Terry

SCIENCE SOUTH: Arlene Molesky
Fernando Garcia
*Tere Rivera

IMAX THEATER: Lisa Rivera
Remi Groff
*Amelia Rodriguez

EDUCATION TRAILERS: Grace Avazian
Denise Washington
*Paul Lyles

Classroom hosts: 8:30 am - 12:30 pm

(Find class and meet the teacher at the registration table of the first assigned area)

*Crenshaw HS volunteers

<u>School</u>	<u>Teacher</u>	<u>Volunteer Hosts</u>
Alta Loma	Karen James	Lil Beim *Yvette Cox
Arminta	Tami Schwartz	Reba Roebuck *Heather Crawford
Belvedere MS	Sandra Kline	Karen Cook *Lloyd Emory
Carson Street	Doris Kelly	Jack Kettler *Leonie Felix
Carson Street	Joyce Stark	Sylvia Graham

<u>School</u>	<u>Teacher</u>	<u>Volunteer Hosts</u>
Carthay Center	Alma Bibbs	Victoria Foote <i>USC student</i>
Delevan School	Susan Redpath	Christine Hessler *Lynette Johnson
Dixie Canyon	Bruce Takashima	Jack Mitchell <i>USC student</i>
Drew MS	Kim Dallape	Bob Johnson *Sherri Lee
Franklin School	Daniel Kerr	Carmen Farmer <i>USC student</i>
Fries School	Toni Protti	John Travis *Allen Lonte
Gridley School	Paul Hanson	Fred Krausz <i>USC Student</i>
Patrick Henry	Jan Campbell	Clay Levine *Kristine Mancha
Hooper Ave. School	Era Steele	Marcos Matheus *Jumoke Olayele
Linwood Howe	Joy Lund	Art Coopersmith <i>USC student</i>
King Elementary	Sheila Wells	Vic Tomaszewski *Kendal Robinson
Limerick School	Marsha Kruger	Evelyn Buckspan
Lincoln MS	Kris Haenschke	Bill Hassel
Mar Vista School	Michele JeanMarie	Lydia Kuhn *Monica Rogers
Menlo Ave. School	Michael Rosner	D. Sussman

<u>School</u>	<u>Teacher</u>	<u>Volunteer Hosts</u>
Montara School	Natalie Orange	Bill Lawenda
Multnomah School	Andre Reynoso	Ann Meyers
122nd Street School	Penny Lacy	Rush Miller
Pacoima School	Sally Sharp	Yosh Nakada
Park Avenue School	Mary Griess	Doris Power
Park Western School	Helen Oshiba	Michele Scholefield
Plummer School	Chris Chettle	Wally Graham
74th Street School	Cathy Ferrin	Hank Shapiro
Sunrise School	Ron Rodriguez	Jan Wheeler
Tarzana School	Daryl Johnson	DeAnne Hayes
Tenth Street School	Marna Cornell	Shauna Der *Larry Buckner
Walnut Park School	Jackie Palmer	Courtney Perry *Aaron Young
G. Washington Elem.	Kristen Paul	Kristen Bergevin *Robert Glover
Woodcrest School	Jeraldine Stewart	Sis Giniger *Kevin Henderson
Woodlake Ave. School	Kelly Lauletta	Dorothy Kaplan *Erick Lemus

Hands-On Activity Tables in Cement Patio Area behind Science South

Activity Table Area Managers/Timers:

Jayne Brown
Calvin Fleming
Judy Boobar

Pin Wheel Activity Tables 1-5:

Table 1:

Kizzy Bell
Roxsann Joiner

Table 2:

Carlos Lopez
Robert Parker

Table 3:

Robert Smith

Table 4:

Michelle Thimbriel

Table 5:

Jamar Weaver

Solar Heater Activity Tables 6-10:

Table 6:

Bridget Flowers
Sharri Miller

Table 7:

Jackie Gilbert (H)

Table 8:

Bridget Jemison (H)

Table 9:

Taaji Madyun

Table 10:

Tonesia Moss (H)

Icosohedron (paper globe) Activity Tables 11-15:

Table 11:

Rhonda Cannon
Nicole Ewing

Table 12:

Kamaria Gray
Jameatrice Jame

Table 13:

Tamieka Johnson
Tiesha Lovett

Table 14:

Jamillah Odomes
Moniesha Preston
Jules Thompson

Table 15:

Dominic Ward
Niecy Washington
Brandi Woods

Education Staff Assignments

Registration Tables:

KINSEY: Calvin Fleming
Chrys Terry

SCIENCE SOUTH: Tere Rivera

IMAX THEATER: Lisa Rivera
Amelia Rodriguez

EDUCATION
TRAILERS: Denise Washington
Paul Lyles

Activity Tables: Jennifer Trochez
Calvin Fleming
Judy Boobar

Anything and everything (yet to be determined):

Carol Valenta

Linda Wootan

Diane Miller

Karen Reside

Jane Grossman

April 7, 1995

Alan B. Wayne
Public Affairs
United Airlines
P.O. Box 92245
Los Angeles International Airport
Los Angeles, CA 90009

Dear Mr. Wayne,

On Earth Day, Friday, April 21, 1995, the California Museum of Science and Industry will be sponsoring a very special event. Approximately 1200 fifth and sixth grade students from the greater Los Angeles area will come to the museum to construct a fourteen foot diameter globe which will become the entrance for our new exhibit, "Balancing Acts, Providing for Today, Preserving Tomorrow." This exhibit will take visitors on a global tour to five countries to explore some of the world's most advanced sustainable technologies in the fields of agriculture, energy and manufacturing.

The students participating in this even reflect the great diversity of the Los Angeles area. Many are bilingual students and some would be classified students "at risk." All of the students have been very excited about this project and are eager to attend the event in order to see the entire globe take shape.

During the students' visit, the museum will provide science workshops, hands-on science activities, exhibit exploration, an IMAX film screening, and globe constructing activities for each class. Chris Wagman, from our Special Events Department, spoke to you about United Airlines donating snacks for the students. We would like to provide a little snack for them to tide their hunger over until lunch. We respectfully request United Airlines to consider donating 1500 individually prepackaged snacks, such as pretzels, peanuts, or anything else that you may already provide for your airline passengers, for our student globe builders and volunteers.

We hope to have excellent coverage from the media on this event, both print and electronic. United Airlines has been a supporter of the museum in the past and we hope that you can assist us on this project. Your generous sponsorship would be acknowledged in signage at the event and we would like to extend an invitation to a representative from United Airlines to attend the event.

I am enclosing an invitation to you, and look forward to hearing from you soon regarding this proposal. I can be reached by (213) 744-7444.

Sincerely,

A handwritten signature in cursive script that reads "Linda Wootan".

Linda Wootan
Supervisor of Curriculum and Instructional Services
Education Department
California Museum of Science and Industry

February 3, 1995

We are very pleased that you will be participating in the Building A New World project on Earth Day, April 21, 1995 at the California Museum of Science and Industry. The response from schools has been outstanding and we are expecting approximately 1200 students at the Museum on this day to assemble a fourteen foot globe.

The training session for participating teachers has been scheduled for March 1, 1995. Complete directions, materials and teacher's guide will be provided at this time. Each teacher will be given four or five sections of the globe to complete in their classrooms between March 1 and April 7, 1995.

The training session has been scheduled as follows:

DATE: March 1, 1995
TIME: 9:00 a.m. -2:30 p.m.
LOCATION: California Museum of Science and Industry
700 State Dr.
L.A., CA 90037
TECHNOLOGY HALL
DIRECTIONS: See attached map
PARKING: Entrance to parking lot off of Figueroa. Give parking attendant your name.

Please bring a class list to the meeting. If you have any questions, please contact me at (213) 744-7444. I am looking forward to working with you on March 1, 1995.

Sincerely,

Linda Wootan, Curriculum Supervisor
Education Department

c: Principal

BUILDING A NEW WORLD
BLACK PANEL PIECES

LAND

*L5
L6
L7
D1
D2
D3
D4
D6
D7
D8
D9
E1
E2
E3
E4
*E5
E6
E9
A1
A2
A3
A4
A5
A6
A7
A8
A9
B1
B3
B4
B8
B9
C1
C2
C3
C4
*G1
*G3
G5
F1
F2
F3
F4
F5
F6
F7
F8
F9
O1
*O2
O3
O4
O8
O9
N1

*N2
N3
N4
N5
*N6
M1
M2
M3
M4
*M6
M7
M8
M9
S1
*S2
S3
*S5
S6
S7
T1
T3
T5
P1
*P2
P3
Q1
Q3
*Q4
Q5
Q6
Q7
Q9
R1
I2
I3
*I4
I5
I6
I7
H2
H3
H4
H6
H7
H8
H9

*Small amount of
land

WATER

L1
L2
L3
L4
L8
L9
D5
E7
E8
B2
B5
B6
B7
C5
C6
C7
C8
C9
G2
G4
G6
G7
G8
G9
O5
O6
O7
N7
N8
N9
M5
S4
S8
S9
T2
T4
T6
T7
T8
T9
P4
P5
P6
P7
P8
P9
Q2
Q8
R2
R3
R4
R5
R6
R7

R8
R9
I1
I8
I9
J1
J2
J3
J4
J5
J6
J7
J8
J9
K1
K2
K3
K4
K5
K6
K7
K8
K9
H1
H5

BUILDING A NEW WORLD
 CLASS ASSIGNMENTS(Black Pieces)

~~No.~~ of Class No.

Assigned Pieces

No. of Class	LAND				WATER		
1	L6	C3	T1	*S5	N7	J1	
2	L7	C4	T3	*P2	N8	J2	
3	D1	G5	T5	*Q4	N9	J3	
4	D2	F1	P1	*I4	M5	J4	
5	D3	F2	P3	*M6	S4	J5	
6	D4	F3	Q1		L1	S8	J6
7	D6	F4	Q3		L2	S9	J7
8	D7	F5	Q5		L3	T2	J8
9	D8	F6	Q6		L4	T4	J9
10	D9	F7	Q7		L8	T6	K1
11	E1	F8	Q9		L9	T7	K2
12	E2	F9	R1		D5	T8	K3
13	E3	O1	I2		E7	T9	K4
14	E4	O3	I3		E8	P4	K5
15	E6	O4	I5		B2	P5	K6
16	E9	O8	I6		B5	P6	K7
17	A1	O9	I7		B6	P7	K8
18	A2	N1	H2		B7	P8	K9
19	A3	N3	H3		C5	P9	H1
20	A4	N4	H4		C6	Q2	H5
21	A5	N5	H6		C7	Q8	
22	A6	M1	H7		C8	R2	
23	A7	M2	H8		C9	R3	
24	A8	M3	H9		G2	R4	
25	A9	M4	*L5		G4	R5	

BUILDING A NEW WORLD
CLASS ASSIGNMENTS (Black Pieces)

<u>No. of Class</u>	<u>Assigned Pieces</u>					
	<u>LAND</u>			<u>WATER</u>		
26	B1	M7	*E5	G6	R6	
27	B3	M8	*G1	G7	R7	
28	B4	M9	*G3	G8	R8	
29	B8	S1	*O2	G9	R9	
30	B9	S3	*N2	O5	I1	
31	C1	S5	*N6	O6	I8	
32	C2	S7	*S2	O7	I9	

If additional classes are attending, remove from the above assignments to form these below:

33	L6	D2	J7	K1	B2
34	L7	D3	J8	K2	B8
35	D1	E3	L1	J9	T8

BUILDING A NEW WORLD
MATERIALS CHECKOUT

Class

NO.

TEACHER

SCHOOL

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

11.

12.

13.

14.

15.

16.

17.

18.

19.

20.

Class

BUILDING A NEW WORLD
MATERIALS CHECK OUT

NO.	TEACHER	SCHOOL
211.	_____	_____
22.	_____	_____
23.	_____	_____
24.	_____	_____
25.	_____	_____
26.	_____	_____
27.	_____	_____
28.	_____	_____
29.	_____	_____
30.	_____	_____
31.	_____	_____
32.	_____	_____
33.	_____	_____
34.	_____	_____
35.	_____	_____

BUILDING A NEW WORLD
TEACHER TRAINING
March 1, 1995

A G E N D A

Welcome/Introductions..... Carol Valenta,
Director, Education Dept.

Balancing Acts: Providing For..... Diane Perlov, Curator
Today, Preserving Tomorrow

Video: Building a New World..... Linda Wootan, Ed Dept.

B R E A K

- Building a New World Classroom Project
- Building a New World Teacher's Guide
- Instructions for Completing Globe Pieces

L U N C H

Overview of April 21, 1995

- Overhead Map
- Three Venue Schedules
- Photo Releases
- Lunches
- Volunteers
- Name Tags
- Globe Building Teams

Check out of materials: map, atlas, teacher bag, white
triangles, black panels, posters

March 2, 1995

To: The Parents and Guardians of Students Participating in
"Building a New World" Special Event at the California
Museum of Science and Industry

From: Linda Wootan, Curriculum Supervisor
Education Department
California Museum of Science and Industry
(213) 744-7444

Re: Event Details and Photo Release

The California Museum of Science and Industry has invited your child's class to participate in a special Earth Day event, "Building a New World" that highlights the opening of a new environmentally-themed exhibit, "Balancing Acts." The event will be held at the Museum on Friday, April 21, 1995 from 8:30 a.m. to 1:30 p.m. (Send a sack lunch with your child).

The event day is divided into three parts and includes seeing an educational film in our IMAX movie theater, participating in hands-on Earth Day activities and building a 14 foot globe in the exhibit area.

We will be photographing all of the activities during the event and the media will also be invited. Participation in the event implies permission to use photographs and other likenesses of students for publicity purposes.

(Print) Child's name/age _____

School/grade level _____

Home address _____

Parent/Guardian signature _____

Please be sure your child returns this letter with all of the information requested and a parent signature to his/her teacher as soon as possible.

The Museum has wonderful science education programs and a Museum membership for families. If you would like more information on membership in the Museum and our educational programs, please place a check here. _____

If you have any questions, please contact your child's teacher. We look forward to your child's attendance at "Building a New World."

Thank you very much.

2 Marzo 1995

Para: Los padres y guardianes de los estudiantes
participando en "Construyendo Un Nuevo Mundo",
El Museo de Ciencias y Industria de California.

De parte de: Linda Wootan, Supervisora de Currículo
Departamento de Educación
El Museo de Ciencias y Industria de California

El Museo de Ciencias y Industria de California ha invitado a la clase de su hijo(a) a participar en un evento muy especial para el Día de La Tierra. El tema, "Construyendo Un Nuevo Mundo" conmemorará la apertura de una nueva exhibición sobre la tierra llamada "Balances Terrestre" ("Balancing Acts"). El evento se llevará acabo Viernes 21 de Abril 1995 de las 8:30 a.m. hasta la 1:30 p.m. [Por favor manden almuerzo con su hijo(a).]

Su hijo(a) tendrá oportunidad de visitar el Museo y el teatro IMAX. También tendrá oportunidad de ayudar a construir un globo para la exhibición "Balances Terrestre".

Vamos a fotografiar el evento y la prensa y la television estarán presente. El permiso del padre para atender este evento implica permiso de fotografiar a su hijo(a) y de usar las fotografías para publicidad del Museo.

(En letra de molde)Nombre de su hijo(a)/Su edad _____

Escuela/Grado _____

Dirección (casa) _____

Firma de padre/guardián _____

Por favor regrese este permiso a la escuela de su hijo(a) los más pronto posible.

El Museo tiene varios programas educativos y membresia desponible. Si usted desea mas información, por favor marque aquí _____.

Si usted tiene cualquier pregunta sobre este evento, por favor hable con la maestra(o) de su hijo(a).

Muchas gracias.

LW:jt

**BALANCING ACTS:
PROVIDING FOR TODAY, PRESERVING TOMORROW**
A National Traveling Exhibit Developed by the
California Museum of Science and Industry

Introduction

Balancing Acts is a 6,000 square foot exhibit which will take visitors on a global tour to five countries to explore some of the world's most promising sustainable technologies in the fields of agriculture, energy, and manufacturing. Through a hands-on multi-media approach, visitors gain a better understanding of the science underlying important earth-friendly technologies and how they work within a cultural and ecological context.

The exhibit opens in Los Angeles on April 22, 1995, the 25th anniversary of Earth Day. After an eight month showing it will begin a five year national exhibit tour.

Exhibit Overview

A Celebration of the Human Spirit

Balancing Acts highlights real life success stories around the globe to inspire hope in the future.

It celebrates the importance of children in our task of creating a more sustainable world, and acknowledges the accomplishments that even our youngest citizens can achieve when they work together.

It celebrates the important work being done in small towns and large cities across the nation and around the world.

A Hands-on Learning Experience

Visitors engage in a variety of multi-media experiences:

- Immersion experiences that evoke the feel of familiar and foreign lands
- Hands-on exhibits that encourage "doing" science
- Computer simulations and games
- Larger than life models and cultural artifacts
- Living specimens

A Call to Action

Visitors make real objects and solve real problems using earth-friendly technologies.

They participate in panel discussions, express their views, and hear debates on timely issues.

Exhibit Theme Areas

1. State of the World

Featured is a 14 foot in diameter globe, created in mosaic form and assembled entirely by school children. Once completed, visitors can spin the globe using a hand-crank. An adjacent video documents the student globe building project, while another presents an audio-visual montage of the State of the World.

2. Garden of Eatin'

Visitors travel from Asia to the American Mid-West to explore two of the world's most renown cases in sustainable agriculture - 1000 year old rice production in Bali and farming without pesticides in Iowa. Visitors learn of sustainable agriculture implemented elsewhere in the world through illustrative graphics.

3. Harnessing Nature's Energy

Presented are two different energy plans based on renewables - wind energy in Denmark and solar energy in a remote Guatemalan community. Visitors learn of renewable energy strategies implemented elsewhere in the world through illustrative graphics.

4. Industrial Pollution Solutions

Walking through an car facility in Germany, visitors learn how an ecosystems approach to industry can lead to more earth-sensitive automobile production. Visitors see industrial pollution solutions implemented elsewhere in the world through illustrative graphics.

6. Global Town Hall

Look beyond technology at some other factors such as policy and values that impact the State of our World.

Exhibit Outreach

Classroom Materials

A Teacher's Guide and Teacher Training help facilitate classroom learning related to the environment and sustainability.

National Geographic WORLD Magazine Special Edition

A special exhibit edition of this youth oriented magazine serves as an innovative guide for both parents and teachers. The edition features photographs, illustrated articles, games, cartoons, and student activities on the subject of sustainability.

Seminars and Panel Discussions

Scientists and other special guests will be featured in the exhibit's Global Town Hall.

Global Town Hall Workshops

Workshops let visitors take home the principles they've learned in the exhibit.

California Museum of Science and Industry

Building a New World

April 21, 1995



Name:

School:

Balancing Acts

California Museum of Science and Industry

Building a New World

April 21, 1995



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April 21, 1995



April 21, 1995

California Museum of Science and Industry

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April 21, 1995



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April 21, 1995



April 21, 1995

California Museum of Science and Industry

California Museum of Science and Industry



April 21, 1995



April 21, 1995

BUILD A NEW WORLD
GLOBE BUILDING EVENT
APRIL 21, 1995

PROGRAM

- 12 Noon Welcome, Introduction and Exhibit Overview
(Jeffrey N. Rudolph, Executive Director, CMSI)
- 12:04 Introduction of Jennie Kwan, star of NBC's
"California Dreams"
(Jeff intros Jennie)
- Event Welcome and Let's Keep the Earth Healthy Rally,
includes class roll call
(Jennie Kwan)
- 12:08 Introduction of Kinderchorus
(Jennie Kwan)
- Kinderchorus sings 2 songs
- 12:15 Self-Introduction by Dr. Ann Muscat, Senior Vice
President of Exhibits and Education
(Dr. Muscat speaks about how science can help
our environment)
- 12:15 "Learning about how our world works through science"
(Dr. Muscat)
- 12:20 Intro of Jennie's song
(Jeff re-intros Jennie)
- 12:20 (Jennie sings)
- 12:25 Recognition of Sponsors
(Jeff and Ann call up sponsor representatives,
present t-shirts)
- 12:30 Farewell and re-introduction of Kinderchorus
(Jennie)
- 12:30 Kinderchorus sings 2 songs
PROGRAM ENDS.....

California Museum of Science and Industry
BALANCING ACTS
 Providing for Today, Preserving Tomorrow
 April 21, 1995



PROVIDING FOR TODAY PRESERVING TOMORROW

Balancing Acts

9:00-10:00	EDUCATION TRAILERS	SCIENCE SOUTH		BIJOU THEATER	IMAX Theater
	<p>GREEN GROUP</p> <p>HOOPER 1</p> <p>PLUMMER 2</p> <p>74th ST. 3</p> <p>SUNRISE 4</p> <p>TARZANA 5</p> <p>TENTH ST. 6</p> <p>WALNUT PK. 7</p> <p>G. WASHINGTON 8</p> <p>WOODCREST 9</p> <p>WOODLAKE 10</p>	<p>9:00-9:30 GLOBE BUILDING</p> <p>DREW MS LINWOOD HOWE KING LINCOLN MS MENLO</p> <p>9:30-10:00 GLOBE BUILDING</p> <p>PATRICK HENRY MS MAR VISTA MONTARA MULTNOMAH 122nd ST PACOIMA</p>	<p>9:00-9:30 HANDS-ON ACTIVITIES</p> <p>PATRICK HENRY MS MAR VISTA MONTARA MULTNOMAH 122nd ST PACOIMA</p> <p>9:30-10:00 HANDS-ON ACTIVITIES</p> <p>DREW MS LINWOOD HOWE KING LINCOLN MS MENLO</p>	<p>CARSON ST CARSON ST:</p>	<p>YELLOW GROUP</p> <p>ALTA LOMA. ARMINTA</p> <p>BELVEDERE MS</p> <p>CARTHAY CENTER</p> <p>DELEVAN</p> <p>DIXIE CANYON FRANKLIN FRIES</p> <p>GRIDLEY</p> <p>LIMERICK</p> <p>PARK AVE.</p> <p>PARK WESTERN</p>
10:00-11:00	<p>BLUE GROUP</p> <p>DREW MS 1</p> <p>P. HENRY MS 2</p> <p>L. HOWE 3</p> <p>KING 4</p> <p>LINCOLN MS 5</p> <p>MENLO 6</p> <p>MONTARA 7</p> <p>MULTNOMAH 8</p> <p>122nd ST. 9</p> <p>PACOIMA 10</p>	<p>10:00-10:30 GLOBE BUILDING</p> <p>ALTA LOMA ARMINTA BELVEDERE MS GRIDLEY DELEVAN DIXIE CANYON</p> <p>10:30-11:00 GLOBE BUILDING</p> <p>FRANKLIN FRIES GRIDLEY LIMERICK PARK AVENUE PARK WESTERN</p>	<p>10:00-10:30 HANDS-ON ACTIVITIES</p> <p>FRANKLIN FRIES GRIDLEY LIMERICK PARK AVENUE PARK WESTERN</p> <p>10:30-11:00 HANDS-ON ACTIVITIES</p> <p>ALTA LOMA ARMINTA BELVEDERE MS GRIDLEY DELEVAN DIXIE CANYON</p>	<p>MAR VISTA</p>	<p>GREEN GROUP</p> <p>CARSON ST HOOPER</p> <p>PLUMMER</p> <p>74th ST.</p> <p>SUNRISE</p> <p>TARZANA</p> <p>TENTH ST.</p> <p>WALNUT PK.</p> <p>G. WASHINGTON</p> <p>WOODCREST</p> <p>WOODLAKE</p>



PROVIDING FOR TODAY, PRESERVING TOMORROW

Balancing Acts

California Museum of Science and Industry
BALANCING ACTS
 Providing for Today, Preserving Tomorrow
 April 21, 1995

11:00-12:00	EDUCATION TRAILERS	Science South		BIJOU THEATER	IMAX Theater																															
	<table border="1"> <thead> <tr> <th data-bbox="220 706 466 743">YELLOW GROUP</th> </tr> </thead> <tbody> <tr><td data-bbox="220 755 466 792">ARMINTA 1</td></tr> <tr><td data-bbox="220 803 466 841">BELVEDERE MS 2</td></tr> <tr><td data-bbox="220 852 466 889">CARTHAY CENTER 3</td></tr> <tr><td data-bbox="220 901 466 938">DELEVAN 4</td></tr> <tr><td data-bbox="220 950 466 987">DIXIE CANYON 5</td></tr> <tr><td data-bbox="220 998 466 1036">FRIES 6</td></tr> <tr><td data-bbox="220 1047 466 1084">GRIDLEY 7</td></tr> <tr><td data-bbox="220 1096 466 1133">LIMERICK 8</td></tr> <tr><td data-bbox="220 1144 466 1182">PARK AVE. 9</td></tr> <tr><td data-bbox="220 1193 466 1230">PARK WESTERN 10</td></tr> </tbody> </table>	YELLOW GROUP	ARMINTA 1	BELVEDERE MS 2	CARTHAY CENTER 3	DELEVAN 4	DIXIE CANYON 5	FRIES 6	GRIDLEY 7	LIMERICK 8	PARK AVE. 9	PARK WESTERN 10	<table> <tbody> <tr> <td data-bbox="535 722 903 755">11:00-11:30</td> <td data-bbox="535 755 903 933"> GLOBE BUILDING TARZANA TENTH ST WALNUT PARK GEORGE WASHINGTON WOODCREST WOODLAKE </td> </tr> <tr> <td data-bbox="535 998 903 1031">11:30-12:00</td> <td data-bbox="535 1031 903 1209"> GLOBE BUILDING CARSON ST. CARSON ST. HOOPER PLUMMER SEVENTY-FOURTH SUNRISE </td> </tr> </tbody> </table>	11:00-11:30	GLOBE BUILDING TARZANA TENTH ST WALNUT PARK GEORGE WASHINGTON WOODCREST WOODLAKE	11:30-12:00	GLOBE BUILDING CARSON ST. CARSON ST. HOOPER PLUMMER SEVENTY-FOURTH SUNRISE	<table> <tbody> <tr> <td data-bbox="955 722 1291 755">11:00-11:30</td> <td data-bbox="955 755 1291 933"> HANDS-ON ACTIVITIES CARSON ST. CARSON ST. HOOPER PLUMMER SEVENTY-FOURTH ST. SUNRISE </td> </tr> <tr> <td data-bbox="955 998 1291 1031">11:30-12:00</td> <td data-bbox="955 1031 1291 1209"> HANDS-ON ACTIVITIES TARZANA TENTH ST. WALNUT PARK GEORGE WASHINGTON WOODCREST WOODLAKE </td> </tr> </tbody> </table>	11:00-11:30	HANDS-ON ACTIVITIES CARSON ST. CARSON ST. HOOPER PLUMMER SEVENTY-FOURTH ST. SUNRISE	11:30-12:00	HANDS-ON ACTIVITIES TARZANA TENTH ST. WALNUT PARK GEORGE WASHINGTON WOODCREST WOODLAKE	<p data-bbox="1365 698 1491 747">ALTA LOMA. FRANKLIN:</p>	<table border="1"> <thead> <tr> <th data-bbox="1564 706 1831 743">BLUE GROUP</th> </tr> </thead> <tbody> <tr><td data-bbox="1564 755 1831 792">DREW MS</td></tr> <tr><td data-bbox="1564 803 1831 841">P. HENRY MS</td></tr> <tr><td data-bbox="1564 852 1831 889">L. HOWE</td></tr> <tr><td data-bbox="1564 901 1831 938">KING</td></tr> <tr><td data-bbox="1564 950 1831 987">LINCOLN MS</td></tr> <tr><td data-bbox="1564 998 1831 1036">MAR VISTA</td></tr> <tr><td data-bbox="1564 1047 1831 1084">MENLO</td></tr> <tr><td data-bbox="1564 1096 1831 1133">MONTARA</td></tr> <tr><td data-bbox="1564 1144 1831 1182">MULTNOMAH</td></tr> <tr><td data-bbox="1564 1193 1831 1230">122nd ST.</td></tr> <tr><td data-bbox="1564 1242 1831 1279">PACOIMA</td></tr> </tbody> </table>	BLUE GROUP	DREW MS	P. HENRY MS	L. HOWE	KING	LINCOLN MS	MAR VISTA	MENLO	MONTARA	MULTNOMAH	122nd ST.	PACOIMA
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BUILDING A NEW WORLD SPECIAL EVENT
California Museum of Science and Industry
April 21, 1995

Approximately 1200 students will participate at the "Building A New World" special event on April 21, 1995. They will be divided into three groups of 400 students and will be scheduled to rotate hourly through three different planned venues/activities at the Museum. These activities are listed below:

- A: IMAX Theater
Screening of The Blue Planet
- B: Science Workshops
10 Hands-on Science Workshops in the Educational Trailers
- C: Globe Construction Activity
Approximately 120 students at a time will be involved in the actual building of the globe. The other students in this group will visit the following exhibits: Balancing Acts, Our Urban Environment, and Chemistry. There will be science activities and Pocket Science in the area directly outside.

The time schedule is as follows:

- 8:30-9:00 Registration
- 9-12:00 Three-way rotation of activities
A guide will be assigned to each class and will lead each class to each of the areas described above.
- 12:30 Closing Ceremony : Cemented Area outside Science South
- 1:00 Lunch
- 1:30 Leave Museum

California Museum of Science and Industry

BALANCING ACTS

Providing for Today, Preserving Tomorrow

April 21, 1995

GREEN GROUP SCHEDULE

CARSON ST.
CARSON ST.
HOOPER
PLUMMER
SEVENTY-FOURTH ST.
SUNRISE

TARZANA
TENTH ST.
WALNUT PARK
GEORGE WASHINGTON
WOODCREST
WOODLAKE

8:45 Registration
 Front of Education Trailers

9:00 Science Workshops
 Education Trailers

10:00 IMAX Theater: Blue Planet

10:50 Snack
 In Back of IMAX Theater

11:00 Science South
 Globe Building/Hands-on Activities

12:00 Closing Program
 Science South Cement Patio

California Museum of Science and Industry
BALANCING ACTS
Providing for Today, Preserving Tomorrow
April 21, 1995

11:00-12:00 SCIENCE SOUTH

11:00-11:30 GLOBE BUILDING

TARZANA
TENTH ST
WALNUT PARK
GEORGE WASHINGTON
WOODCREST
WOODLAKE

11:00-11:30 HANDS-ON ACTIVITIES

CARSON ST.
CARSON ST.
HOOPER
PLUMMER
SEVENTY-FOURTH ST.
SUNRISE

11:30-12:00 GLOBE BUILDING

CARSON ST.
CARSON ST.
HOOPER
PLUMMER
SEVENTY-FOURTH
SUNRISE

11:30-12:00 HANDS-ON ACTIVITIES

TARZANA
TENTH ST.
WALNUT PARK
GEORGE WASHINGTON
WOODCREST
WOODLAKE

California Museum of Science and Industry
BALANCING ACTS
Providing for Today, Preserving Tomorrow
April 21, 1995

SCIENCE WORKSHOPS-EDUCATION TRAILERS

9:00 GREEN GROUP	10:00 BLUE GROUP	11:00 YELLOW GROUP
HOOPER 1	DREW MS- 1	ARMINTA 1
PLUMMER 2	P. HENRY MS 2	BELVEDERE MS 2
74th ST. 3	L. HOWE 3	CARTHAY CENTER 3
SUNRISE 4	KING 4	DELEVAN 4
TARZANA 5	LINCOLN MS 5	DIXIE CANYON 5
TENTH ST. 6	MENLO 6	FRIES 6
WALNUT PK. 7	MONTARA 7	GRIDLEY 7
G. WASHINGTON 8	MULTNOMAH 8	LIMERICK 8
WOODCREST 9	122nd ST. 9	PARK AVE. 9
WOODLAKE 10	PACOIMA 10	PARK WESTERN 10

California Museum of Science and Industry
BALANCING ACTS
Providing for Today, Preserving Tomorrow
April 21, 1995

SCIENCE COMES ALIVE: BIJOU THEATER
"The Electrical Chemical Brain"

9:00 GREEN GROUP

CARSON ST: Doris Kelly
CARSON ST: Joyce Stark

10:00 BLUE GROUP

MAR VISTA : Michele JeanMarie

11:00 YELLOW GROUP

ALTA LOMA: Karen James
FRANKLIN: Daniel Kerr



PROVIDING FOR TODAY, PRESERVING TOMORROW

Balancing Acts

Friday, April 21, 1995

9:00 am - 12:30 pm

a special event at the

California Museum of Science and Industry

California Museum of Science and Industry



PROVIDING FOR TODAY, PRESERVING TOMORROW
Balancing Acts

BALANCING ACTS

April 21, 1995

9:00	Education Trailers IMAX Theater Science South Bijou Theater	Green Group Yellow Group Blue Group Carson St. School
10:00	Education Trailers IMAX Theater Science South Bijou Theater	Blue Green Yellow Mar Vista School
11:00	Education Trailers IMAX Theater Science South Bijou Theater	Yellow Blue Green Alta Loma, Franklin Schools
12:00	Closing Program Science South	

California Museum of Science and Industry
BALANCING ACTS
 Providing for Today, Preserving Tomorrow
 April 21, 1995



Balancing Acts

BEST AVAILABLE COPY

BEST AVAILABLE COPY

DAY AT GLANCE

9:00-10:00	EDUCATION TRAILERS	SCIENCE SOUTH (Blue)		BIJOY THEATER	MAX Theater
	<p>GREEN GROUP</p> <p>HOOPER 1</p> <p>PLUMMER 2</p> <p>74th ST. 3</p> <p>SUNRISE 4</p> <p>TARZANA 5</p> <p>TENTH ST. 6</p> <p>WALNUT PK. 7</p> <p>G. WASHINGTON 8</p> <p>WOODCREST 9</p> <p>WOODLAKE 10</p>	<p>9:00-9:30 GLOBE BUILDING</p> <p>DREW MS LINWOOD HOWE KING LINCOLN MS MENLO</p>	<p>9:00-9:30 HANDS-ON ACTIVITIES</p> <p>PATRICK HENRY MS MAR VISTA MONTARA MULTNOMAH 122nd ST PACOMA</p>	<p>CARSON ST CARSON ST:</p>	<p>YELLOW GROUP</p> <p>ALTA LOMA, ARMINTA</p> <p>BELVEDERE MS</p> <p>CARTHAY CENTER</p> <p>DELEVAN</p> <p>DIXIE CANYON FRANKLIN FRIES</p> <p>GRIDLEY</p> <p>LIMERICK</p> <p>PARK AVE.</p> <p>PARK WESTERN</p>
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<p>10:00-10:30 GLOBE BUILDING</p> <p>ALTA LOMA ARMINTA BELVEDERE MS GRIDLEY DELEVAN DIXIE CANYON</p>	<p>10:00-10:30 HANDS-ON ACTIVITIES</p> <p>FRANKLIN FRIES <i>Carthay Center</i> LIMERICK PARK AVENUE PARK WESTERN</p>	<p>10:30-11:00 GLOBE BUILDING</p> <p>FRANKLIN FRIES <i>Carthay Center</i> LIMERICK PARK AVENUE PARK WESTERN</p>	<p>10:30-11:00 HANDS-ON ACTIVITIES</p> <p>ALTA LOMA ARMINTA BELVEDERE MS GRIDLEY DELEVAN DIXIE CANYON</p>		



PROVIDING FOR TODAY PRESERVING FOR TOMORROW

Balancing Acts

California Museum of Science and Industry
BALANCING ACTS
 Providing for Today, Preserving Tomorrow
 April 21, 1995

1:00-12:00	EDUCATION TRAILERS	Science South		BIJOU THEATER	IMAX Theater
	<p>YELLOW GROUP</p> <p>ARMINTA 1</p> <p>BELVEDERE MS 2</p> <p>CARTHAY CENTER 3</p> <p>DELEVAN 4</p> <p>DIXIE CANYON 5</p> <p>FRIES 6</p> <p>GRIDLEY 7</p> <p>LIMERICK 8</p> <p>PARK AVE. 9</p> <p>PARK WESTERN 10</p>	<p>11:00-11:30 GLOBE BUILDING</p> <p>TARZANA TENTH ST WALNUT PARK GEORGE WASHINGTON WOODCREST WOODLAKE</p>	<p>11:00-11:30 HANDS-ON ACTIVITIES</p> <p>CARSON ST. CARSON ST. HOOPER PLUMMER SEVENTY-FOURTH ST. SUNRISE</p>	<p>ALTA LOMA, FRANKLIN</p>	<p>BLUE GROUP</p> <p>DREW MS</p> <p>P. HENRY MS</p> <p>L. HOWE</p> <p>KING</p> <p>LINCOLN MS MAR VISTA MENLO</p> <p>MONTARA</p> <p>MULTNOMAH</p> <p>122nd ST.</p> <p>PACOMA</p>
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California Museum of Science and Industry

BALANCING ACTS

Providing for Today, Preserving Tomorrow

April 21, 1995

BLUE GROUP SCHEDULE

DREW MS
PATRICK HENRY MS
LINWOOD HOWE
KING
LINCOLN MS
MAR VISTA

MENLO
MONTARA
MULTNOMAH
122ND STREET
PACOIMA

8:45 Registration
 Front of Science South

9:00 Science South
 Globe Building/Hands-on Activities

10:00 Science Workshops
 Education Trailers

10:50 Snack
 Front of IMAX Theater

11:00 IMAX Theater: Blue Planet

12:00 Closing Program
 Science South Cement Patio

California Museum of Science and Industry
BALANCING ACTS
Providing for Today, Preserving Tomorrow
April 21, 1995

BLUE GROUP
9:00-10:00 SCIENCE SOUTH

9:00-9:30 GLOBE BUILDING

DREW MS
LINWOOD HOWE
KING
LINCOLN MS
MENLO

9:00-9:30 HANDS-ON ACTIVITIES

PATRICK HENRY MS
MAR VISTA
MONTARA
MULTNOMAH
122nd ST
PACOIMA

GLOBE BUILDING
9:30-10:00 ~~HANDS-ON ACTIVITIES~~

PATRICK HENRY MS
MAR VISTA
MONTARA
MULTNOMAH
122nd ST
PACOIMA

HANDS-ON ACTIVITIES
9:30-10:00 ~~GLOBE BUILDING~~

DREW MS
LINWOOD HOWE
KING
LINCOLN MS
MENLO

California Museum of Science and Industry
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April 21, 1995

SCIENCE WORKSHOPS-EDUCATION TRAILERS

9:00 GREEN GROUP	10:00 BLUE GROUP	11:00 YELLOW GROUP
HOOPER 1	DREW MS. 1	ARMINTA 1
PLUMMER 2	P. HENRY MS 2	BELVEDERE MS 2
74th ST. 3	L. HOWE 3	CARTHAY CENTER 3
SUNRISE 4	KING 4	DELEVAN 4
TARZANA 5	LINCOLN MS 5	DIXIE CANYON 5
TENTH ST. 6	MENLO 6	FRIES 6
WALNUT PK. 7	MONTARA 7	GRIDLEY 7
G. WASHINGTON 8	MULTNOMAH 8	LIMERICK 8
WOODCREST 9	122nd ST. 9	PARK AVE. 9
WOODLAKE 10	PACOIMA 10	PARK WESTERN 10

California Museum of Science and Industry
BALANCING ACTS
Providing for Today, Preserving Tomorrow
April 21, 1995

SCIENCE COMES ALIVE: BIJOU THEATER
"The Electrical Chemical Brain"

9:00 GREEN GROUP

CARSON ST: Doris Kelly
CARSON ST: Joyce Stark

10:00 BLUE GROUP

MAR VISTA : Michele JeanMarie

11:00 YELLOW GROUP

ALTA LOMA: Karen James
FRANKLIN: Daniel Kerr

California Museum of Science and Industry

BALANCING ACTS

Providing for Today, Preserving Tomorrow

April 21, 1995

GREEN GROUP SCHEDULE

CARSON ST.
CARSON ST.
HOOPER
PLUMMER
SEVENTY-FOURTH ST.
SUNRISE

TARZANA
TENTH ST.
WALNUT PARK
GEORGE WASHINGTON
WOODCREST
WOODLAKE

8:45 Registration
 Front of Education Trailers

9:00 Science Workshops
 Education Trailers

10:00 IMAX Theater: Blue Planet

10:50 Snack
 In Back of IMAX Theater

11:00 Science South
 Globe Building/Hands-on Activities

12:00 Closing Program
 Science South Cement Patio

California Museum of Science and Industry
BALANCING ACTS
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April 21, 1995

11:00-12:00 SCIENCE SOUTH

11:00-11:30 GLOBE BUILDING

TARZANA
TENTH ST
WALNUT PARK
GEORGE WASHINGTON
WOODCREST
WOODLAKE

11:00-11:30 HANDS-ON ACTIVITIES

CARSON ST.
CARSON ST.-
HOOPER
PLUMMER
SEVENTY-FOURTH ST.
SUNRISE

11:30-12:00 GLOBE BUILDING

CARSON ST.
CARSON ST.
HOOPER
PLUMMER
SEVENTY-FOURTH
SUNRISE

11:30-12:00 HANDS-ON ACTIVITIES

TARZANA
TENTH ST.
WALNUT PARK
GEORGE WASHINGTON
WOODCREST
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California Museum of Science and Industry

BALANCING ACTS

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April 21, 1995

YELLOW GROUP SCHEDULE

ALTA LOMA	FRANKLIN
ARMINTA	FRIES
BELVEDERE MS	GRIDLEY
CARTHAY CENTER	LIMERICK
DELEVAN	PARK AVENUE
DIXIE CANYON	PARK WESTERN

8:45	Registration Front of IMAX Theater
9:00	IMAX Theater: Blue Planet
9:50	Snack Table in back of IMAX Theater
10:00	Science South Globe Building/Hands-on Activities
11:00	Science Workshops Education Trailers
12:00	Closing Program Science South Cement Patio

California Museum of Science and Industry
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April 21, 1995

YELLOW GROUP
10:00-11:00 SCIENCE SOUTH

10:00-10:30 GLOBE BUILDING

ALTA LOMA
ARMINTA
BELVEDERE MS
GRIDLEY
DELEVAN
DIXIE CANYON

10:00-10:30 HANDS-ON ACTIVITIES

FRANKLIN
FRIES
GRIDLEY
LIMERICK
PARK AVENUE
PARK WESTERN

10:30-11:00 GLOBE BUILDING

FRANKLIN
FRIES
GRIDLEY
LIMERICK
PARK AVENUE
PARK WESTERN

10:30-11:00 HANDS-ON ACTIVITIES

ALTA LOMA
ARMINTA
BELVEDERE MS
GRIDLEY
DELEVAN
DIXIE CANYON

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SCIENCE WORKSHOPS-EDUCATION TRAILERS

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FRANKLIN: Daniel Kerr

Building A New World
April 21, 1995

Participating Schools From Los Angeles Unified School District

SCHOOL	TEACHER/ADDRESS
Alta Loma (213) 939-2113	Karen James 1745 Vineyard Ave Los Angeles, CA 90019
Arminta (818) 765-5911	Tami Schwartz 11530 Strathern St. North Hollywood, CA 91605
Belvedere MS (213) 266-3730	Sandra Kline 312 N. Record Ave. Los Angeles, CA 90063
Carthay Center (213) 935-8173	Alma Bibbs 6351 W. Olympic Blvd. Los Angeles, CA 90048
Delevan School (213) 255-0571	Susan Redpath 4168 W. Ave. 42 L.A., CA 90065
Dixie Canyon School (818) 784-6283	Bruce Takashima 4220 Dixie Canyon St. Sherman Oaks, CA 91423
Drew MS (213) 583-696	Kim Dallape 8511 Compton Ave. Los Angeles, CA 90001
Fries School (310) 834-6431	Toni Protti 1301 Fries Ave. Wilmington, CA 90744
Gridley School (818) 361-1243	Paul Hanson 1907 Eighth St. San Fernando, CA 91340
Patrick Henry MS (818) 363-7401	Jan Campbell 17340 San Jose St. Granada Hills, CA 91344

SCHOOL	TEACHER/ADDRESS
Hooper Ave. School (213) 232-3571	Era Steele 1225 E. 52nd St. Los Angeles, CA 90011
Limerick School (818) 341-1730	Marsha Kruger 8530 Limerick Ave. Canoga Park, CA 91306
Mar Vista School (310) 391-1175	Michele JeanMarie 3330 Granville Ave. Los Angeles, CA 90066
Menlo Ave. School (213) 232-4291	Michael Rosner 4156 Menlo Ave. Los Angeles, CA 90037
Montara School (213) 567-1451	Natalie Orange 10018 Montara Ave. South Gate, CA 90280
Multnomah School (213) 225-6005	Andrew Reynoso 2101 N. Indiana Ave. Los Angeles, CA 90032
122nd St. School (213) 757-8117	Penny Lacy 405 E. 122nd St. Los Angeles, CA 90006
Pacoima School (818) 899-0201	Sally Sharp 11016 Norris Ave. Pacoima, CA 91331
Park Ave. School (213) 773-9592	Mary Griess 8020 Park Ave. Cudahy, CA 90201
Park Western School (310) 833-3591	Helen Oshiba 1214 Park Western Pl. San Pedro, CA 90732
Plummer School (818) 895-2481	Chris Chettle 9340 Noble Ave. Sepulveda, CA 91343
Seventy Fourth St. School (213) 753-2338	Cathy Ferrin 2112 W. 74th St. Los Angeles, CA 90047

SCHOOL

TEACHER/ADDRESS

Sunrise School
(213) 263-6744

Ron Rodriguez
2821 E. 7th St.
Los Angeles, CA 90023

Tarzana School
(818) 881-1424

Daryl Johnson
5726 Topeka Dr.
Tarzana, CA 91356

Tenth Street School
(213) 380-8990

Marna Cornell
1000 Grattan St.
Los Angeles, CA 90015

Walnut Park School
() 588-3145

Jackie Palmer
2642 Olive St.
Huntington Park, CA 90255

Woodcrest School
(213) 756-1371

Jeraldine Stewart
1151 W. 109th St.
Los Angeles, CA 90044

Woodlake Ave. School
(818) 347-7097

Kelly Lauletta
23231 Hatteras St.
Woodland Hills, CA 91367

Building A New World
April 21, 1995

PARTICIPATING SCHOOLS FROM DISTRICTS OTHER THAN LOS ANGELES UNIFIED

DISTRICT/SCHOOL

TEACHER/ADDRESS

Burbank Unified Schools
George Washington Elementary
(818) 588-5550

Kirsten Paul
2322 N. Lincoln St.
Burbank, CA 91504

Compton Unified Schools
King Elementary
(310) 898-6430

Sheila Wells
2270 E. 122nd St.
Compton, CA 90222

Culver City Unified Schools
Linwood Howe School
(310) 842-4338

Joy Lund
4100 Irving Pl.
Culver City, CA 90232

Glendale Unified Schools
Franklin School
(818) 243-1809

Daniel Kerr
1610 Lake St.
Glendale, CA 91201

Santa Monica Unified Schools
Lincoln MS
(310) 393-9227

Kris Haenschke
1501 California Ave.
Santa Monica, CA 90403

AQMD CLASS
Carson Street School
(LAUSD)

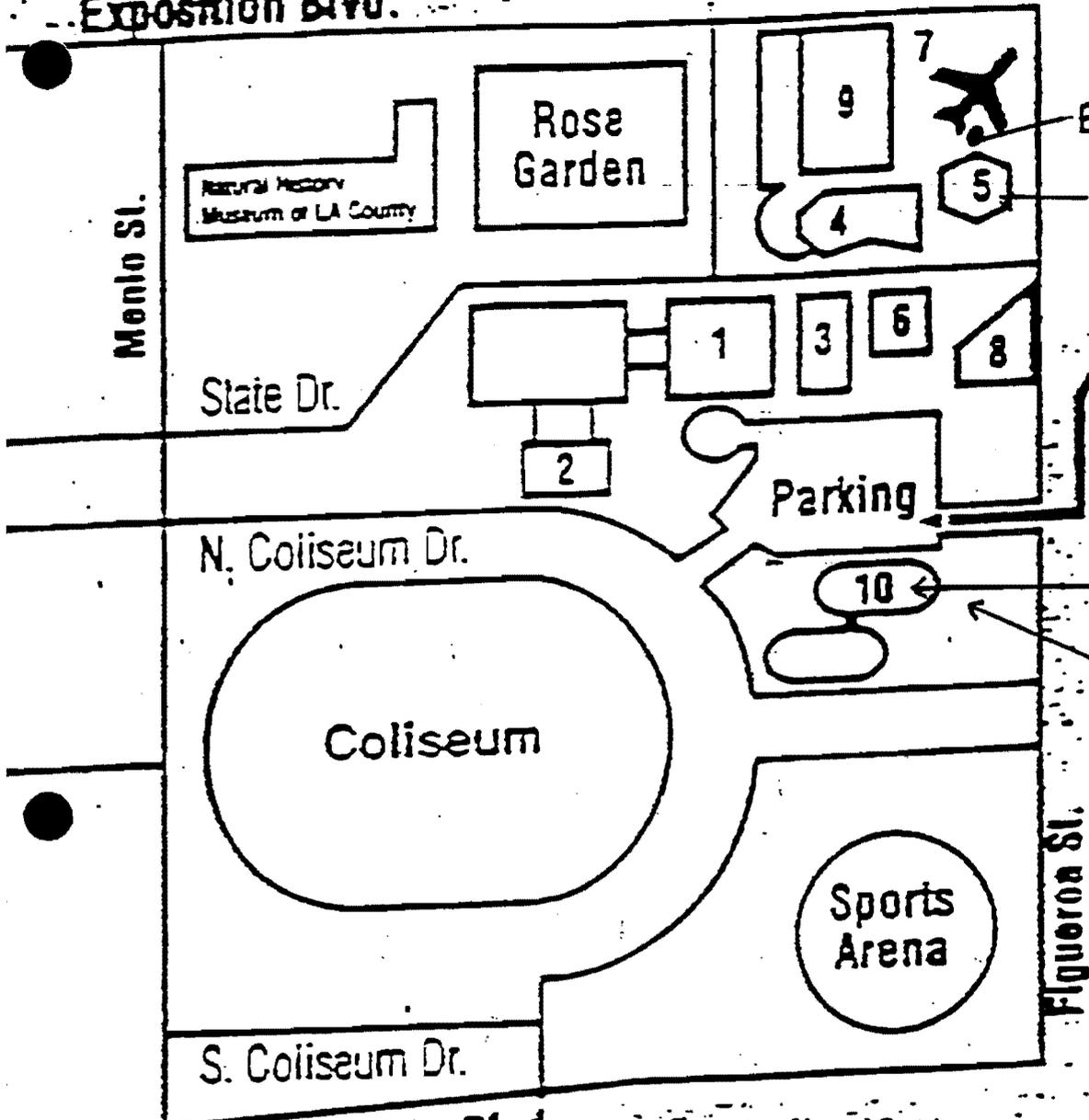
Joyce Stark
161 E. Carson St.
Carson, CA 90745

AQMD CLASS
Carson Street School
(LAUSD)

Doris Kelly
161 E. Carson St.
Carson, CA 90745

California Museum of Science and Industry

Exposition Blvd.



Education Trailers (Workshops)

IMAX

Balancing Acts
Globe Building

Cement Patio
Hands-On Activities

Martin Luther King Jr. Blvd.

- | | |
|---|--|
| 1. Technology Hall | 6. Kinsey Auditorium |
| 2. Mark Taper Hall of Economics and Finance | 7. Corwin D. Denney Air and Space Garden |
| 3. Kinsey Hall of Health | 8. California African-American Museum |
| 4. Aerospace Hall | 9. Armory Building |
| 5. IMAX Theater | 10. Science South |

May 8, 1995

Tracy Boobar
Science Resource Teacher

Dear Tracy,

What a great time we had on April 21, 1995. The entire museum felt the excitement as 1200 students filled the exhibit halls in their hardhats. Your enthusiasm and support made the day run smoothly and helped provide the students with a variety of experiences.

I can still see students, teachers, docents, and other museum support personnel outside using the photovoltaic solar cells to pump water. It was terrific!

Thank you for providing an exciting hands-on experience for kids. I think this was a day the students will remember for a long time, and I know it had a very positive effect on the Museum and our collaboration with LAUSD.

I look forward to future projects with you.

Sincerely,

Linda Wootan, Curriculum Supervisor
Education Department



Balancing Acts

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