

The
Children's
Handbook

for
Disaster Preparedness

Acknowledgements

This handbook was developed by Jennifer Worrell, Regional Advisor for the Caribbean in the Latin American and Caribbean Office of U.S. Foreign Disaster Assistance (OFDA), United States Agency for International Development (USAID). It was modelled after the "Children's Handbook" prepared by the Office of Disaster Preparedness in the British Virgin Islands which was itself edited by Jennifer Worrell.

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The Children's Handbook was reviewed and edited for the 2007 version with the assistance of Rene Carrillo, Julie Leonard, Alan Ross and Deidra Spencer.

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Why have we done The Children's Handbook for you



The Children's Handbook for Disaster Preparedness is designed to teach you more about hurricanes in the Caribbean. This booklet will help you understand how hurricanes form, and what will probably happen if a hurricane hits your island.

Most importantly, this booklet will teach you what to do to prepare for hurricanes, such as making an emergency supplies kit ahead of time and tracking hurricanes as they approach your island. This booklet will tell you what to do - and what not to do - when a hurricane hits. By using this booklet, you will help your family be better prepared for hurricanes and related disasters.

While this booklet focuses on hurricanes, other hazards that the Caribbean experiences are included as well



Welcome!

Hi everyone!

Welcome to our handbook on disaster preparedness. This book is about you and your region, the Caribbean – one of the best places to live in the world!

In this book, you'll learn all about your region. It will tell you about your country, how many people live there, how big it is, and what the capital city is. Look on pages 44 to 48.

As this book is about disaster preparedness, it will also tell you all about the different hazards that can affect your country. The book will tell you what you have to do to make sure that you and your family are as well prepared and as safe as possible. You'll learn some important new words. Look for these on pages 54 to 55.

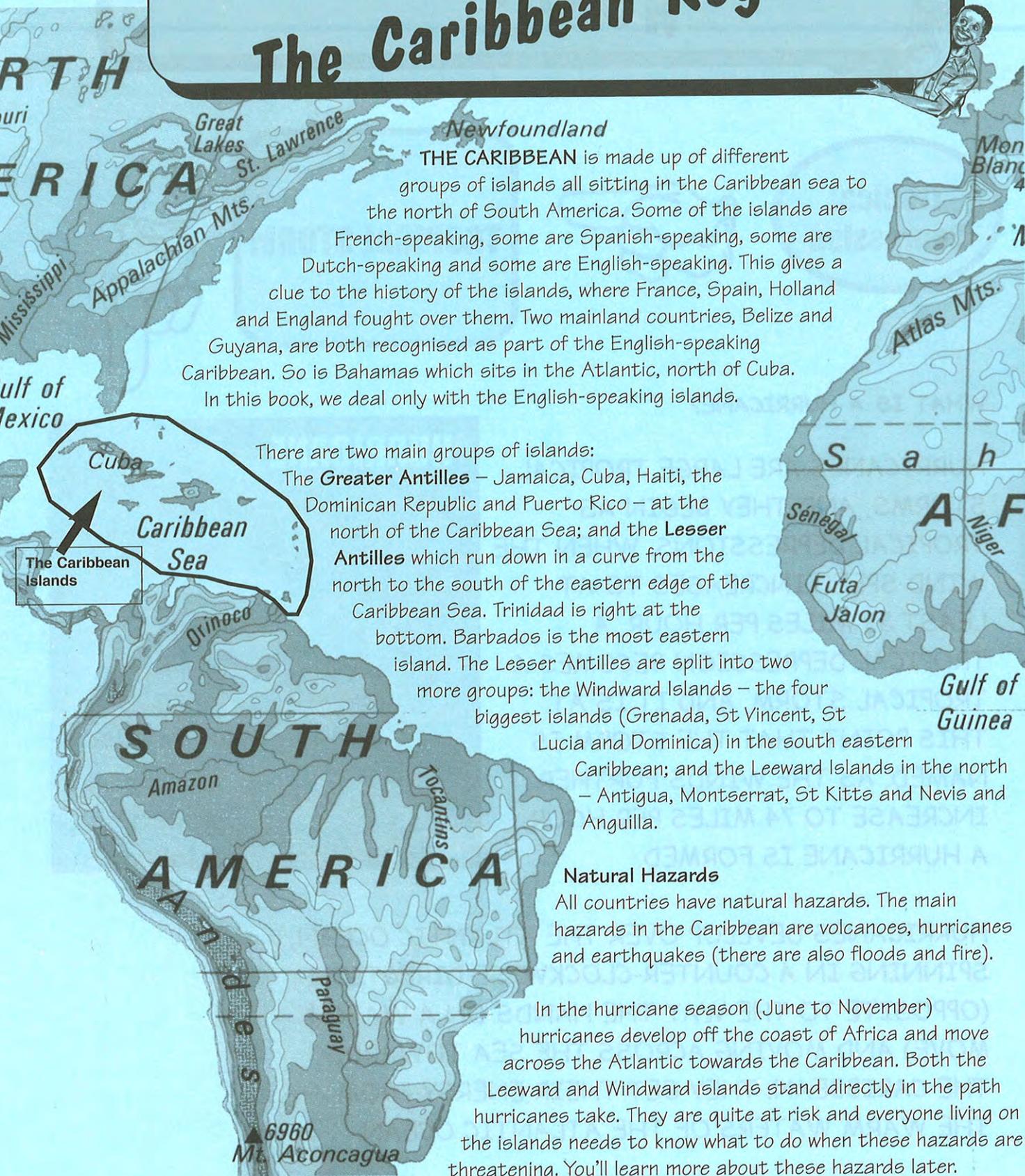
There are plenty of pictures, games, quizzes and challenges, all designed to help you learn about your safety. All the answers are in the book! By the end of the book, you and your family should know a lot more about how to stay safe! Be sure to tell your friends and teachers about it, so that all of you know what to do.

You can start by learning all about the Caribbean – just turn to the next page!

Good luck!



The Caribbean Region



Newfoundland
THE CARIBBEAN is made up of different groups of islands all sitting in the Caribbean sea to the north of South America. Some of the islands are French-speaking, some are Spanish-speaking, some are Dutch-speaking and some are English-speaking. This gives a clue to the history of the islands, where France, Spain, Holland and England fought over them. Two mainland countries, Belize and Guyana, are both recognised as part of the English-speaking Caribbean. So is Bahamas which sits in the Atlantic, north of Cuba. In this book, we deal only with the English-speaking islands.

There are two main groups of islands:

The **Greater Antilles** – Jamaica, Cuba, Haiti, the Dominican Republic and Puerto Rico – at the north of the Caribbean Sea; and the **Lesser Antilles** which run down in a curve from the north to the south of the eastern edge of the Caribbean Sea. Trinidad is right at the bottom. Barbados is the most eastern

island. The Lesser Antilles are split into two more groups: the Windward Islands – the four biggest islands (Grenada, St Vincent, St

Lucia and Dominica) in the south eastern Caribbean; and the Leeward Islands in the north – Antigua, Montserrat, St Kitts and Nevis and Anguilla.

Natural Hazards

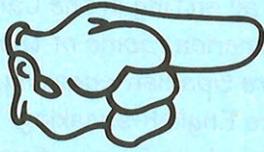
All countries have natural hazards. The main hazards in the Caribbean are volcanoes, hurricanes and earthquakes (there are also floods and fire).

In the hurricane season (June to November) hurricanes develop off the coast of Africa and move across the Atlantic towards the Caribbean. Both the Leeward and Windward islands stand directly in the path hurricanes take. They are quite at risk and everyone living on the islands needs to know what to do when these hazards are threatening. You'll learn more about these hazards later.



HURRICANES

**Tropical
Depression**

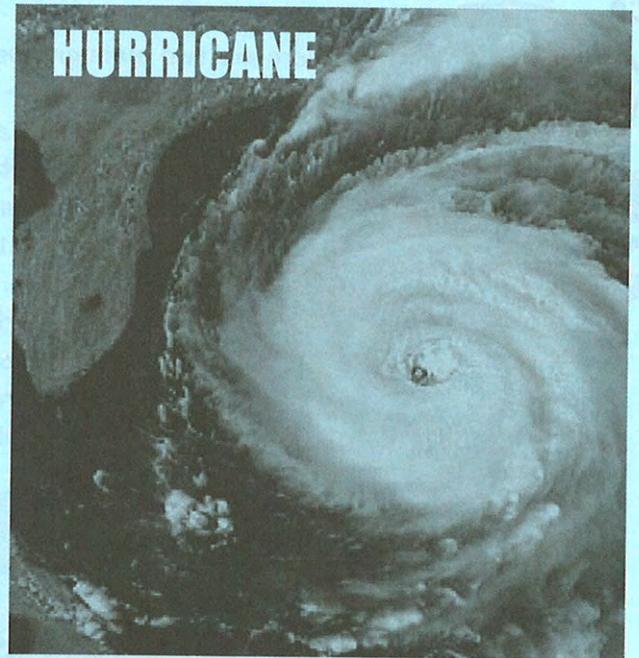


TROPICAL STORM



WHAT IS A HURRICANE?

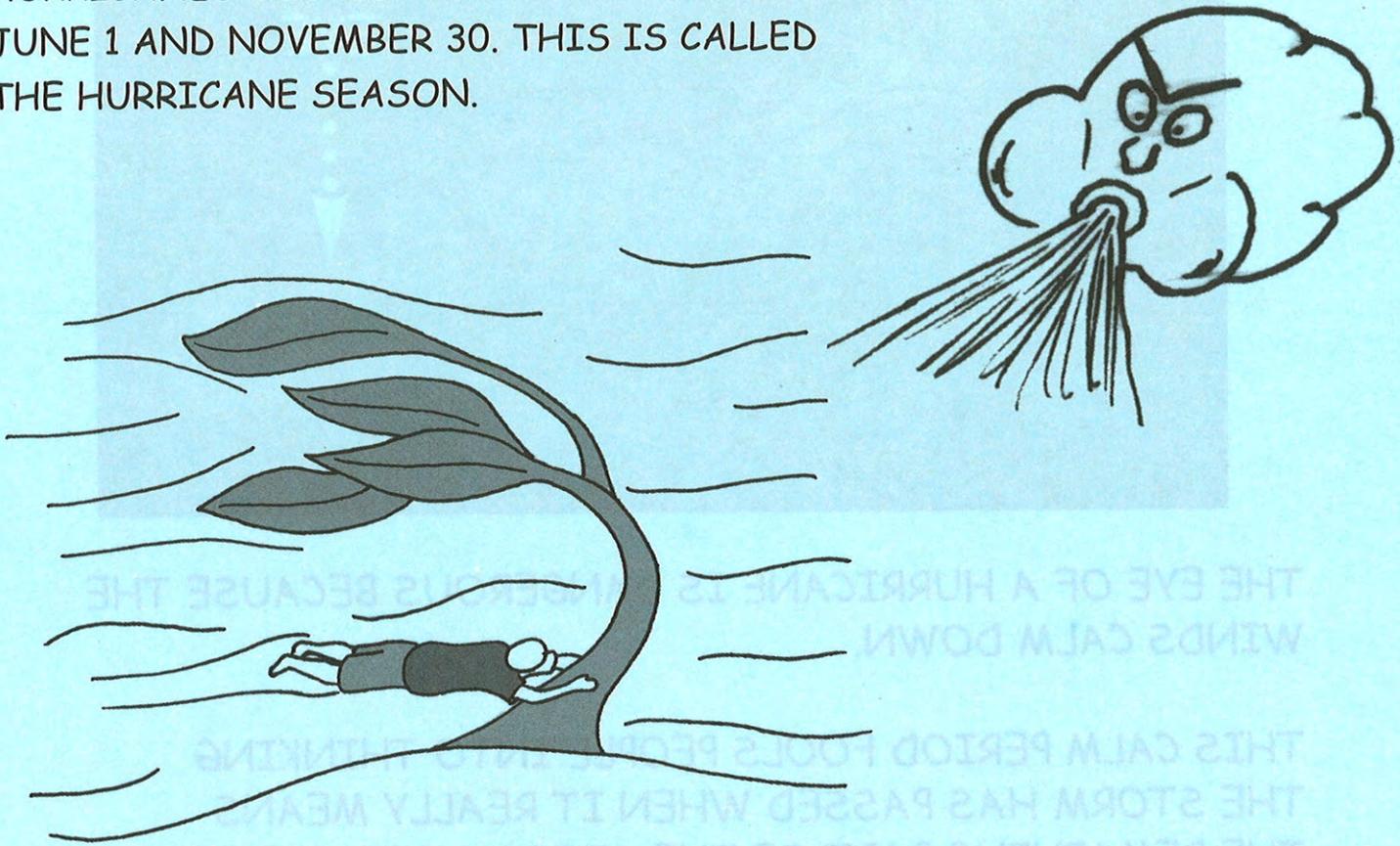
HURRICANES ARE LARGE TROPICAL STORMS, AND THEY BEGIN AS TROPICAL DEPRESSIONS. WHEN THE WIND SPEED INCREASES TO AT LEAST 39 MILES PER HOUR, A TROPICAL DEPRESSION BECOMES A TROPICAL STORM, AND IT IS AT THIS POINT THAT THE STORM IS NAMED. AS THE WINDS FURTHER INCREASE TO 74 MILES PER HOUR, A HURRICANE IS FORMED.



HURRICANES DEVELOP OVER THE ATLANTIC OCEAN, SPINNING IN A COUNTER-CLOCKWISE DIRECTION (OPPOSITE TO THE WAY THE HANDS ON A WATCH MOVE) AND MOVING ACROSS THE SEA TOWARDS THE CARIBBEAN. THEY GET THEIR ENERGY FROM THE WARM WATERS OF THE ATLANTIC OCEAN.

SOME HURRICANES STAY OVER THE OCEAN WHILE OTHERS COME ON THE LAND.

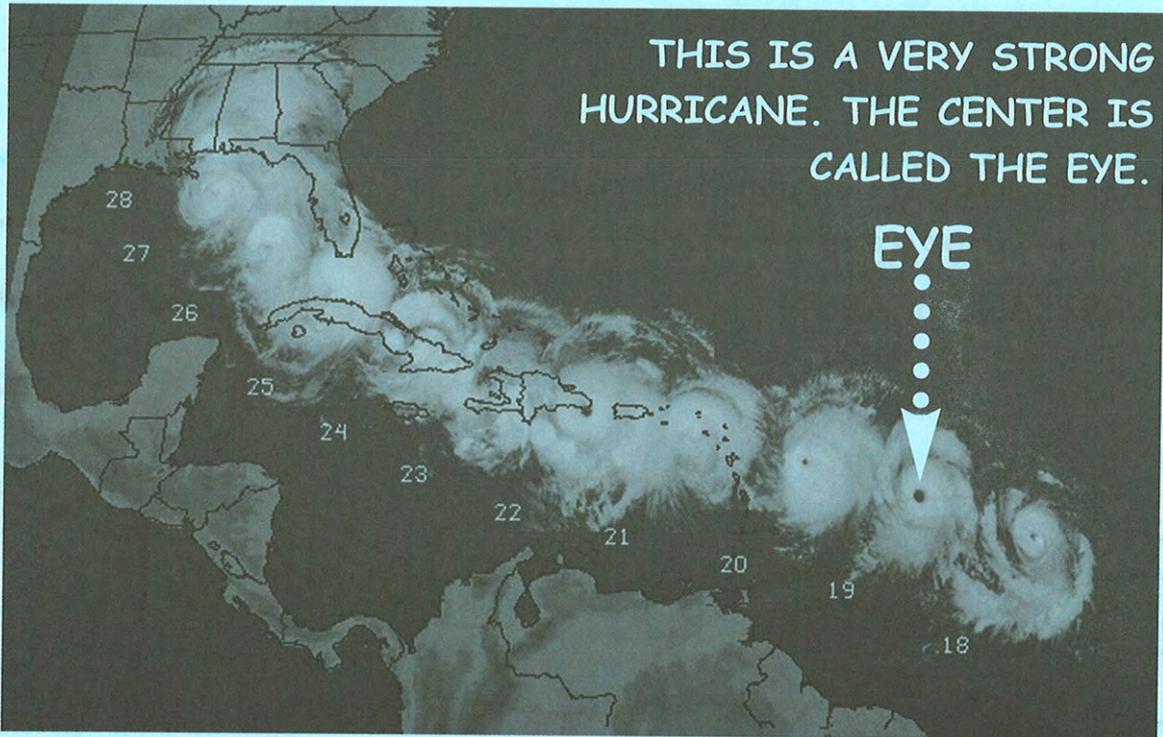
HURRICANES USUALLY OCCUR BETWEEN JUNE 1 AND NOVEMBER 30. THIS IS CALLED THE HURRICANE SEASON.



HURRICANE WIND SPEEDS ARE AT LEAST 74 MILES PER HOUR. THEY BRING WITH THEM RAIN, HIGH WAVES AND FLOODS.

FLOODS ARE THE MOST DANGEROUS PART OF A HURRICANE BECAUSE THE FLOOD WATER MAY HAVE A CURRENT THAT COULD WASH SOMEONE AWAY.

EVEN IF THE WATER ISN'T THAT HIGH, YOU COULD STILL DROWN. YOU HAVE TO BE VERY CAREFUL.



THE EYE OF A HURRICANE IS DANGEROUS BECAUSE THE WINDS CALM DOWN.

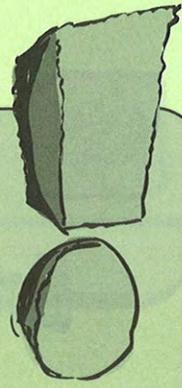
THIS CALM PERIOD FOOLS PEOPLE INTO THINKING THE STORM HAS PASSED WHEN IT REALLY MEANS THE REMAINING PART OF THE STORM WITH ITS VERY STRONG WINDS WILL SOON ARRIVE.

AS A HURRICANE APPROACHES LAND, ITS EXPECTED PATH OR DIRECTION CAN CHANGE, AND THAT IS WHY IT IS SO IMPORTANT TO BE READY TO EVACUATE WHEN YOU ARE TOLD TO DO SO.

IN OTHER REGIONS OF THE WORLD, LIKE THE PACIFIC AND INDIAN OCEANS, HURRICANES ARE CALLED TYPHOONS, WILLY WILLY, AND CYCLONES.



What to do at the beginning of the hurricane season



Remind your parents to:



Develop a family disaster plan. This will show all the instructions for family members in the event of a hurricane, earthquake, or flood.



Trim garden trees with long branches. In hurricane strength winds, branches can be torn off the trees and there's a chance that you could be badly injured if you are hit by a branch.



Teach you how to track a hurricane and go over the new hurricane names for this season with you.



Fasten the galvanized sheeting on your roofs, outhouses, and fences.



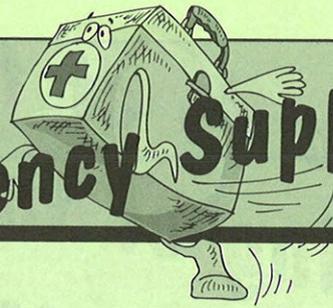
Start collecting water in plastic bottles, and keep them in a safe storage place.



Begin putting together an emergency supplies kit.



Emergency Supplies Kit

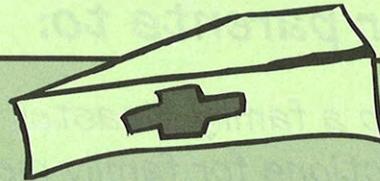


Show this page to your family as an example for your family's personal kit.



Canned Foods

milk, meats, vegetables, soups, fruits, juices, powdered drinks, cereal, and baby food, if needed



First Aid Kit

prescription medicine, antacid, bleach, disinfectant, insect repellent, cotton, petroleum jelly, safety pins, bandages, dressings, antiseptic cream



Clothing and Linen

comfortable clothing, slacks, t-shirts, socks, underwear, footwear, sheets, blankets, towels

Bottled Water

water purification tablets (1 tablet per quart of water)



Toiletries

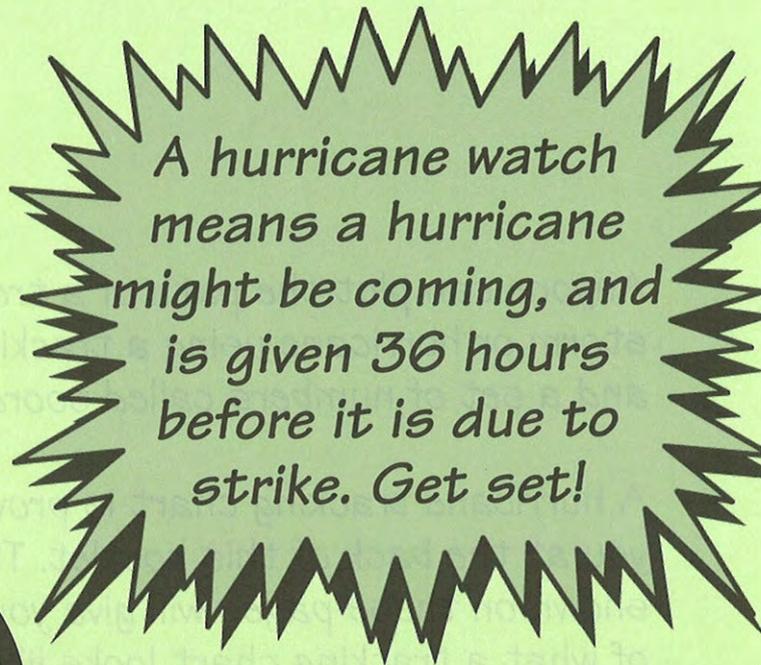
toilet paper, toothbrush and toothpaste, soap, napkins



BEFORE the Hurricane Hurricane Watch



When a Hurricane Watch is announced, it means that a hurricane might be coming. This is the time when you and your parents should get together and do the following ...



A hurricane watch means a hurricane might be coming, and is given 36 hours before it is due to strike. Get set!

Track the hurricane on your chart. Weather stations, web sites and the USAID Regional Advisor track the hurricane and give information to parents. So let them help you track the hurricane.

Start collecting water bottles for filling in case the situation gets worse.

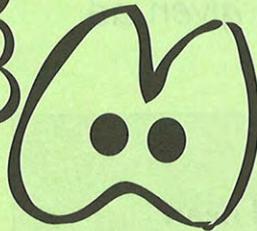
I'm watching you!!

Make sure you have made plans for your family pets.

Review your family disaster plan. Find a sample at www.redcross.org

Listen to local radio and TV for weather reports.

Help your parents check your family's Emergency Supplies Kit to see if everything is fresh.



How to Track a Hurricane



Anyone can plot the path of a tropical storm or hurricane using a tracking chart and a set of numbers called coordinates.

A hurricane tracking chart is provided for you at the back of this booklet. The one shown on these pages will give you an idea of what a tracking chart looks like.

During an approaching storm, the coordinates are broadcast over the radio and television, or given to the parents at USAID Missions by the Regional Advisor. The coordinates are given as two numbers.

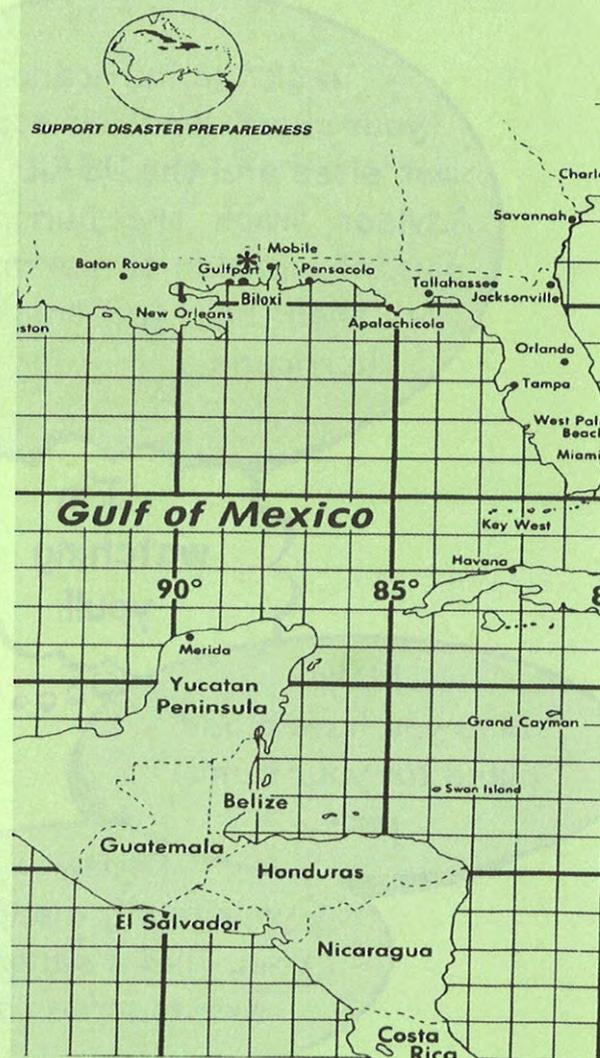
EXAMPLE

Day 1: Hurricane Marilyn is located near:

16.0 degrees North latitude and
61.8 degrees West longitude (see on
the chart). Now you plot on the chart:

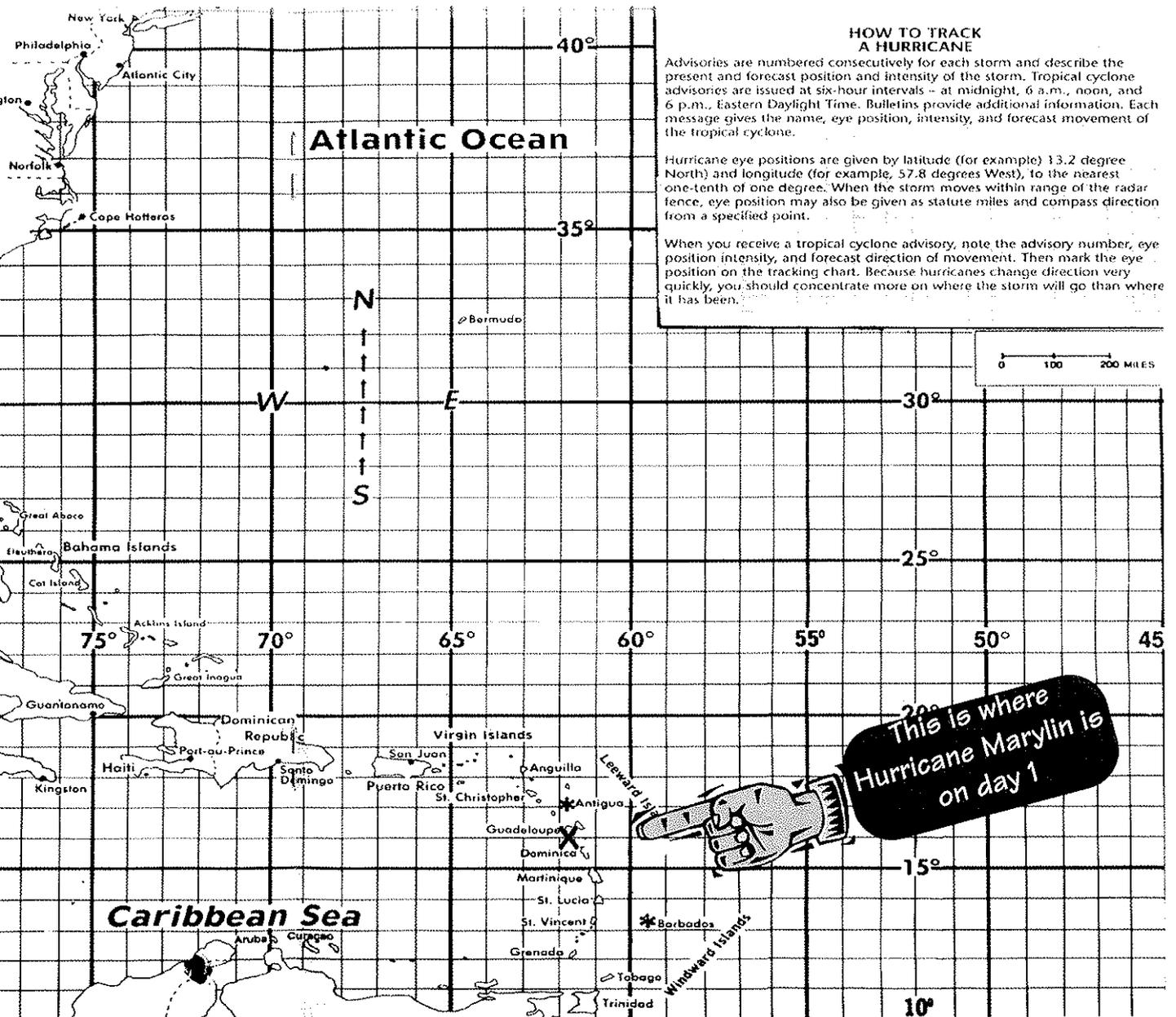
Day 2: 16.5 degrees North latitude and
63.8 degrees West Longitude

HURRICANE TRACKING CHART



The tracking chart has two sets of lines: one set is drawn horizontally (across the page) and is called lines of latitude. The other set is drawn vertically (down the page) and is called lines of longitude. Locate each line according to the values given (latitude and longitude lines). The point where these lines intersect, or meet each other, represents the present position of the eye of the storm.

Now follow the lines on the chart to locate Hurricane Marilyn for the coordinates given. New coordinates are broadcast every six hours on your local radio stations.





BEFORE the Hurricane Warning

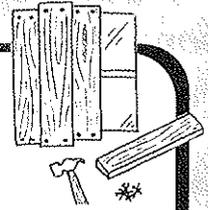
Things to do ...



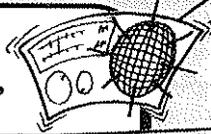
A hurricane warning means a hurricane is near and is expected to strike within 24 hours. Go to safety!



When a tropical storm turns into a hurricane, the winds become so strong that they could break windows. Help your parents board or tape up the windows at home.



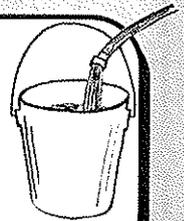
When a hurricane starts approaching, you'll know because a warning will be broadcast on the radio and TV and sent to parents.



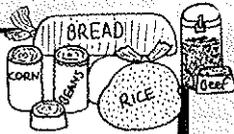
Ask your parents to get gas in the car in case you have to evacuate.



Stock up a lot of clean water in all the bottles or buckets that you helped collect.



Ask your parents if there's enough food and supplies for about 4 to 5 days.



Keep listening to your radio and TV reports.



DURING the Hurricane

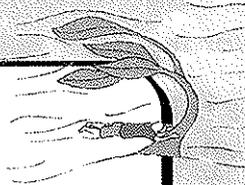
Things to do ...



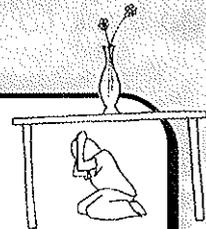
When the hurricane hits, you kids might be scared and excited at the same time. Remember, the best thing to do in a hurricane is to stay as calm as possible. You and your parents can be a team and be safe together.



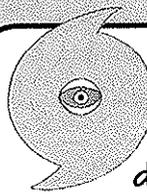
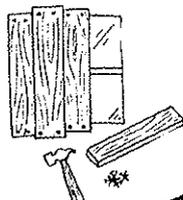
Stay inside the house. You never know what could fly through the air in a hurricane and hit you. The wind could even sweep a child away.



If you think part of your house is breaking up, get under a table or doorway and protect your head.



Remind your parents to protect your windows. Boarding them up with wood is preferable. If this isn't possible, use cloth coverings to protect against shattered glass.



The center of the storm is the eye where the wind calms down. If the storm seems to go quiet, it might not be over yet. The eye might be directly over you. Don't be fooled by the eye.



AFTER the Hurricane

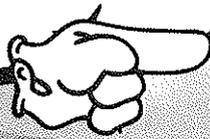
Things to do ...



Hurricanes do not last forever, but can cause a lot of destruction during their short life.

The Office of Disaster Preparedness and Emergency Management in your country will tell you when it is safe to go back to your home or go outside.

Remind your parents to:



- Check for injuries.
- Not talk on the telephone unless it is an emergency.
- Look for damage to the house and make repairs.
- Volunteer to help clear the roads in your neighborhood.
- Watch for loose power lines, broken water or gas lines.
- Make sure electrical outlets are dry before using them.
- Use your stored or boiled tap water.
- Check food in refrigerator.
- Watch for snakes, animals and insects.
- Avoid driving and sightseeing.
- Keep listening to the radio for instructions.

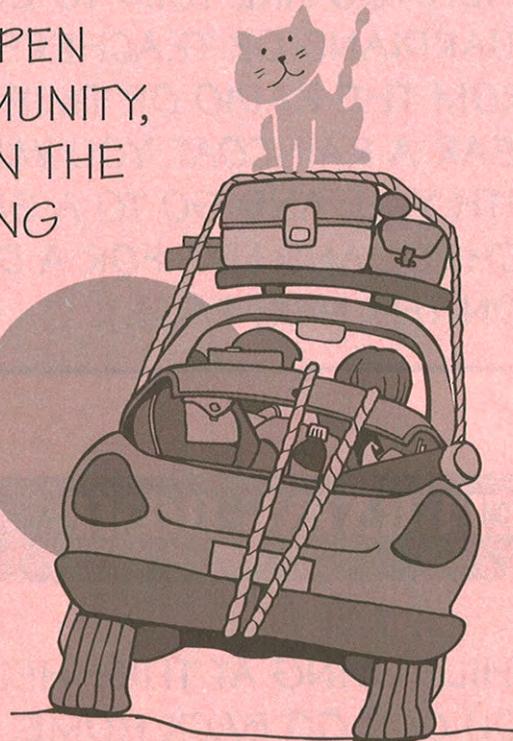


What is an Evacuation?

HURRICANES, FLOODS, EARTHQUAKES, FIRES, VOLCANIC ERUPTIONS, AND LIGHTNING ARE ALL NATURAL HAZARDS WHICH CAN THREATEN EVERYONE, FORCING THEM TO LEAVE THEIR HOMES AND GO TO A SAFER AREA. THIS IS AN EVACUATION.

WHEN ONE OR MORE OF THESE DISASTERS ARE GOING TO HAPPEN AND MIGHT AFFECT YOUR COMMUNITY, YOU WILL HEAR INFORMATION ON THE RADIO AND TV ABOUT EVACUATING YOUR HOME OR COMMUNITY.

YOU SHOULD LISTEN TO YOUR RADIO OR TV REGULARLY FOR NEWS ON WHETHER YOU SHOULD EVACUATE YOUR HOME AND GO TO A SAFER PLACE.



GETTING READY

IT IS IMPORTANT FOR DADDY & MOMMY TO GET THE WHOLE FAMILY READY FOR AN EVACUATION.

THEY WILL NEED TO PUT TOGETHER IMPORTANT THINGS, SUCH AS CANNED FOOD AND WATER, BEFORE A BAD STORM COMES AND TRAPS YOU AT HOME.

EVACUATING

WHEN YOU ARE TOLD TO EVACUATE, YOUR PARENTS, GUARDIANS OR TEACHERS WILL GET ALL THE INFORMATION FROM THE RADIO OR TV. IF IT IS RAINING, YOU WILL NEED TO WEAR A RAINCOAT. YOU WILL TAKE ONLY IMPORTANT THINGS WITH YOU, AND GO TO A SHELTER WHICH IS USUALLY A SCHOOL AND LIVE FOR A DAY OR TWO. USE YOUR CHECKLIST (ON THE NEXT PAGE).

RETURNING HOME

WHILE LIVING AT THE SHELTER, YOU WILL BE TOLD WHEN YOU CAN GO BACK HOME. WHEN YOU ARRIVE AT HOME, MOMMY AND DADDY NEED TO MAKE SURE EVERYTHING (SUCH AS THE HOUSE AND YARD) IS SAFE, AND THAT THE DRINKING WATER AND FOOD ARE GOOD.



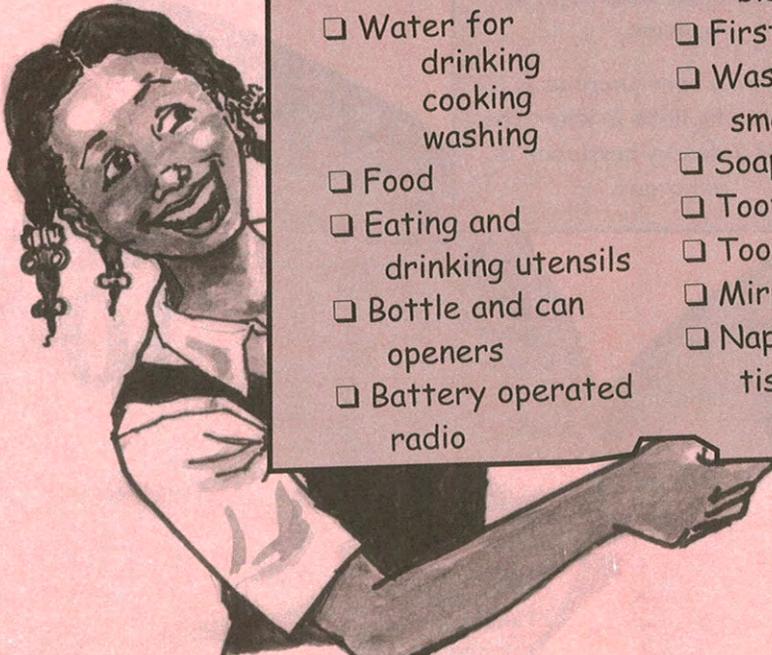
CHECKLIST

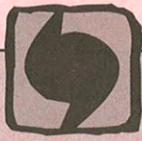
Things to do ...



On this checklist you will find important things that will help you and your family prepare for evacuations and living in shelters.

- Water for drinking cooking washing
 - Food
 - Eating and drinking utensils
 - Bottle and can openers
 - Battery operated radio
 - Extra batteries
 - Lantern and fuel
 - Matches
 - Clothes for every one
 - Pillows
 - Sleeping bags or blankets
 - First Aid kit
 - Washcloth and small towel
 - Soap
 - Toothbrush
 - Toothpaste
 - Mirror
 - Napkins and tissues
- FOR THE BABY**
- Clothes
 - Pampers
 - Milk or formula
 - Powder & cream
 - Bottles & nipples
 - Food
 - Toys
 - Portable crib





Names for Hurricanes

'07

Andrea
Barry
Chantal
Dean
Erin
Felix
Gabrielle
Humberto
Ingrid
Jerry
Karen
Lorenzo
Melissa
Noel
Olga
Pablo
Rebekah
Sebastien
Tanya
Van Wendy

'08

Bertha
Cristobal
Dolly
Edouard
Fay
Gustav
Hanna
Ike
Josephine
Kyle
Laura
Marco
Nana
Omar
Paloma
Rene
Sally
Teddy
Vicky Wilfred

NAME FACTS

- From 1979, men's and women's names have been alternated.
- Six name lists are used in rotation.
- The only time there is a change to the lists is when the name of a deadly hurricane is removed.

'09

Anna
Bill
Claudette
Danny
Erika
Fred
Grace
Henri
Ida
Joaquin
Kate
Larry
Mindy
Nicholas
Odette
Peter
Rose
Sam
Teresa
Victor Wanda

'10

Alex
Bonnie
Colin
Danielle
Earl
Fiona
Gaston
Hermine
Igor
Julia
Karl
Lisa
Matthew
Nicole
Otto
Paula
Richard
Shary
Thomas
Virginie Walter



Windy Questions



!!Safety Tip!!

By being ready with emergency supplies and knowing what to do before, during and after a hurricane, you, your family, and friends can be safer if a hurricane comes to your region.

1. WHAT IS A HURRICANE? _____

2. WHAT DO HURRICANES BRING WITH THEM? _____

3. WHAT IS THE MOST DANGEROUS PART OF A HURRICANE?

4. WHEN DO HURRICANES TAKE PLACE? _____

5. WHAT ARE THREE THINGS TO DO BEFORE A HURRICANE?
1) _____
2) _____
3) _____

6. WHAT ARE SOME THINGS YOU CAN DO DURING A HURRICANE?

7. WHAT ARE SOME THINGS THAT YOU CAN REMIND YOUR PARENTS TO DO AFTER A HURRICANE?

8. WHAT CAN CAUSE AN EVACUATION OF YOUR HOUSE AND NEIGHBORHOOD?

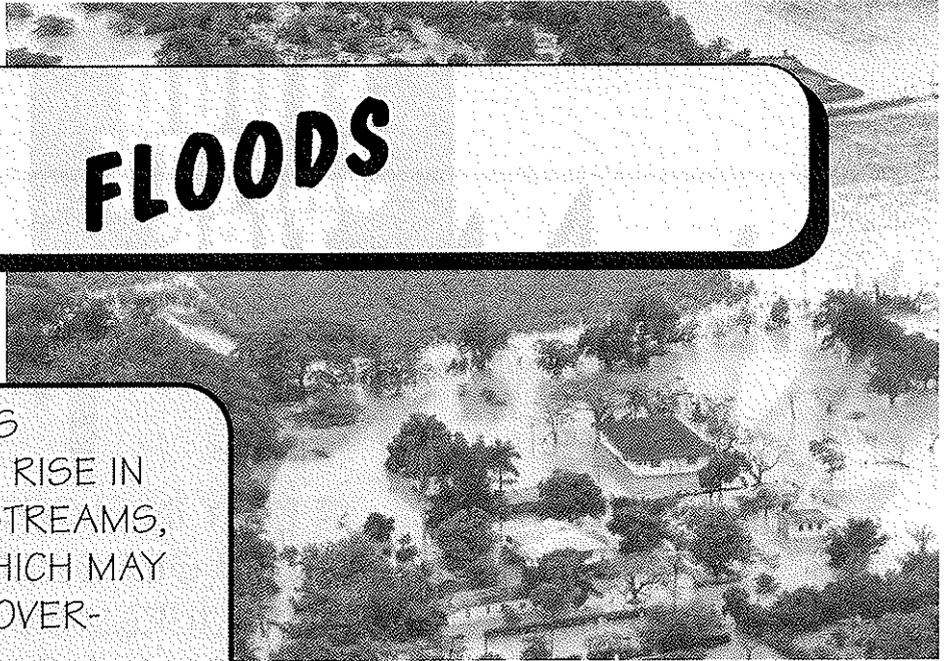
Did You Know?

THE SECOND BIGGEST NATURAL DISASTER IN THE REGION WAS A HURRICANE THAT HIT THE CARIBBEAN ON OCTOBER 7, 1963. 7,258 PEOPLE DIED.

THE BIGGEST NATURAL DISASTER OCCURRED WHEN MARTINIQUE'S SOUFRIERE VOLCANO ERUPTED ON MAY 8, 1962, KILLING OVER 40,000 PEOPLE.



FLOODS



A FLOOD IS CAUSED BY A RISE IN THE WATER LEVEL OF STREAMS, RIVERS OR THE SEA WHICH MAY RESULT IN THE WATER OVERFLOWING ITS BANKS.



FLOODS ARE CAUSED BY HEAVY RAINFALL, TSUNAMIS (TIDAL WAVES), STORM SURGES, AND BURST WATER MAINS.



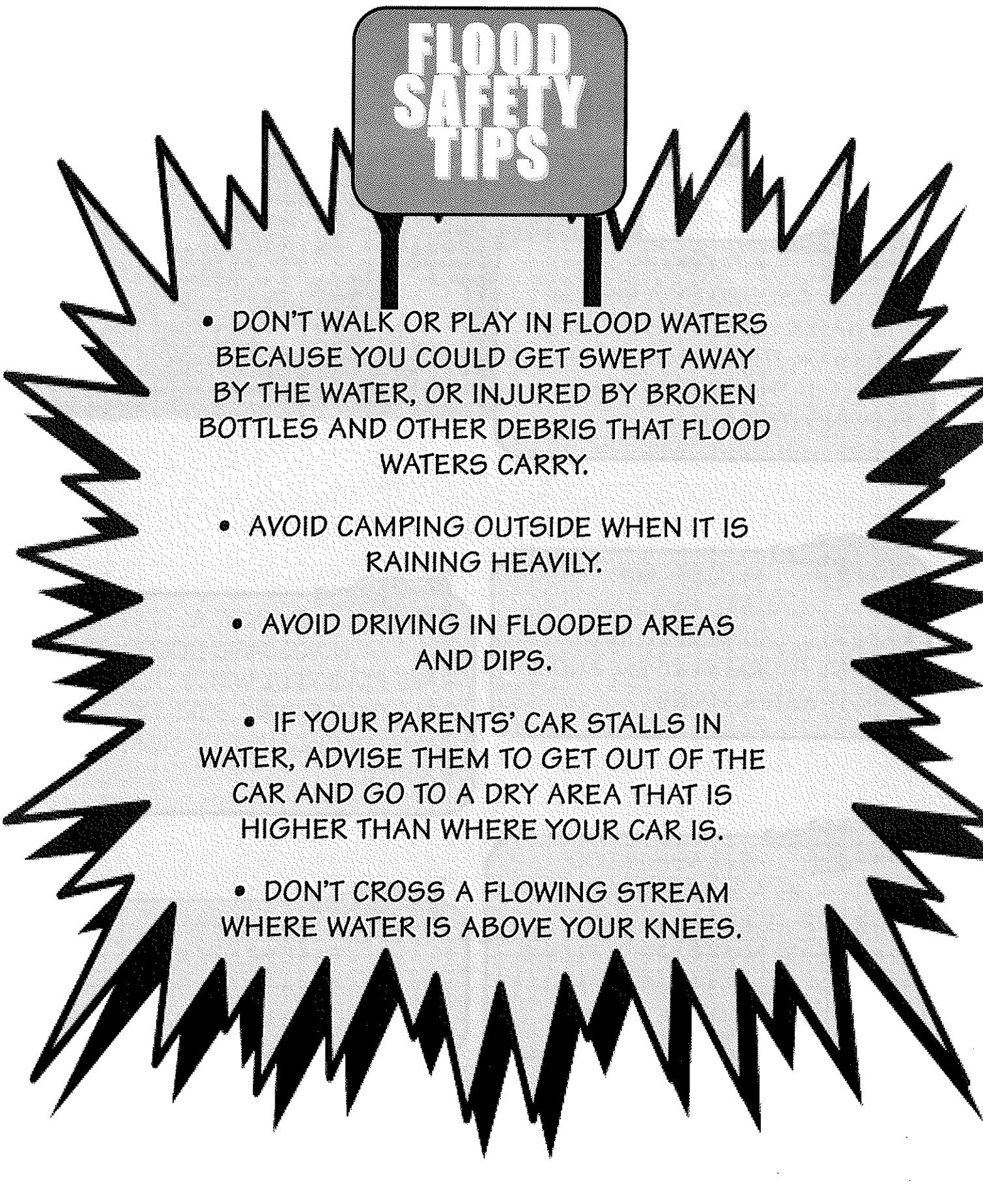
EVEN IF A HURRICANE DOES NOT HAVE POWERFUL WINDS, IT CAN STILL CAUSE VERY SERIOUS DAMAGE BECAUSE OF HEAVY RAINFALL.



A FLASH FLOOD IS A SUDDEN AND EXTREME INCREASE IN THE VOLUME OF WATER WHICH FLOWS RAPIDLY AND OVERFLOWS INTO FIELDS AND BUILT-UP AREAS.



REMEMBER THAT HEAVY RAINS IN NEARBY AREAS COULD CAUSE FLOODING AROUND YOUR HOME.



FLOOD SAFETY TIPS

- DON'T WALK OR PLAY IN FLOOD WATERS BECAUSE YOU COULD GET SWEEPED AWAY BY THE WATER, OR INJURED BY BROKEN BOTTLES AND OTHER DEBRIS THAT FLOOD WATERS CARRY.
- AVOID CAMPING OUTSIDE WHEN IT IS RAINING HEAVILY.
- AVOID DRIVING IN FLOODED AREAS AND DIPS.
- IF YOUR PARENTS' CAR STALLS IN WATER, ADVISE THEM TO GET OUT OF THE CAR AND GO TO A DRY AREA THAT IS HIGHER THAN WHERE YOUR CAR IS.
- DON'T CROSS A FLOWING STREAM WHERE WATER IS ABOVE YOUR KNEES.



1. WHAT IS A FLOOD?

2. WHAT IS ONE THING THAT MAY CAUSE A FLOOD?

3. WHAT IS A FLASH FLOOD?

4. LIST THREE (3) FLOOD SAFETY TIPS THAT CAN HELP YOU TO SURVIVE IF YOUR COMMUNITY WERE TO FLOOD.

1) _____

2) _____

3) _____

5. IF YOU AND YOUR FAMILY ARE OUT DRIVING AND YOU HAPPEN TO BE IN AN AREA THAT IS FLOODING, WHAT SHOULD YOU DO?



EARTHQUAKES

!!Safety Tip!!
In an earthquake be safe, be turtle safe.

Get under a desk or table and use it for protection just like the turtle uses his shell.

The graphic features a jagged, starburst border. Inside, there is a cartoon turtle on the left. To its right is a table with a vase on top, and a person is crouching under the table. The text is arranged around these illustrations.

WHAT IS AN EARTHQUAKE?

An earthquake is a sudden shaking of the earth caused by the breaking and shifting of rocks beneath the earth's surface. Many islands, like Jamaica, are in an earthquake zone and will experience earthquakes every now and then.

When an earthquake occurs, buildings can collapse and the earth can crack open.

There are no warnings for when an earthquake is going to occur. The earth begins to tremble and in a few seconds buildings, bridges, roads, homes, etc., can be totally destroyed.

WHEN YOU FEEL AN EARTHQUAKE . . .

If you are inside your house, you will feel it shaking. If you are outside, you will feel the ground shaking too! If you are in school, get under your desk IMMEDIATELY and try to remain quiet and calm. When the shaking stops, your teacher will instruct you to go outside into an open field in an orderly manner. Don't goof around. An earthquake is a serious thing.

TAKE NOTE

If outside the house,
stay outside.

Get under a strong desk
or table and protect your head
and face.

If in a car, tell
your parents not to
drive over a bridge or
under electrical wires
and buildings.

Keep away from
fallen buildings and
electrical wires.

Stay away from
windows, tall furniture,
and glass.

Keep calm and stay where
you are.

If inside a house,
stand in a doorway.

Be prepared for
aftershocks.



Earthquake Quiz

IF YOU ARE IN A CAR DURING AN EARTHQUAKE,
URGE YOUR PARENTS TO STOP THE CAR AND PARK IN AN
OPEN AREA. STAY INSIDE THE CAR.

(Fill in the blanks to complete the words below.)

Cars should stay away from:

-U--D-----

-R-----

E-----WIRES

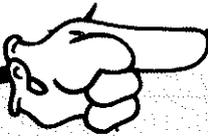


AFTER an Earthquake

Things to do ...
things NOT to
do ...



DO...



- Check for broken water pipes.
- Collect water.
- Stay away from buildings that might have been weakened.
- Check for spilled liquids, especially those liquids that are flammable, like gasoline.
- Check for injuries – First Aid should be given if necessary.
- Check for fires.
- Check your home for damage.
- Remain calm.

DO NOT...



- Light a match or turn on a light switch. Instead use a flashlight.
- Touch fallen power lines or electrical wires.
- Use the telephone except for emergency purposes only.
 - Go to the beach to watch for giant sea waves.
- Go sightseeing! Instead leave the streets clear for emergency and rescue workers.
- Attempt to move seriously injured persons unless they are in danger again.

A graphic header for a worksheet. It features a dark, rounded rectangular background. On the left, there is a small square inset showing a city skyline with a building that appears to be shaking or falling. To the right of this inset, the words "Shaking Questions" are written in a large, bold, black, sans-serif font. A large, stylized question mark is positioned behind the text, partially overlapping it.

Shaking Questions

1. WHAT IS AN EARTHQUAKE? _____

2. WHAT CAUSES AN EARTHQUAKE? _____

3. DO YOU KNOW WHEN AN EARTHQUAKE IS GOING TO HAPPEN?
YES/NO _____

4. HOW LONG DOES IT TAKE FOR BUILDINGS, HOMES, TOWNS,
ETC., TO BE DESTROYED BY AN EARTHQUAKE?

5. WHAT ARE FIVE (5) THINGS YOU CAN DO TO HELP PROTECT
YOURSELF DURING AN EARTHQUAKE?

1) _____

2) _____

3) _____

4) _____

5) _____

6. WHAT ARE THREE (3) THINGS YOU CAN DO AFTER AN EARTHQUAKE?

1) _____

2) _____

3) _____

7. WHAT ARE FOUR (4) THINGS THAT YOU SHOULD **NOT** DO IMMEDIATELY AFTER AN EARTHQUAKE?

1) _____

2) _____

3) _____

4) _____

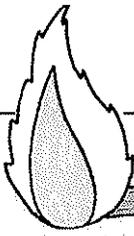
Did You Know?

EVERY YEAR AROUND THE WORLD THERE ARE ABOUT 1,000 EARTHQUAKES AND ENOUGH TO CAUSE DAMAGE.

THE WORST EARTHQUAKE WAS IN CHINA IN 1976 AND 250,000 PEOPLE ARE SAID TO HAVE BEEN KILLED.

EARTHQUAKES CAN CAUSE UNDERSEA SHOCKS WHICH SEND HUGE TIDAL WAVES, CALLED TSUNAMIS, ACROSS THE OCEAN.

THE WORST EARTHQUAKE IN THE CARIBBEAN HIT FORT ROYAL, JAMAICA, IN 1692 - IT CAUSED MOST OF FORT ROYAL TO SINK BENEATH THE SEA.



FIRES

!!Safety Tip!!

Make sure your house has at least one fire extinguisher. This must be checked every year to make sure it is working properly.

WHAT IS A FIRE?

A fire is the destructive burning of material which produces light, flame, heat, and smoke.

Fire spreads quickly, and you have no time to grab valuables such as your teddy bear or make a phone call. In two minutes a room that is burning can become deadly. In five minutes your house can be filled with flames.

A fire's heat and smoke are more dangerous than the flames, as inhaling the super-hot air can scorch and injure your lungs. A fire also produces poisonous gases that make you confused and drowsy. So instead of being awakened by a fire, you may fall into a deeper sleep.



Fire Prevention

Things to do ...



PLAN TWO ESCAPE ROUTES FROM EVERY ROOM IN THE HOUSE.



REMIND YOUR TEACHERS TO DO A FIRE DRILL AT SCHOOL.



REMIND YOUR PARENTS TO HAVE ELECTRICAL WIRES CHECKED.

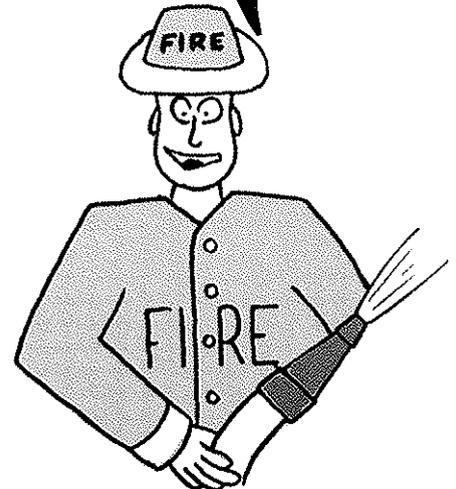


ASK YOUR TEACHER TO HAVE A FIREMAN VISIT YOUR CLASS AND TALK TO YOU ABOUT FIRES.

Don't fear!
Fireman Fred is here!
Call me to your attention
and I'm here for your
protection.



REMIND YOUR PARENTS TO CHECK HEATING SOURCES, SUCH AS STOVES, IRONS, AND WATER HEATERS, ON A REGULAR BASIS. IT IS A GOOD IDEA TO CHECK EVERY TIME YOU LEAVE THE HOUSE.





Dealing with Fire



Matches and lighters are tools, NOT toys. If you see someone playing with fire, tell an adult right away.



If a fire starts in your home, yell "**FIRE!**" and go outside of the house to get help. **DON'T** ever try to hide in another room of the house from a fire.



If your clothes catch on fire ...

STOP what you are doing.
DROP to the ground, cover your face.
ROLL over and over until the fire is out.



If one of your family members or classmates is on fire ...

WRAP them in a blanket.
ROLL them over on the ground.





1. WHAT IS A FIRE? _____

2. WHAT ARE TWO (2) THINGS PRODUCED BY A FIRE?

1) _____

2) _____

3. WHAT ARE THE MOST DANGEROUS PARTS OF A FIRE
AND WHY ARE THEY SO?

4. DO YOU ALWAYS WAKE UP WHEN THERE IS A FIRE IN
YOUR HOME?

5. WHAT ARE THREE (3) IMPORTANT FIRE SAFETY & PREVENTION THINGS YOU CAN DO TO MAKE YOUR HOME SAFER OR EVEN HELP TO PREVENT A FIRE FROM OCCURRING?

1) _____

2) _____

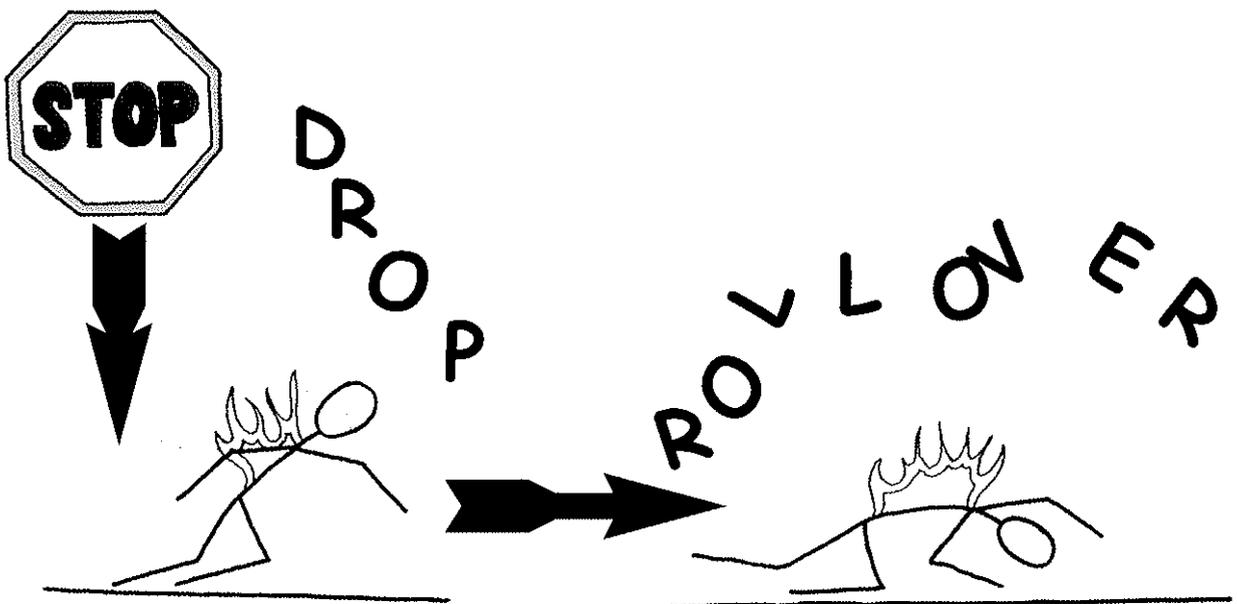
3) _____

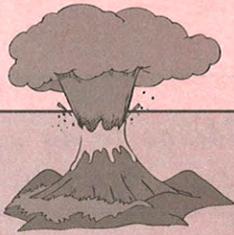
6. IF YOUR CLOTHES CATCH ON FIRE, WHAT ARE THE THREE (3) THINGS YOU CAN DO TO HELP YOURSELF?

1) _____

2) _____

3) _____





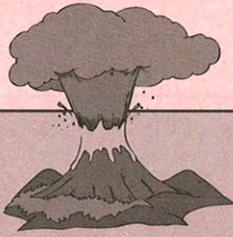
VOLCANOES

WHAT IS A VOLCANO?

A volcano is a mountain or hill with an opening or vent from which a liquid called lava or other solid materials, such as rocks and ashes, are ejected from the inside of the earth.

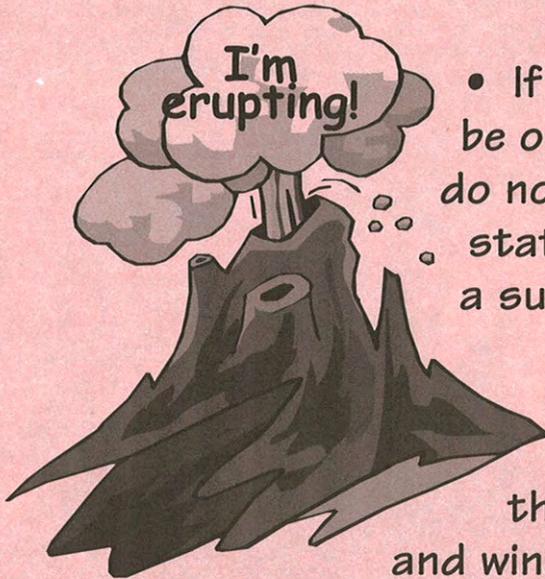
Volcanoes sleep for many years, but when one of them awakens, there are big explosions of gases, rocks, and lava into the atmosphere. This type of explosion is called a volcanic eruption.

Volcanoes are found all over the Caribbean region. Although your area may have no active volcanoes, you can still be affected by the volcanic ash and dust from volcanoes in other parts of the region. Ash and dust move with the wind and can be blown onto your country from many miles away.



Volcanoes

Things to do ...
things NOT to
do ...



- If you happen to be on an island with an active volcano, do not visit the volcano when it is in a state of activity. You could be killed by a sudden explosion!

- If volcanic ash is falling from the sky, stay inside the house and close all doors and windows.

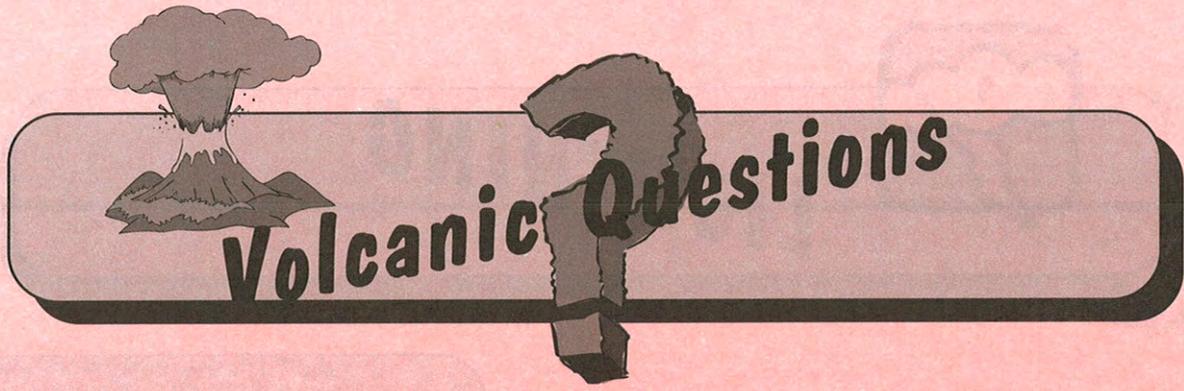
- Look out for flying rocks.
- The most recent volcanic eruption in the Caribbean has been on the island of Montserrat, where a volcano located in the Soufrière Hills awoke on July 18, 1995. People had to leave their homes and go to live on other islands where it was safe.

Did You Know?

THERE ARE MORE THAN 600 ACTIVE VOLCANOES IN THE WORLD. ABOUT 80 OF THEM ARE UNDER THE SEA.

THE VOLCANO KRAKATOA IN THE EAST INDIES EXPLODED IN 1883. THE SOUND WAS HEARD 5000 KM AWAY IN AUSTRALIA.





Volcanic Questions

1. WHAT IS A VOLCANO? _____

2. WHAT ARE SOME OF THE MATERIALS EJECTED FROM A VOLCANO? _____

3. WHAT IS A VOLCANIC ERUPTION? _____

4. ARE VOLCANOES FOUND IN THE CARIBBEAN? _____

5. WHAT CARIBBEAN ISLAND SUFFERED A RECENT VOLCANIC EXPLOSION? _____

6. WRITE TWO (2) THINGS YOU SHOULD NOT DO WHEN A VOLCANO IS ERUPTING.

1) _____

2) _____



LIGHTNING

WHAT IS LIGHTNING?

Lightning is the flashing of light in the sky and clouds, sometimes towards the ground. It usually occurs when the sky is clouded with thunderstorm clouds which produce thunder and rain too. It is a form of electricity, the same kind of electricity that you get when you rub things together.

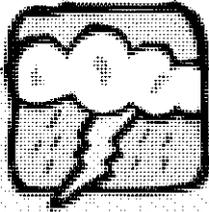
It can be very dangerous – its shock can kill. Lightning likes to travel along pieces of metal and wire, so unplug all the electrical things in your house, like your television or computer, before they get damaged.



Did You know?

A LIGHTNING FLASH HEATS THE AIR AROUND IT TO FIVE TIMES THE TEMPERATURE OF THE SUN.

COUNT THE SECONDS BETWEEN A LIGHTNING FLASH AND THE SOUND OF ITS THUNDER. THEN DIVIDE THAT NUMBER BY THREE TO FIND OUT HOW MANY KILOMETRES AWAY THE LIGHTNING IS.



Lightning

*Things to do ...
things NOT to
do ...*

If
you are in your house, unplug
all electrical devices.

Avoid
fences and railings.

If outside, quickly seek
shelter in a building
or car.

If
you are in the
bushes, go to an area
away from big and tall
trees.

Stay inside. Avoid
windows and doors.

Avoid tall trees and
light poles.



Shocking Questions

WHEN LIGHTNING STRIKES:

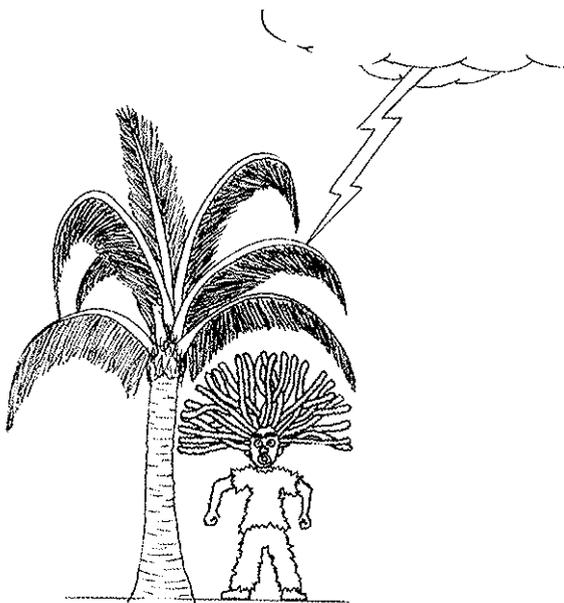
1. WHAT IS LIGHTNING? _____

2. WHAT ARE THREE (3) THINGS YOU CAN DO WHEN YOU SEE LIGHTNING?

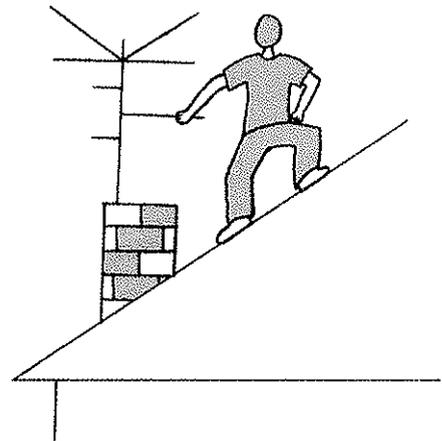
1) _____

2) _____

3) _____



WHAT NOT TO DO WHEN LIGHTNING IS AROUND

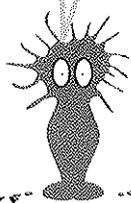




Lightning Quiz



Here are some lightning words you know.
But the letters are all jumbled up.
See how long it takes you to unjumble the
letters and write out the word properly . . .
with the correct spelling!



nginglith

trednuh

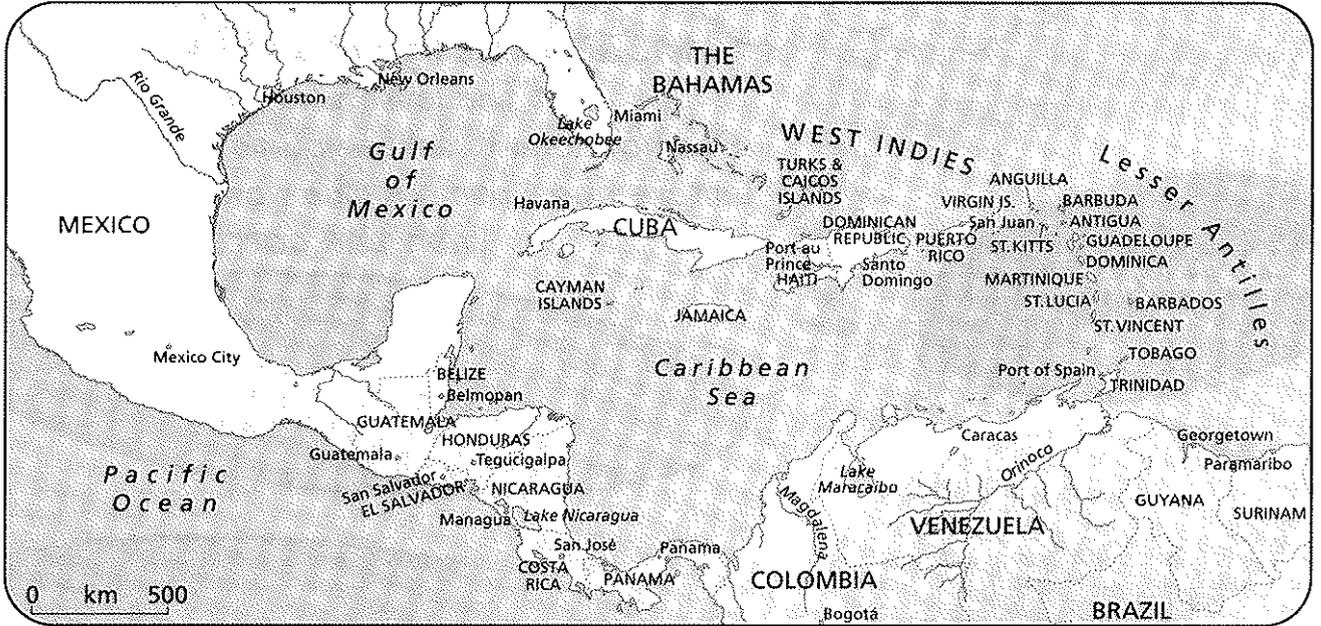
dlosuc

cetelictiry

hosck

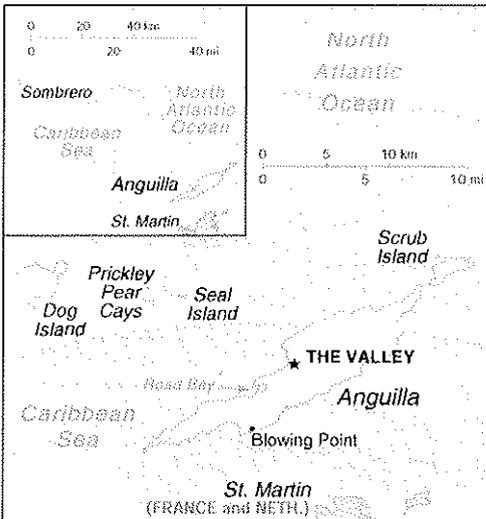


Nations of the Caribbean



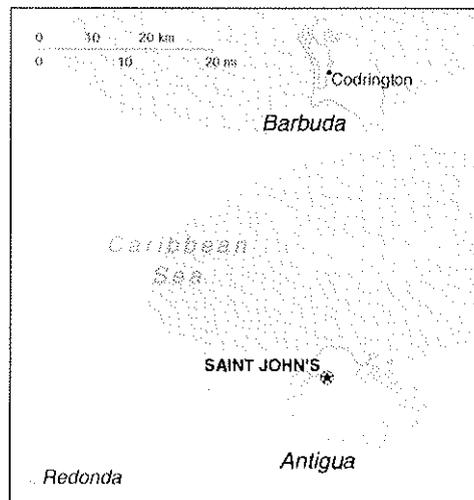
ANGUILLA

Capital: The Valley
 Population: 13,600
 Language: English (official)
 Area: 91 sq. km.
 Natural Hazards: Hurricane



ANTIGUA AND BARBUDA

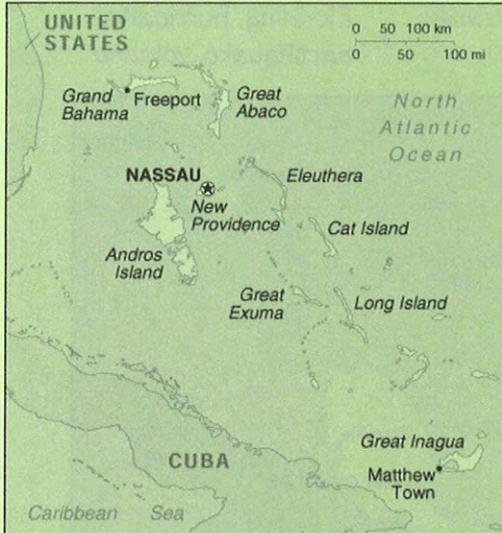
Capital: St. John's, Antigua
 Population: 82,800
 Language: English (official)
 Area: Antigua: 280 sq. km.
 Barbuda: 176 sq. km.
 Natural Hazards: Flooding, hurricane, earthquake





BAHAMAS

Capital: Nassau
 Population: 321,000
 Language: English
 Area: 13,940 sq. km.
 Natural Hazards: Hurricane



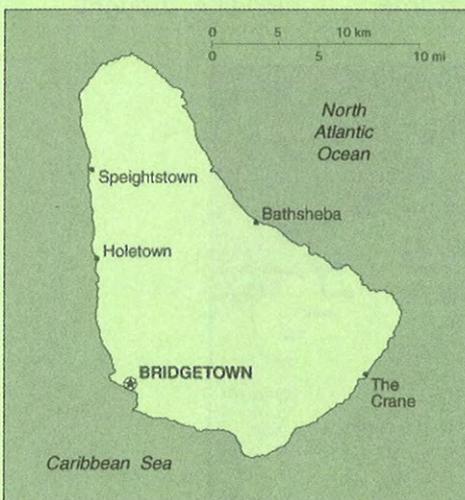
BELIZE

Capital: Belmopan
 Population: 291,800
 Language: English
 Area: 22,960 sq. km.
 Natural Hazards: Hurricane, coastal flooding



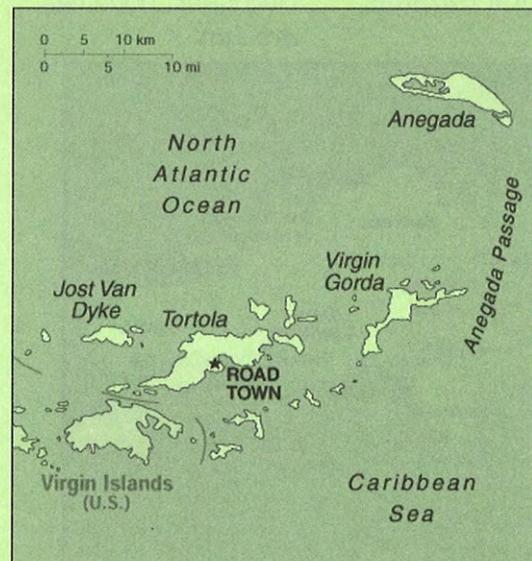
BARBADOS

Capital: Bridgetown
 Population: 272,000
 Language: English
 Area: 430 sq. km.
 Natural Hazards: Flooding



BRITISH VIRGIN ISLANDS

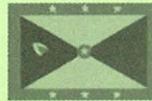
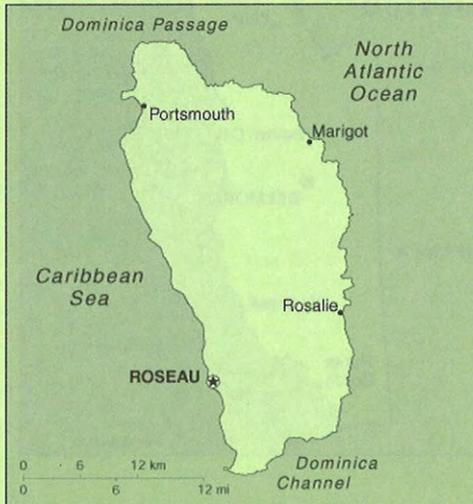
Capital: Road Town
 Population: 22,200
 Language: English (official)
 Area: 150 sq. km.
 Natural Hazards: Flooding, hurricane, earthquake





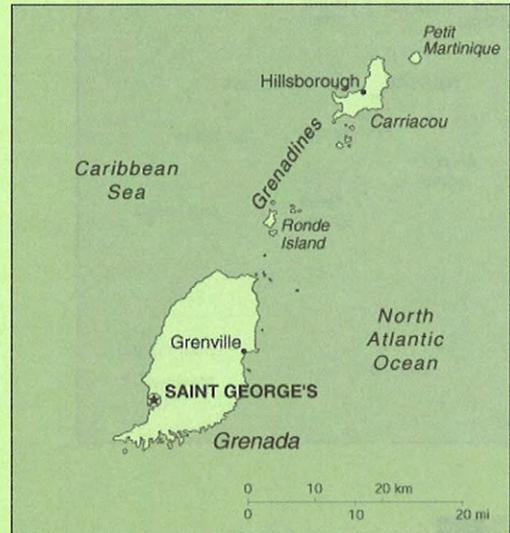
DOMINICA

Capital: Roseau
 Population: 71,500
 Language: English (official), also French Patois
 Area: 750 sq. km.
 Natural Hazards: Flooding, hurricane, earthquake, volcano, landslide



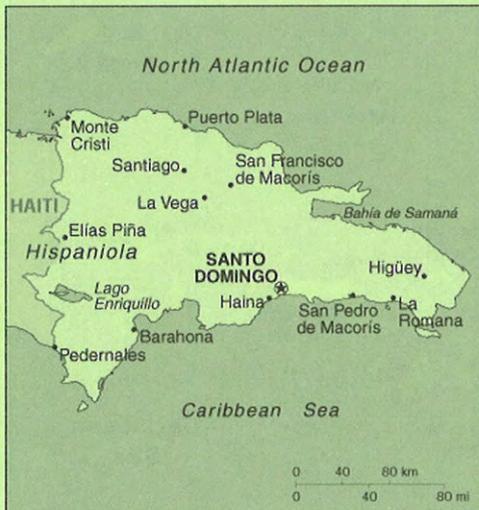
GRENADA

Capital: St. George's
 Population: 103,000
 Language: English (official), a French patois is widely spoken
 Area: 340 sq. km.
 Natural Hazards: Flooding, hurricane, earthquake, volcano



DOMINICAN REPUBLIC

Capital: Santa Domingo
 Population: 9,000,000
 Language: Spanish
 Area: 48,730 sq. km.
 Natural Hazards: Hurricane, flooding, drought



GUYANA

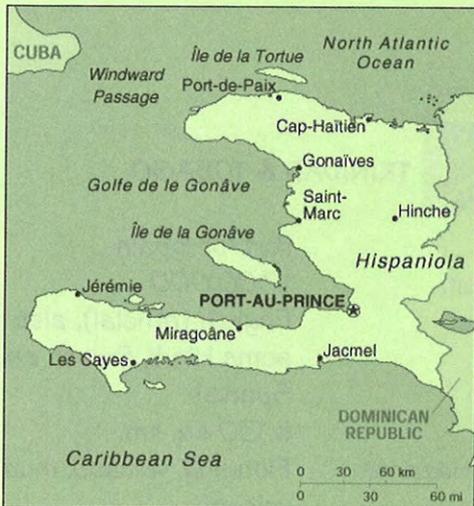
Capital: Georgetown
 Population: 751,000
 Language: English
 Area: 214,970 sq. km.
 Natural hazards: Flooding, drought





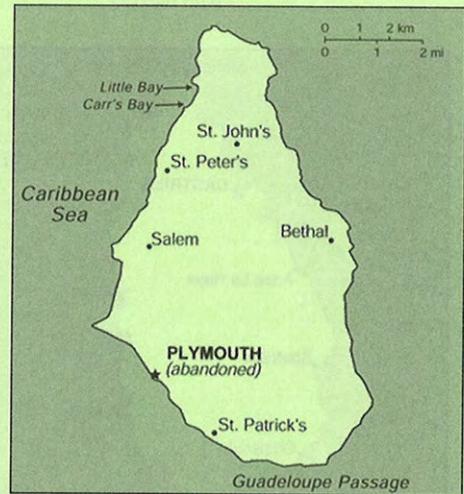
HAITI

Capital: Port-au-Prince
 Population: 8,400,000
 Language: French, Creole
 Area: 27,750 sq. km.
 Natural Hazards: Hurricane, flood, earthquake, drought



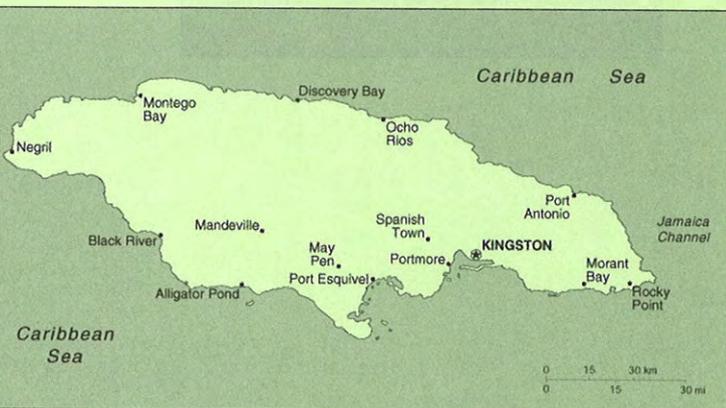
MONTSERRAT

Capital: Plymouth
 Population: 4,483
 Language: English (official)
 Area: 100 sq. km.
 Natural Hazards: Flooding, hurricane, earthquake, volcano



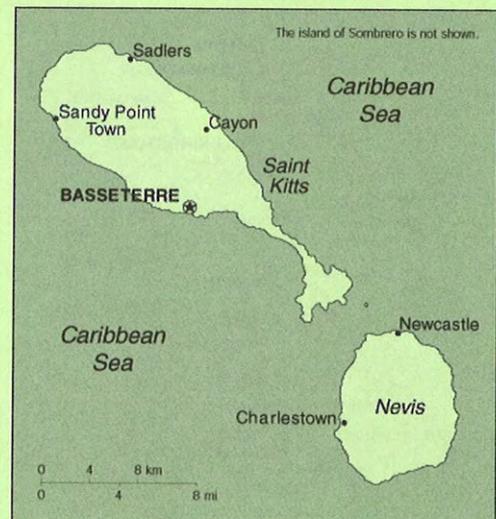
JAMAICA

Capital: Kingston
 Population: 2,700,000
 Language: English, patois
 Area: 10,830 sq. km.
 Natural Hazards: Hurricane, flooding, landslide, earthquake



ST KITTS AND NEVIS

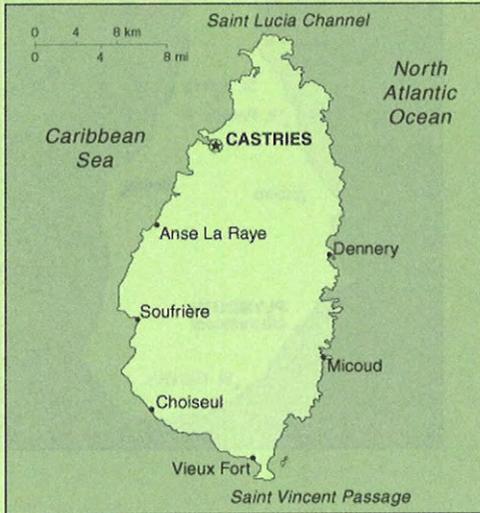
Capital: Basseterre (Saint Kitts)
 Population: 46,000
 Language: English (official)
 Area: St. Kitts = 168 sq. km.
 Nevis total = 269 sq. km.
 Natural Hazards: Hurricane, earthquake





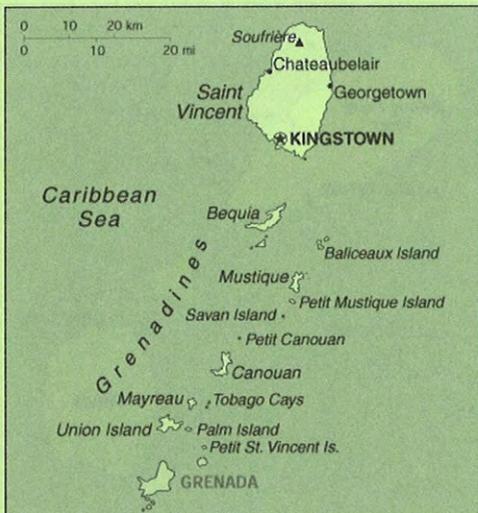
ST LUCIA

Capital: Castries
 Population: 152,000
 Language: English (official), French patois
 Area: 620 sq. km.
 Natural Hazards: Flooding, mudslide, hurricane



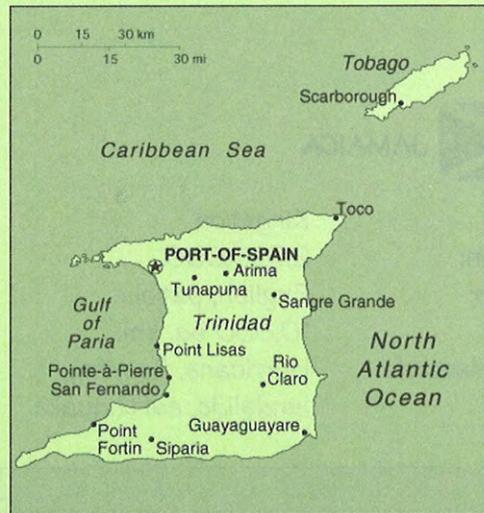
ST VINCENT AND THE GRENADINES

Capital: Kingstown
 Population: 121,000
 Language: English
 Area: 3,489 in total sq. km.
 Natural Hazards: Flooding, hurricane, earthquake, volcano



TRINIDAD & TOBAGO

Capital: Port-of-Spain
 Population: 1,300,000
 Language: English (official), also some Hindi, French and Spanish
 Area: 5,130 sq. km.
 Natural Hazards: Flooding, volcano, mud volcano





Questions



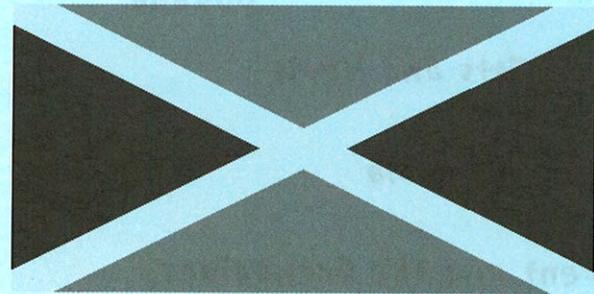
1. WRITE DOWN 12 COUNTRIES IN THE CARIBBEAN.

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

2. WHICH CARIBBEAN COUNTRIES HAVE HURRICANES?

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

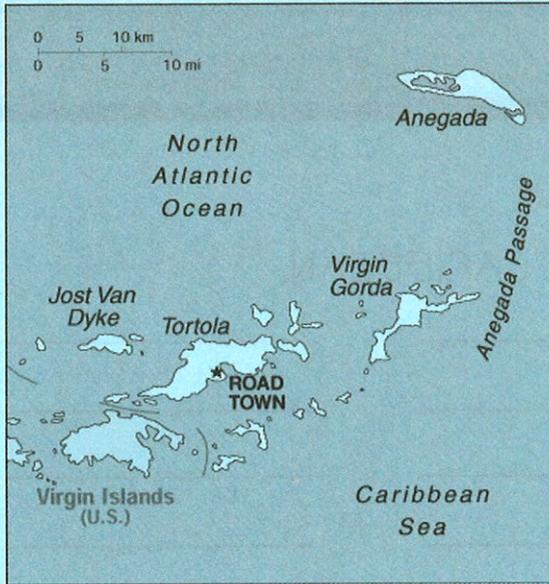
3. WHICH ISLAND HAS THIS FLAG?



4. AND WHAT IS THE NAME OF ITS CAPITAL CITY? _____

5. HOW MANY PEOPLE LIVE THERE? _____

6. THIS IS A GROUP OF ISLANDS IN THE WEST INDIES. CAN YOU WRITE DOWN ITS NAME?



7. CAN YOU WRITE DOWN WHAT ITS NATURAL HAZARDS ARE?

8. IS GUYANA AN ISLAND? _____

9. IS THERE ANOTHER NATION LIKE GUYANA? _____

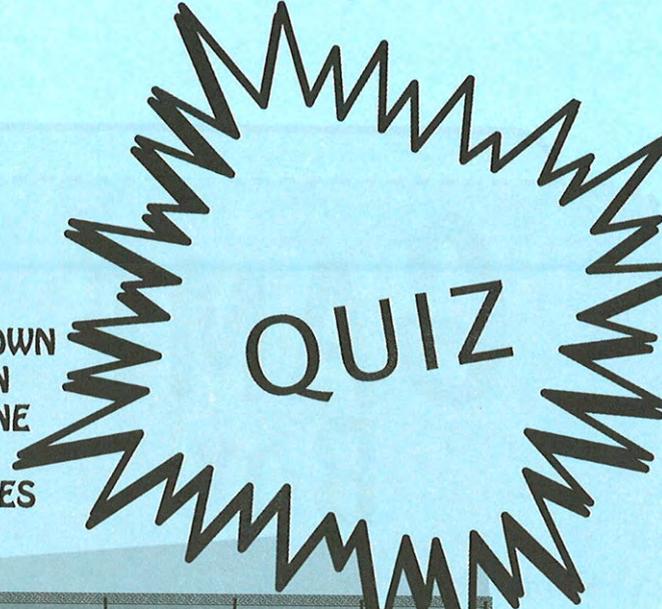
10. PUT A RING AROUND THE NAME OF THE NATION WHICH YOU THINK IS THE SAFEST FROM NATURAL HAZARDS IN THE CARIBBEAN.

- Anguilla
- Jamaica
- Haiti
- Antigua and Barbuda
- Montserrat
- Guyana
- Belize
- Barbados
- St Kitts and Nevis
- British Virgin Islands
- Bahamas
- St Lucia
- Dominica
- St Vincent and the Grenadines
- Dominican Republic
- Grenada
- Trinidad and Tobago

I'm here . . .
somewhere, and you've
got to find me!!

I could be a country . . .
a capital city . . .
or a natural hazard . . .

NEVIS
FLOOD
NASSAU
BRIDGETOWN
KINGSTON
HURRICANE
FIRE
VOLCANOES



GOOD LUCK!

A	N	D	M	O	L	R	S	A	H
B	M	P	A	S	I	V	E	N	U
C	U	Q	A	F	L	O	O	D	R
N	A	S	S	A	U	T	N	B	R
M	E	R	C	B	S	S	A	C	I
N	S	S	D	G	M	T	C	D	C
P	O	F	N	S	N	U	L	E	A
B	R	I	D	G	E	T	O	W	N
R	K	R	O	B	O	V	V	F	E
S	U	E	L	G	P	W	Y	G	P
T	U	N	E	I	Q	X	Z	H	R

GAME BOX

Remember the flags? Turn to pages 44-48 to remind yourself of the names of the countries in the Caribbean and the flags they have.

To play this game, you will need:

- 1 dice
- 4 counters

Up to 4 people can play at one time.

Each throw of the dice tells how far you may go. Follow the instructions on the board.

The aim of the game is to collect as many of the 17 flags from the different countries in the Caribbean as possible. Every time you land on a nation, you collect a flag. The winner is the person who finishes with most flags.

START



 JAMAICA Severe earthquake – miss a turn 41	Advance to Bahamas for holiday 42
 HAITI Severe flooding – 2 days in shelter 40	39
29	 ANGUILLA 30
Repair hurricane damage – miss 2 turns. 28	 Hurricane clears – travel to Anguilla 27
Try to beat the rain – advance to 19 15	16
14	 ST LUCIA landslides – go back to Barbados 17
 GUYANA Good weather 1	2
12	 GRENADA Earth tremor – miss a turn 3

 BAHAMAS Hurricane – return to Dominican Republic 43	44	Need a rest – miss a turn 45	 BELIZE FINISH 46
Flooding in Haiti – advance to Jamaica 38	 DOMINICAN REPUBLIC Drought – miss a turn 37	36	35
Flag missing – go back to St Kitts 31	32	 BRITISH VIRGIN ISLANDS Good rest – go to 36 33	Missing passport – return to Antigua 34
 ANTIGUA & BARBUDA hurricane warning – back to 23 25	24	23	 ST KITTS & NEVIS: lovely weather – go to 24 22
Roads blocked in St Lucia – miss a turn 18	19	 DOMINICA 20	 MONTSERRAT Volcano erupting – miss a turn 21
 BARBADOS No problems – stay extra day miss a turn 11	Overbooked in Barbados – go straight to Dominica 10	9	Cheap flight from Trinidad – advance to Barbados 8
Earth tremors over – advance to 9 4	5	 TRINIDAD Mud volcano – back to Start 6	Relax in Tobago – miss a turn 7



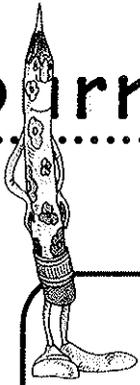
Add these new words to your vocabulary

These words will help you to learn more about natural hazards in the Caribbean.

- Aftershock** Minor shaking following major earthquake activity
- Coordinates** A set of numbers that you use to plot the position of a place, ship, or hurricane on a map
- Disaster** A natural or man-made event which brings great damage, loss or destruction
- Earthquake** Sudden shaking or trembling of the earth
- Emergency** Something very dangerous that happens suddenly and causes injury or damage
- Eye** In a hurricane it's the very center of the storm where it is still and quiet
- Evacuation** Movement of people from a place in an organized way for protection and safety
- Flood** Overflowing of water in an area that is normally dry
- Hazard** Occurrence of an event which causes a negative effect on people and property

Hurricane	A tropical storm with winds of 74 miles per hour or above
Latitude	Imaginary lines drawn horizontally on a map to help make a grid of the world. The lines help us know where things like ships and storms are at any time
Longitude	Imaginary lines drawn vertically on a map. These lines also help us know the position of things like ships and storms
Mitigation	To make less severe or less painful
Preparedness	To be ready beforehand in case of a disaster
Response	Action carried out in a disaster to save lives and reduce suffering and damage to property
Storm	A disturbance of the atmosphere which brings rain, thunder, lightning and wind
Storm Surge	The rise in the water level on coastal areas due to the passage of a hurricane
Tracking Chart	A chart using numbers and lines which you can use to track the position of a hurricane as it moves
Tidal Wave	An unusually high sea wave that sometimes follows an earthquake
Tsunami	Another word for tidal wave - a great sea wave (the "T" in Tsunami is silent)
Volcano	A mountain with an opening at the top from which hot rocks and steam are ejected

Journal Work



Write here what you would do to make your community a safer place and how you could help if your community were hit by a natural hazard.

A large, empty rectangular box with rounded corners, intended for writing the student's response to the prompt.