*** HOMEWORK UPDATE ***

- Homework:
  - It's recommended that you keep a **Homework Folder** at home that can hold all the resources/materials that are sent home.
  - The materials that are sent home can be used as a **"master copy"** and kept in the HW folder that you can make copies of when needed.
    - If you do not have access to a printer and need copies of anything, please do not hesitate to reach out.
  - *Materials that are sent home in my Weekly Updates can also be kept in a HW folder and used as a "master copy."*
- Choice Board:
  - This year we will be utilizing monthly choice boards. This way, students have choice in the types of activities that can be completed over the course of the month. You will notice that some activities are **highlighted in yellow/gray boxes if not printed in color**. Those **must** be done throughout the month, as often as you see fit for your child (and as long as you have access to technology). Beyond those, your child can choose whatever other activities they would like to complete throughout the month. **Three activities should be done each week.**
  - We ask that a **parent or guardian sign off** at the bottom of the choice board to verify that your child completed their work.
  - ***Reading should be done every day.***
  - Attached is the **March Choice Board**.
- February Choice Board includes the following:
  - **Science book** includes concepts and vocabulary words for our unit.
  - **Flash cards** are attached to this for practicing math facts. They need to be cut out and can be put into a baggie.
  - The **snap word list** is also attached. A **reading assessment** on these words will be given on 4/12/24.
  - You will see a choice for **"rainbow write your snap words."** The Rainbow Write is attached to this for your use at home. Please make copies at home so that you can reuse it. If you don't have access to a printer and would like another copy, please reach out to me so that I can print it for you.
    - "**Rainbow writing** refers to repeatedly tracing letters using multiple crayons or color pencils to create a fun rainbow effect while writing. It makes the writing process more fun and engaging for kids, as they repeat writing the words and practice spelling them."

Please see back →

- **Writing paper** is attached. There are *many* writing prompts on Google Classroom.
- For the assignment, "Practice double-digit addition AND subtraction with AND without regrouping," there are a few choices:
  - The math worksheets that are attached in the Weekly Updates can be used.
  - The attached math game(s) can also be used.
  - You and your child can create problems together.
- Google Classroom has many activities and resources such as science experiments, phonics worksheets, writing prompts, and a **digital leveled library**.
  - I will be using **Google Classroom** to post important information and resources for all of our subjects (phonics, reading, writing, math, science, social studies). I will be adding resources throughout the year as we learn new things! The resources I add can be used as optional practice/studying at home. To **access Google Classroom**, sign-in directions are on my teacher webpage and below:
  - Google Login:
    - Student Email: firstname.lastname@k12.wcsdny.org
    - Student Password: glued on the inside of your child's home folder
    - Then click the "waffle" in the upper right corner and click the Google Classroom icon.
    - If you are having trouble logging in, please go to my teacher webpage → there is a link for tech support for parents

- If you have any questions, please do not hesitate to reach out!

Have a great month, Partners!

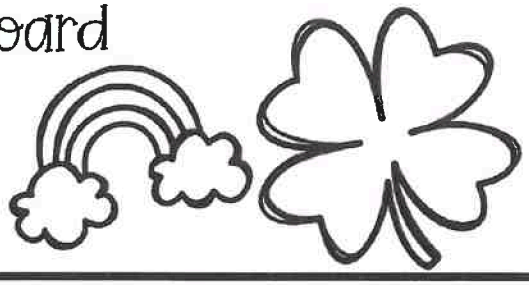
Best,

Miss Alexander

Due: 4/2/24

Homework Choice Board

MARCH



The minimum requirement is **at least three** activities **each week** for the entire month … but the more practice the better! Color the boxes you choose to complete…The gray boxes are a must. **Reading should be done every day.** Please have a parent/guardian sign at the bottom and return this on the due date.

Practice reading your snap words	Complete *at least* 2 i-Ready Math lessons	Rainbow write your snap words	Practice your addition and subtraction facts
Practice double-digit addition AND subtraction ***with AND without*** regrouping	Complete *at least* 2 i-Ready Reading lessons	Write sentences using the snap words	Read *Does Earth Change?* together then review concepts and vocabulary
Write about what you would find at the end of a rainbow	Play a time AND money game	Choose 2 activities to work on from our Google Classroom	Read a book for 35 minutes
Study the subtracting numbers from 7 to 9 flashcards AND complete the worksheets	Complete all attached work from a (at least two) Weekly Update packet	Play the attached math games	Play a game on Tang Math for 10 minutes

Child's name: _____

Parent/guardian signature: _____

Third Quarter Second Grade Snap Words

(Please keep it in a folder and use it for homework choice board assignments.)

The students will need to know the following words below. For full mastery of snap words, students need to be able to spell and read them. Please take time to go over new words and review the first grade ones.

The quarterly assessment will be on Friday, April 12th. Please be sure your child knows all the words.

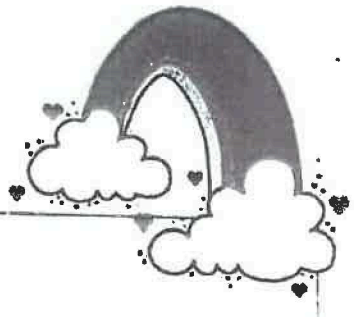
3rd quarter

themselves	maybe	really	favorite	together
several	begin	before	great	either
excited	while	old	usually	again
against	being	ready		

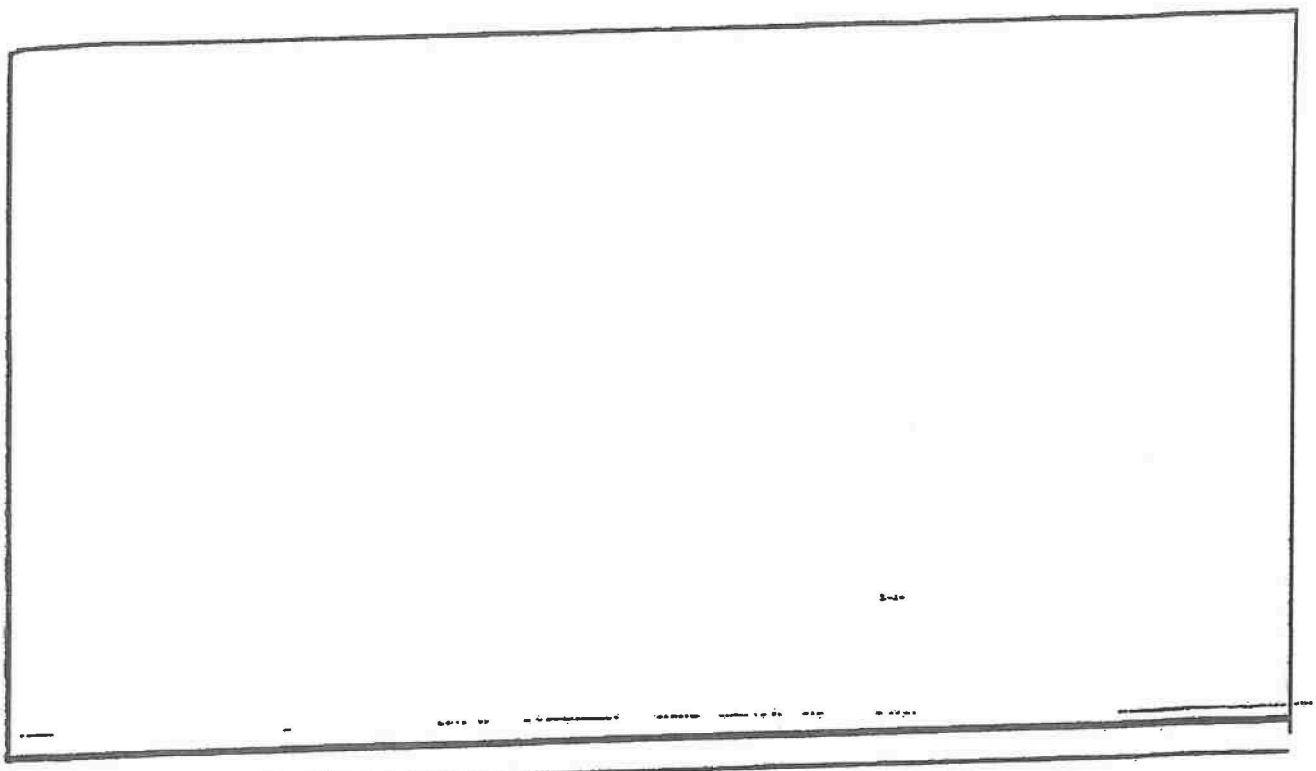
1st Grade Review Words

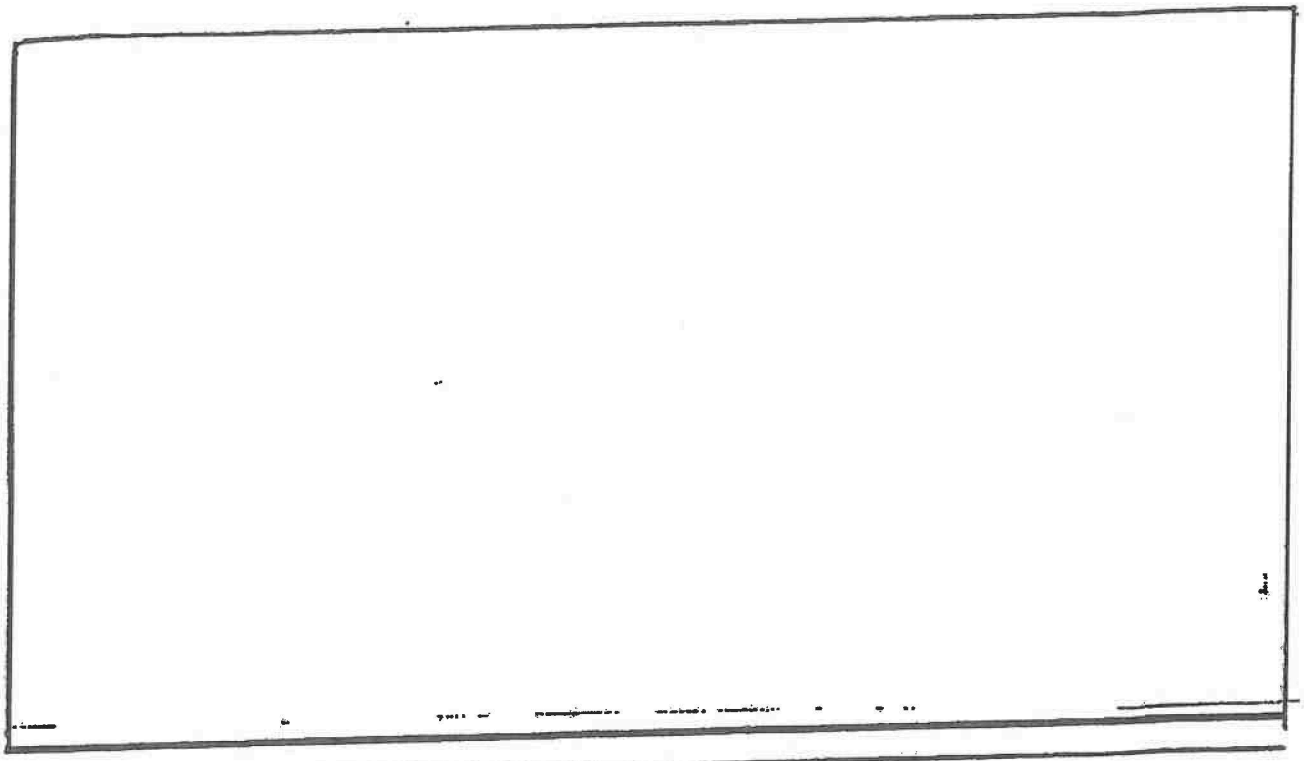
few	because	high
might	over	under
want	were	family

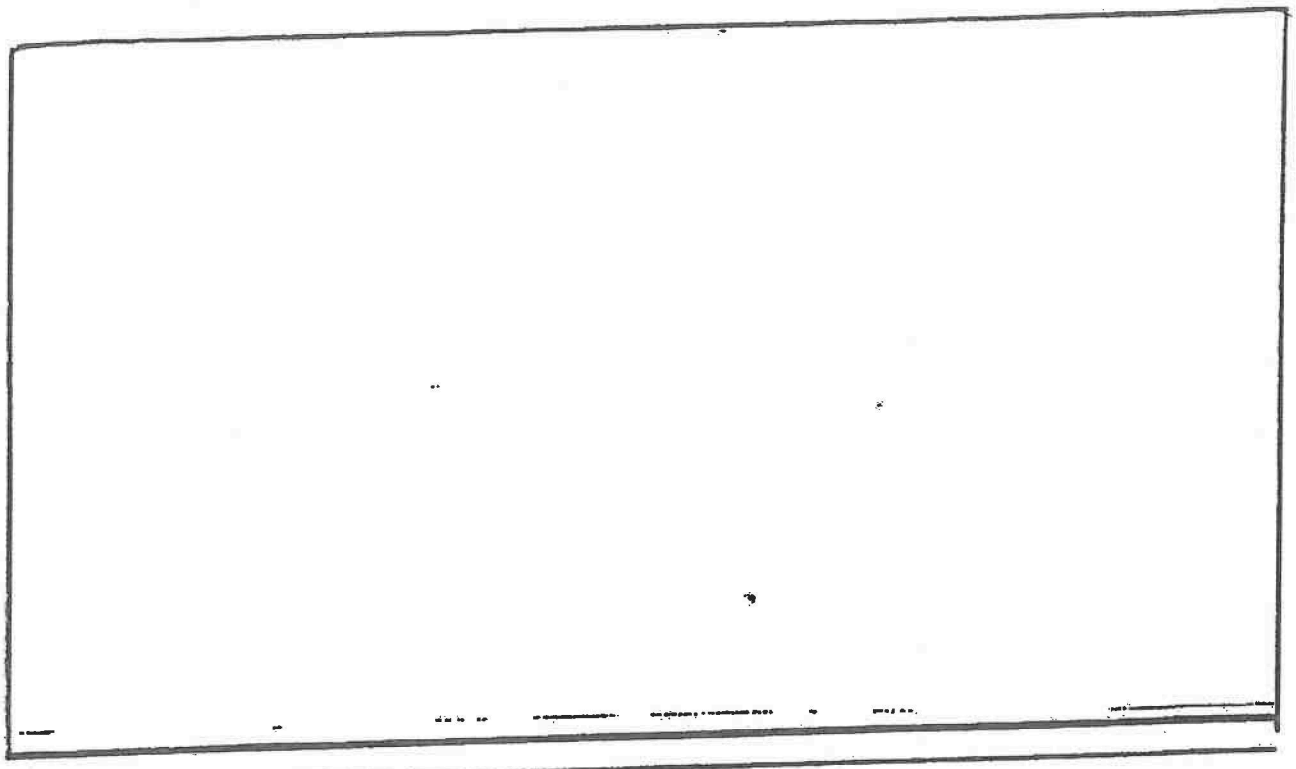
Name: _____ Rainbow Writing



1.	6.
2.	7.
3.	8.
4.	9.
5.	10.







Mentally Adding & Subtracting 10 & 100 Dice Game

Aligned with Common Core 2.NBT.B.8

To play, simply roll the dice 3 times. Record your 3-digit number on the recording sheet. Then add and subtract 10 and 100. Enjoy!

Name: _____

Mentally Adding and Subtracting 10 and 100

Directions:

Roll the dice 3 times.

Record your 3-digitnumber.

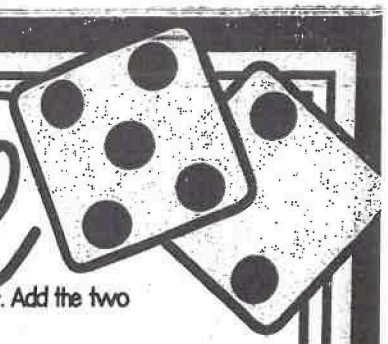
Subtract 10 and 100 on the left.

Add 10 and 100 on the right.

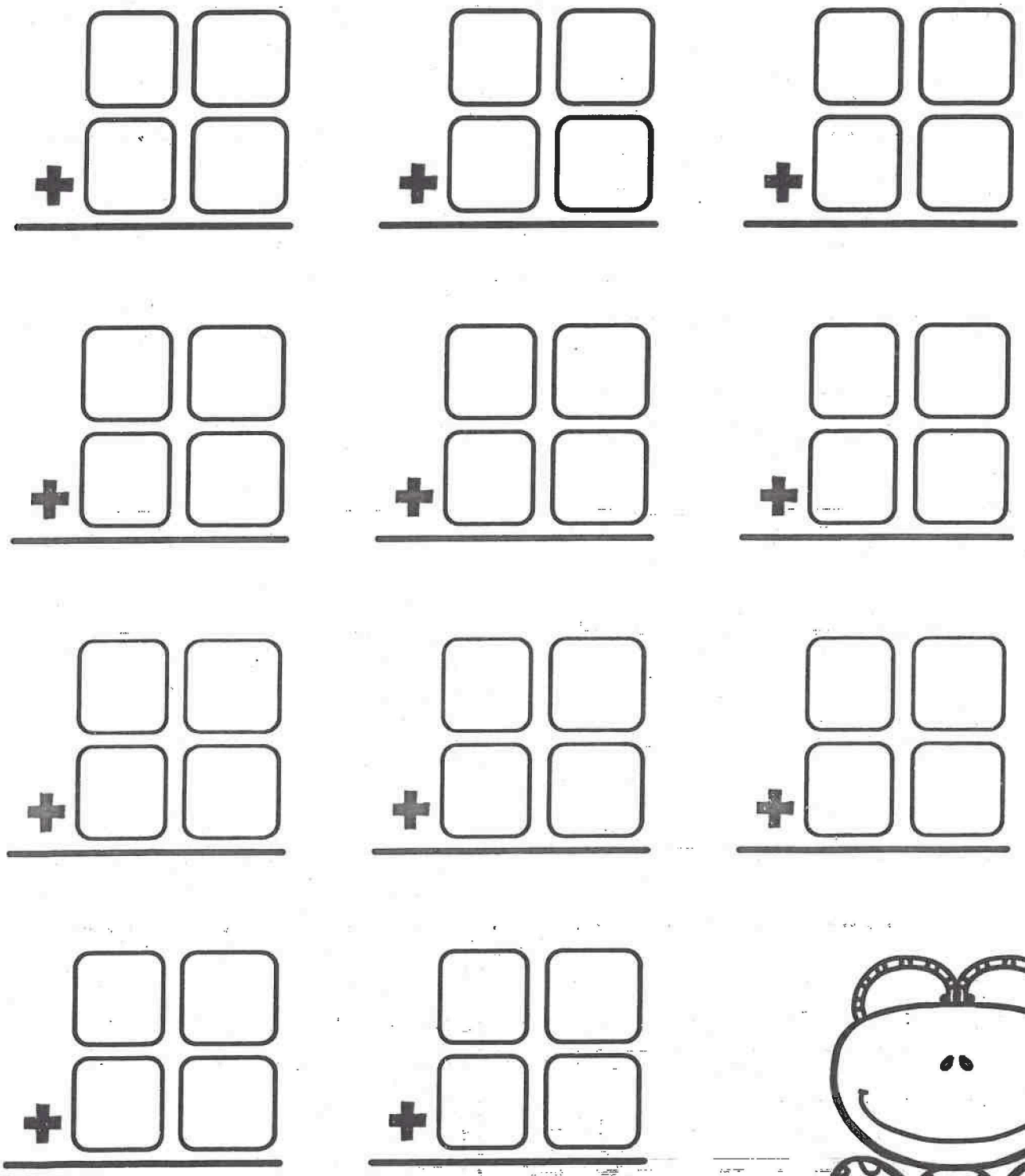
Subtract 100	Subtract 10	**Number**	Add 10	Add 100

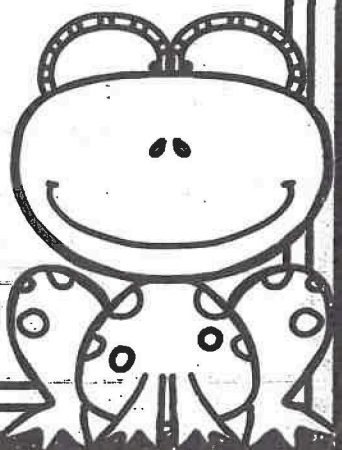
Name: _____

Double-Digit Roll



Directions: Roll 2 dice to create a 2-digit number. Then, roll again to create a second 2-digit number. Add the two numbers you created. **(2.NBT.A.5)**

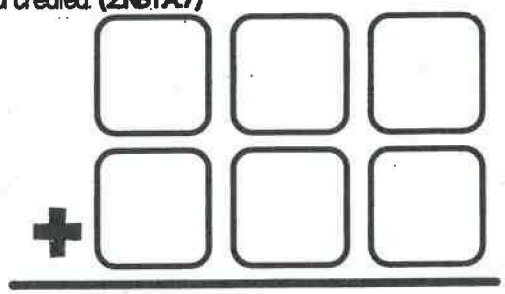


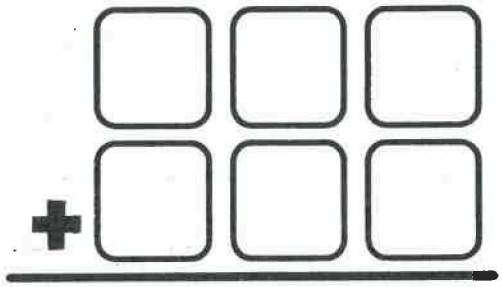


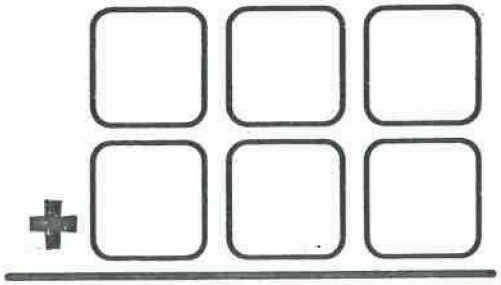
Name: _____

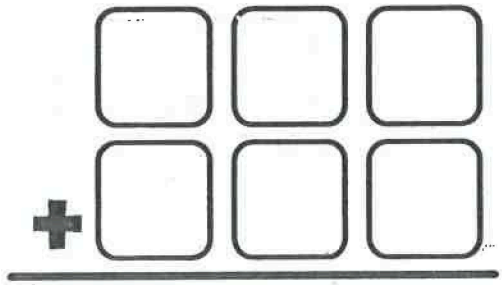
Triple-Digit Roll

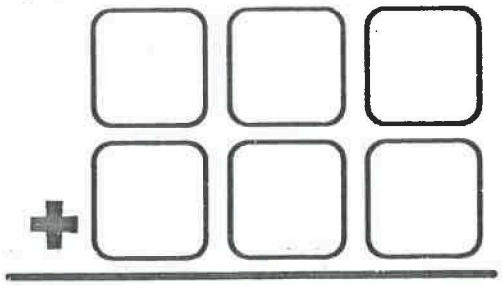
Directions: Roll 3 dice to create a 3-digit number. Roll again to create a second 3-digit number. Add the two numbers you created. **(2.NBT.A.7)**

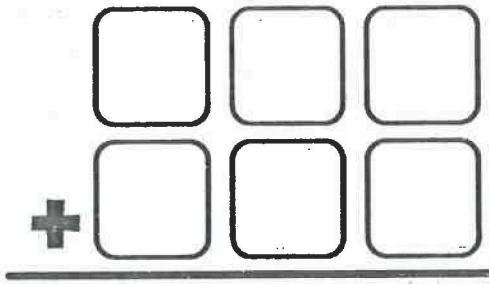


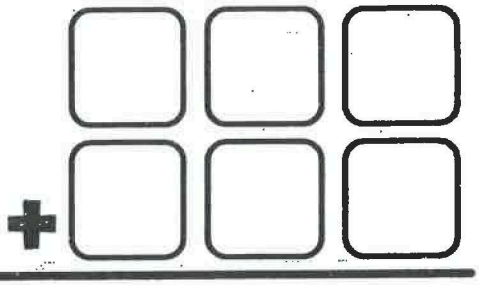


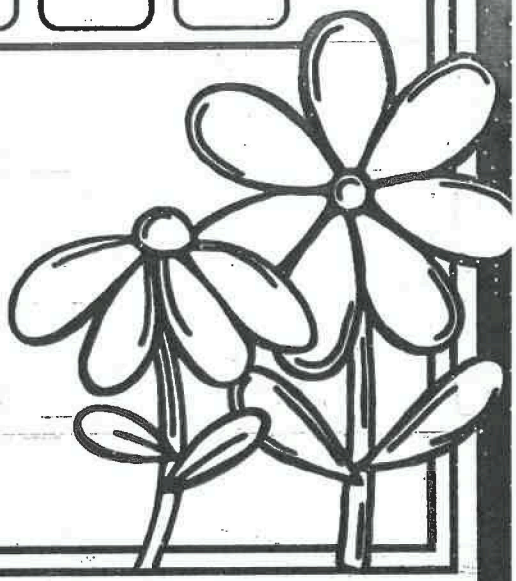












Subtracting Seven

8 -7	9 -7	10 -7
11 -7	12 -7	13 -7
14 -7	15 -7	16 -7

Answers for Subtracting Seven

3	2	1
6	5	4
9	8	7

Subtracting Eight

9 -8	10 -8	11 -8
12 -8	13 -8	14 -8
15 -8	16 -8	17 -8

Answers for Subtracting Eight

3	2	1
6	5	4
9	8	7

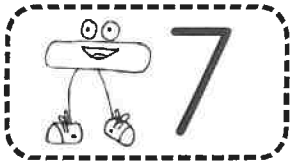
Subtracting Nine

10 -9	11 -9	12 -9
13 -9	14 -9	15 -9
16 -9	17 -9	18 -9

Answers for Subtracting Nine

3	2	1
6	5	4
9	8	7

Name: _____



7 - 3 =

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9 - 7 =

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8 - 7 =

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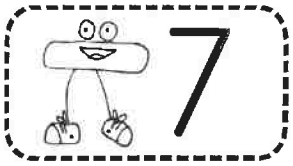

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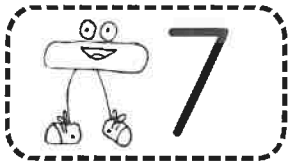

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7 - 0 =

7 - 3 =

8 - 7 =

5 - 2 =

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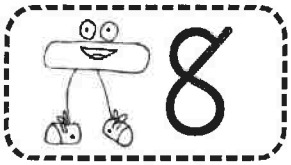

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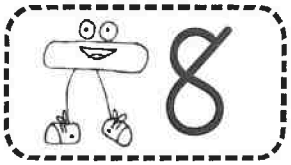
6 - 3 =

Name: _____



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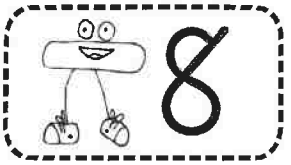

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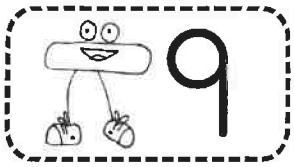

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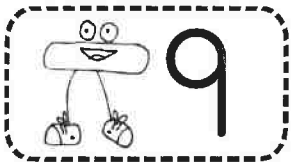

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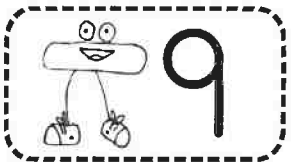

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7 - 5 =
9 - 5 =
9 - 7 =
6 - 4 =

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The Science 21
Earth Science Source Guide

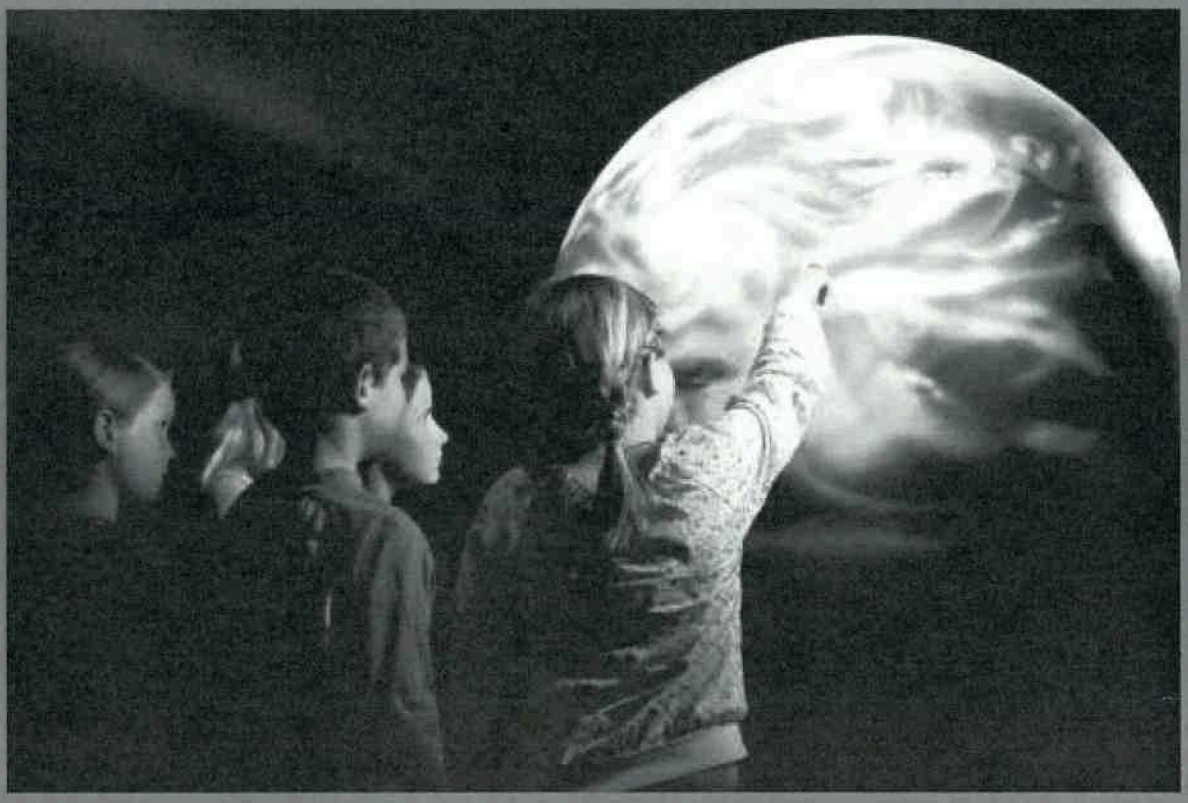
Does Earth Change?

Grade 2 Unit 2

Student Scientist:

_____

Quick and Slow Changes to Earth's Surface



Hey, scientists!

Did you know that the part of Earth we can see, Earth's surface, is always changing?

Our planet changes slowly and quickly. Some places on Earth may look very different years from now because of changes happening to Earth's surface today. Other changes to Earth may happen fast enough that we will be able to see them now or in a few years!

Let's explore, or look at, some *Earth events* that make quick and slow changes to our planet.

Quick Earth Changes

Quick Earth changes can happen in a few minutes, a few hours or a few days. They are called quick changes because humans can see them in their lifetime and easily see the changes they make to Earth.

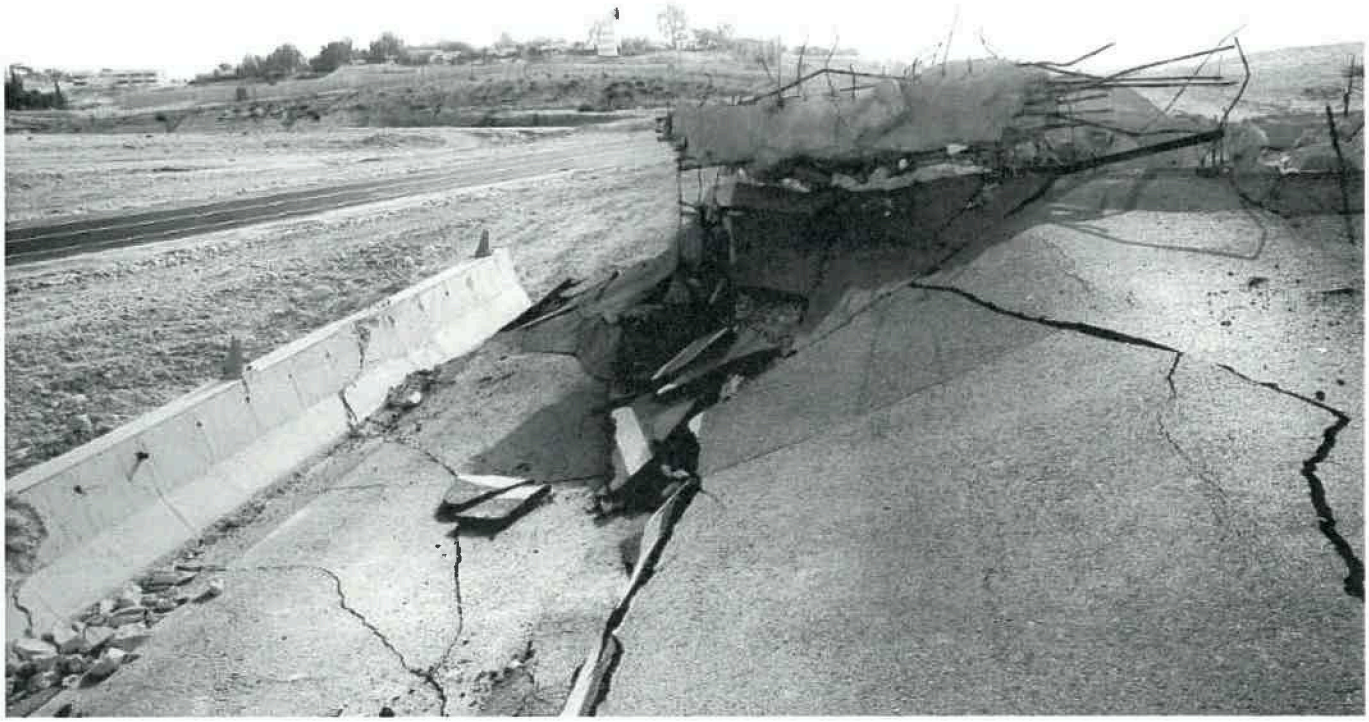
Have you ever been caught outside in a thunderstorm and watched the rainwater push soil and leaves down a hill or on the street?

If you have, you have just witnessed an Earth changing event!

LANDSLIDES: land that is sliding

Landslides (also Mudslides or Rockslides) happen when large amounts of earth materials, including rocks and soil, move suddenly down a slope or steep hill in a few minutes. As you can see in the picture, this landslide changed the shape of the beach and the hill above it. Landslides can happen during a strong storm, or when the land moves underground and **vibrates** the top of the soil so hard that it slides downward.

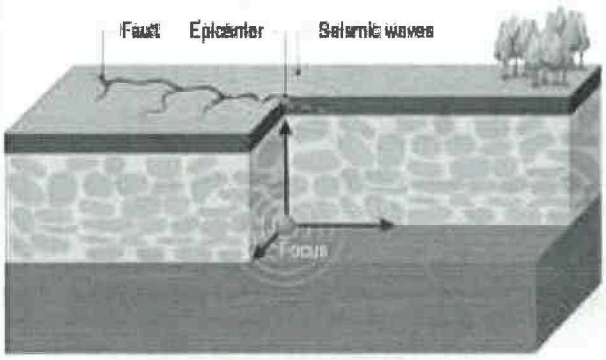
EARTHQUAKE: land that shakes hard



An **earthquake** happens when two solid blocks of Earth break and move underground. This movement can cause cracks in the underground rock. These cracks are called **faults**.

The picture shows us the cracks in a road that happened because of an earthquake. Cracks also happen under water, in forests, on mountains, and in fields. Earthquakes happen more in some parts of the world than others. Earthquakes can happen suddenly and can shift large areas of land in seconds!

We measure the strength of an earthquake using the word **magnitude.** We measure the magnitude of an earthquake on the Richter Scale from 0-9.

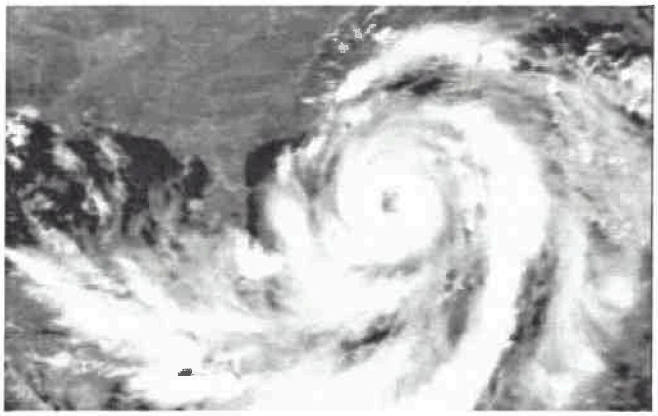


WEATHER: day-to-day temperature and seasons

Normal weather, such as *rainstorms* and *windstorms*, can cause quick changes to Earth's surface in a few hours by moving soil, rocks, branches and other Earth materials from one place to another.

Severe weather, such as tornadoes and hurricanes often form quickly and move quickly. Have you ever seen a tornado tearing up soil and plants or a hurricane changing the shape of a beach?

Tornadoes are forceful rotating windstorms. Most tornadoes last less than ten minutes (some can last hours). The windstorm is so strong it can move materials very far away from where they started.



Hurricanes (also called tropical cyclones) are the most powerful storms on Earth, which can last from several days to more than a week. Strong winds and heavy rain can damage buildings, knock down trees, cause flooding, and change shorelines.

Next time there is a storm, look out your window when the storm is over and see if you notice any Earth changes from the wind and rain.

VOLCANOES: a mountain with an opening to molten rock

Erupting **volcanoes** can produce hot gases, lava, and ash. Volcanic materials flow or explode very quickly and spread over the land. When lava cools, it quickly forms new layers of rock on Earth's surface. Some volcanoes erupt so quickly that they can change the land around them in under a minute. Other volcanoes erupt over days or years, taking a bit longer to change the land.

Do you notice that all these quick events that change Earth's surface are things you can see and even feel happening if you are close enough to them?
You can take photographs or video of quick Earth changes. You can observe quick weather changes during or after they have happened.

Are there some changes that happen to Earth so slowly that they are hard to see or feel?

Slow Earth Changes

Our planet looks much different than it did long ago, and even though you can't feel, hear, or see it changing, Earth is moving and changing right now!

Slow Earth changes are due to events that take place on Earth's surface over a long period of time. You will not see them in your lifetime. If a photo were taken of this mountain millions of years from now, it would NOT look the same.

Weather and time would make changes to rock, soil, and plants in a way that we might not even be able to recognize. **What do you think this photo will look like in 500 years?**

Let's explore what causes slow changes to Earth's surface over a long period of time and why they are so hard to observe.

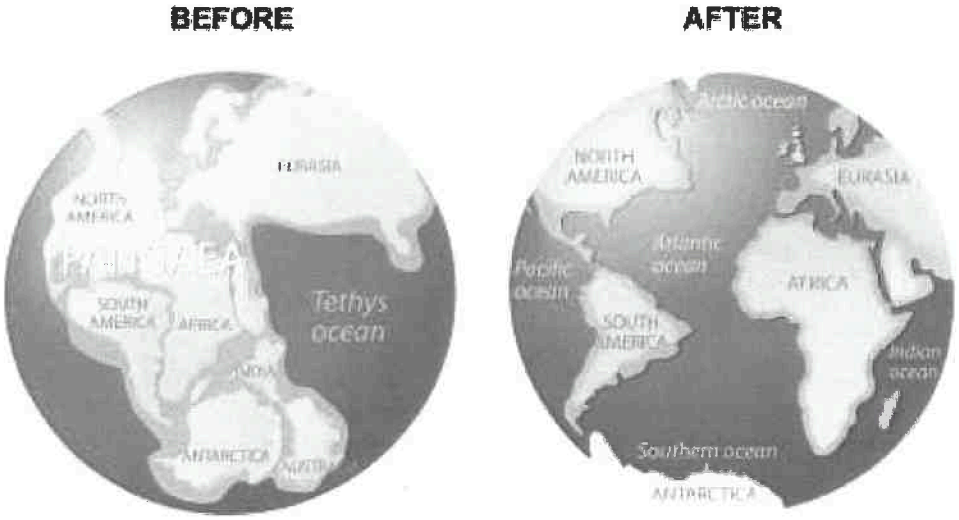
EROSION: when natural materials are moved from place to place

We showed you an example of quick **erosion** in the landslide picture. Soil, trees, and rocks were being moved quickly from the top of the mountain to the beach below. You can see quick examples of erosion after a rainstorm when the water has moved dirt and rocks from a high area and washed it downhill.

Erosion also happens very slowly and can be hard to see. The photo above shows a large rock getting smaller by wind and rain removing tiny pieces of rock and moving these pieces to another place over many years. First, the rocks break from **weathering**. Weathering is the gradual or slow breaking down of rocks, soil and other natural materials into smaller and smaller pieces. Heat, water, wind, ice, and other natural events cause weathering.

Erosion takes place quickly or slowly depending on weather patterns, how much plant life is growing in an area, and how soft or hard the soil and rocks are.

CONTINENTAL DRIFT: moving Earth land surfaces

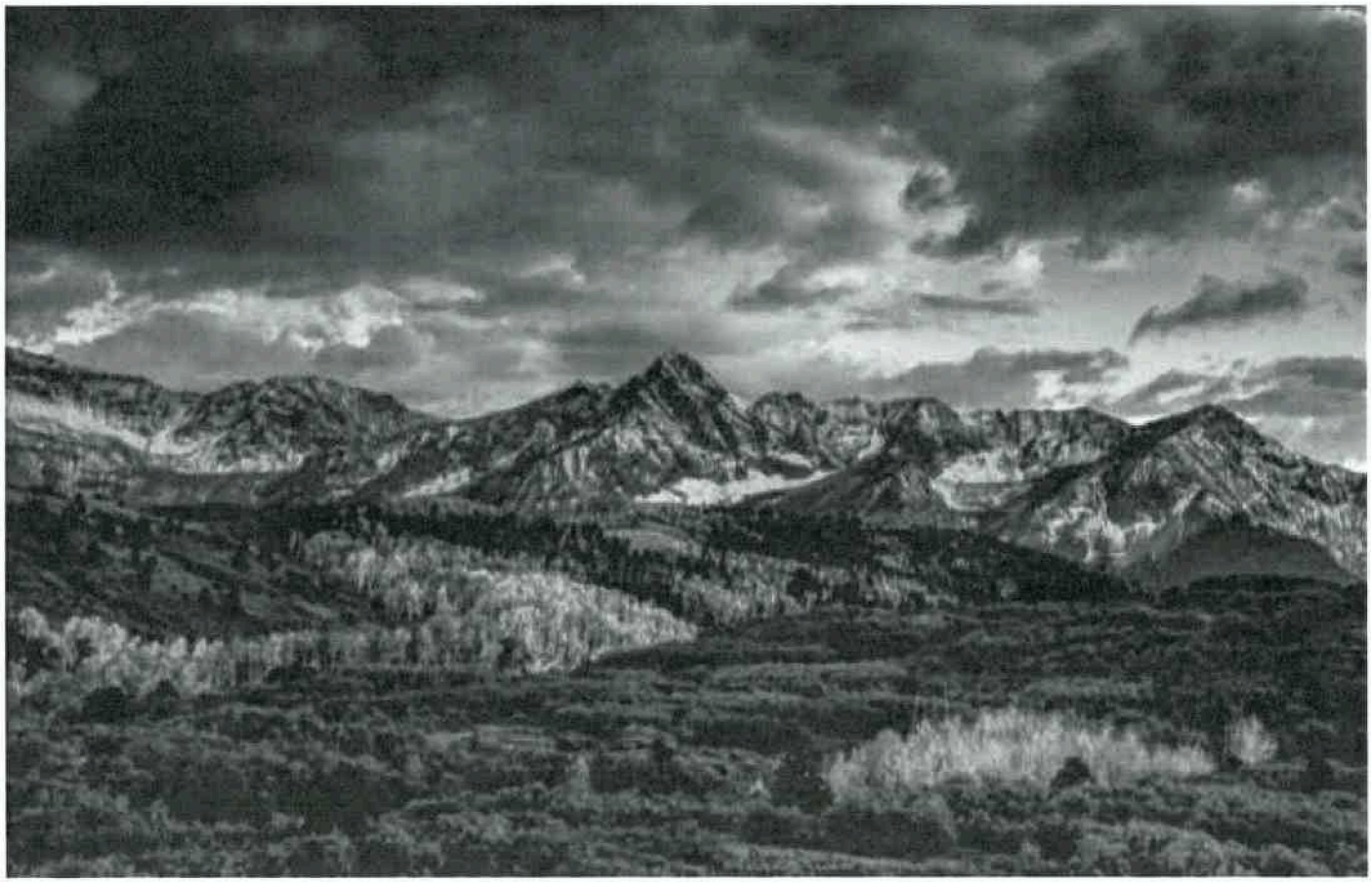


Earth's surface is broken into moving parts called **plates**. These plates move very slowly but can make big changes to the Earth's surface. Some plates move away from each other. Other plates **collide** or meet and push toward one another. Some plates move side by side. Most plates move only a few centimeters in a year.

Moving plates form mountains, valleys, and canyons. **Continents** are the part of Earth that we see as large pieces of land that are separated by oceans. The movement of plates makes continents move toward or away from each other a very tiny bit over many years. Some continents can also split apart.

Millions of years ago the plates were all joined together in a huge supercontinent. Slowly the plates broke apart and drifted away from one another to form the continents we see today. Earth's plates will continue to move slowly beyond our lifetime.

MOUNTAIN FORMATION: landform higher than surrounding land



Mountains form and disappear over many lifetimes due to plate movement, weathering, erosion, and volcanic activity. When the Earth's plates **collide** or push together, the ground folds or pushes up, and mountains are formed. Since the plates move very slowly, this takes a very long time.

The eruption of volcanoes can also create mountains by building up layers of rock on Earth's surface. Mountains made from plate movement and volcanoes* are created very slowly.

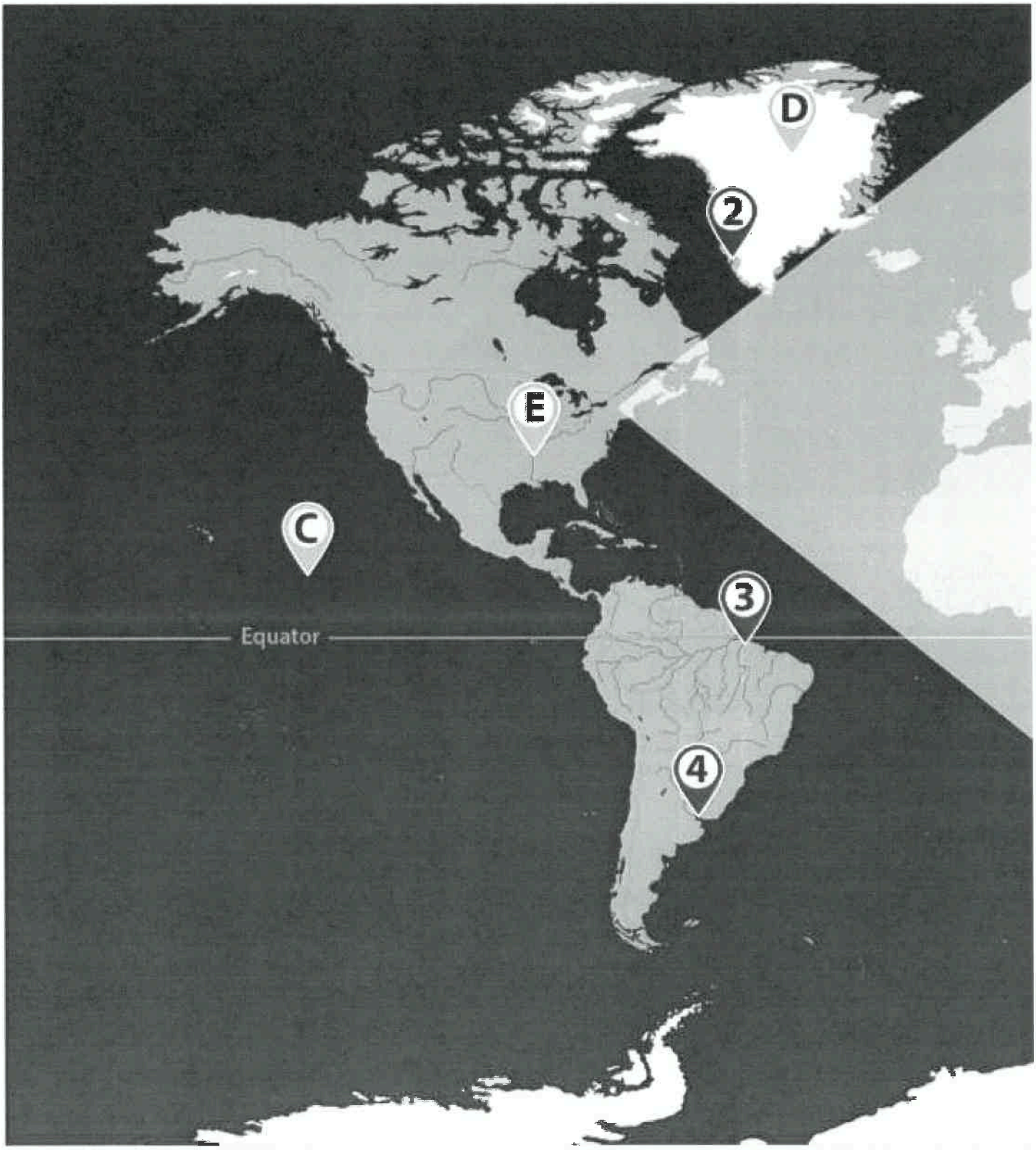
**Some volcanic mountains can form very quickly.*

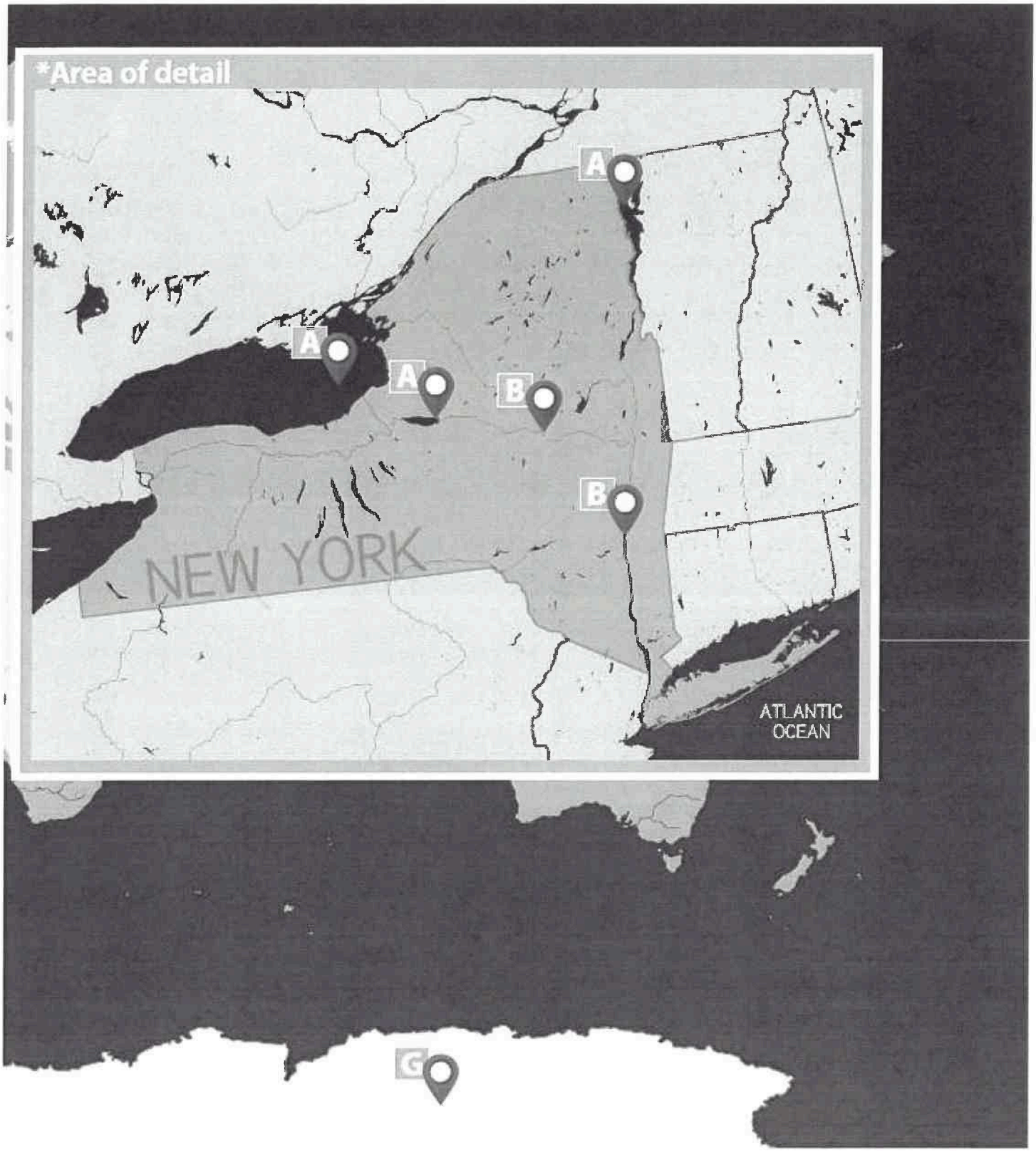
What Have I Learned?

Can you describe some Earth events that affect how the world around us looks?

Is erosion a quick change or a slow change? How do you know?

World Map Bodies of Water




*Area of detail
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NEW YORK
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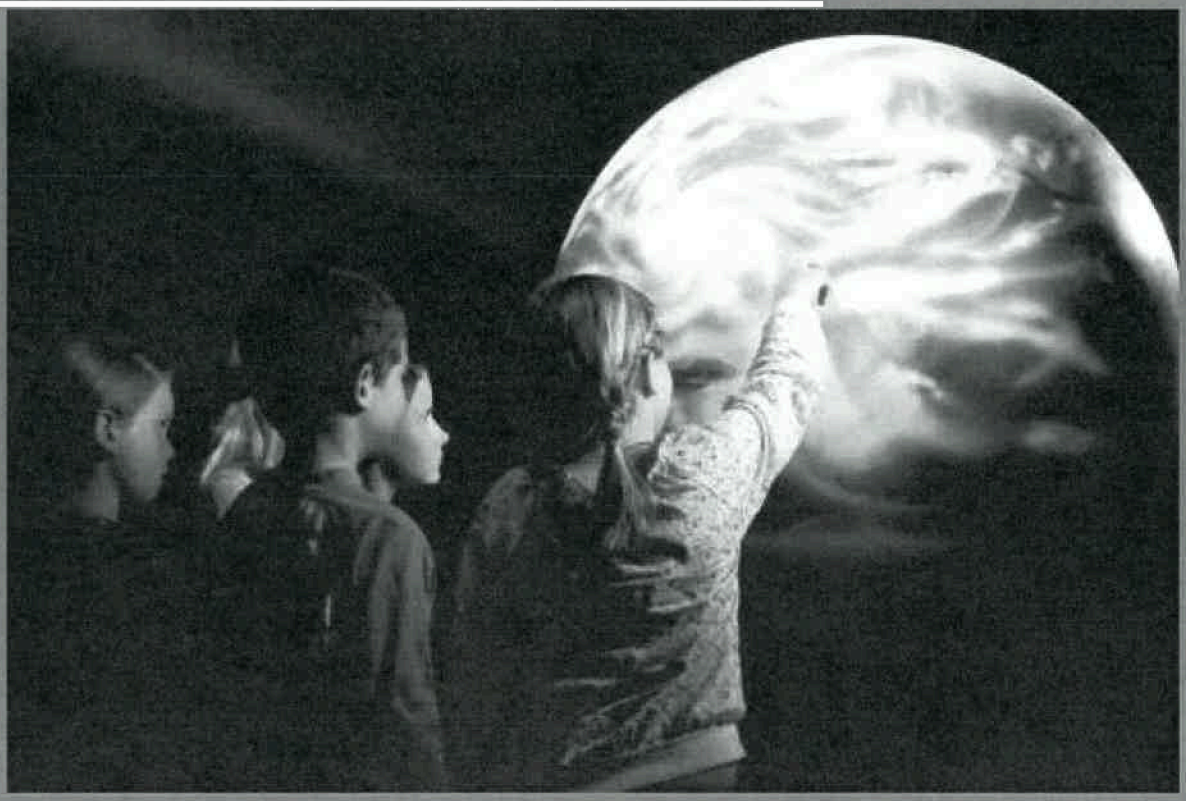
OCEAN

Landforms and Bodies of Water



Hey, scientists!

Did you know that Earth's surface is made of landforms and bodies of water?

A landform is any formation of rock and soil that is made naturally. These landforms can be as large as a continent or as small as a hill. Bodies of water can be as large as the ocean and as small as a pond.

What are some landforms and bodies of water that you know? Are they made quickly or slowly or both?

Landforms

ISLANDS: a piece of land that has water all around it

An island is a piece of land that has water all around it. Do islands float or move around like glaciers? It may look like islands float, but they don't. An island is part of a bigger piece of land that is under water. The land has built up from the bottom of the body of water. The part that sticks out of the water is the island.

PLAINS: a flat or gently rolling landform that covers many miles

Have you ever seen a flat part of the land that goes as far as you can see? Prairies, grasslands, and steppes are often found on plains. Plains are formed by the erosion of nearby mountains or hills and other natural events such as lava flows from volcanoes and pieces of weathered rock deposited by water, ice, or wind.

MOUNTAINS: large landforms that rise above the surrounding land

The tallest mountain can be seen from miles away. Many mountains form along a similar line called a mountain range, which looks like a spine along Earth's surface when you look down on it from an airplane. Mountains form and disappear over many lifetimes from plate movement, volcanic activity, and weathering and erosion.

VALLEYS: a low area between mountains

Valleys are found between mountains and mountain ranges. Valleys often have a stream or river flowing through them. Erosion, weathering, and glacier movement form valleys slowly over very long periods of time.

Bodies of Water

OCEANS: largest bodies of water on Earth

Oceans cover more of Earth's surface than landforms. Ocean water is salty. When it rains, the rainwater runs off surrounding land and mixes with minerals from the rocks. Much of this water then flows into the ocean. These minerals cause the ocean water to be salty. Some of the salt in ocean water also comes from underwater volcanoes and heated vents on the ocean floor.

RIVERS: bodies of fresh water that flow into other bodies of water

Rivers flow into other bodies of water (oceans, lakes or another river). River water comes mainly from rain and mountain lakes. Rivers change their size at different times of the year, which changes the land around them. Have you ever been on an airplane and see a river from high above?

LAKES: bodies of water surrounded by land that is DEEP

Lake water is calm and fairly deep. Lakes do not flow from one place to another like a river. Plants can grow on the top of a lake but usually cannot grow from the bottom because there is often not enough light.

Interesting Fact! *Most lakes are filled with fresh water. Some lakes have salt in them. The Great Salt Lake in Utah is an example of a saltwater lake.* ***Why do you think it has salt in it?***

PONDS: bodies of water smaller and more shallow than lakes

Ponds are more shallow than lakes, so they have more light at the bottom. This allows plants to grow from the bottom up to the top. Water in a pond does not move. Just like with lakes, the water in a pond can be liquid in summer and solid in winter in freezing temperatures.

GLACIERS: large masses of ice that form on land

Glaciers form where the year-round temperature is very cold. Falling snow builds up in thick layers. The weight of the thick layers of snow presses tightly together and turns into solid water that we call ice. Glaciers move very slowly. Glaciers change the land by using their massive force to move rocks, soil and other natural materials from one place to another.

Glaciers are usually found near the North and South Poles or on very high mountains.

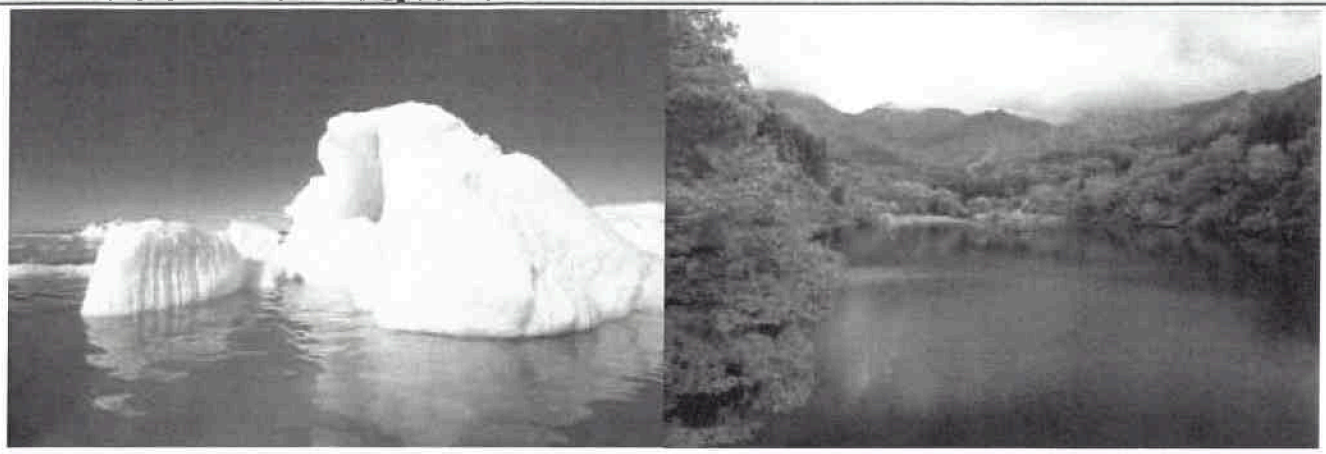
Interesting Fact! *The Finger Lakes in New York State were formed millions of years ago by glaciers that pushed dirt and rocks as they formed to make giant grooves in the land. These grooves were then filled with water as the ice melted to form these lakes.*

What Have I Learned?
What are some landform changes that occur slowly and quickly?
What kinds of bodies of water shape our planet?

What landform or body of water do you see near your home or school?

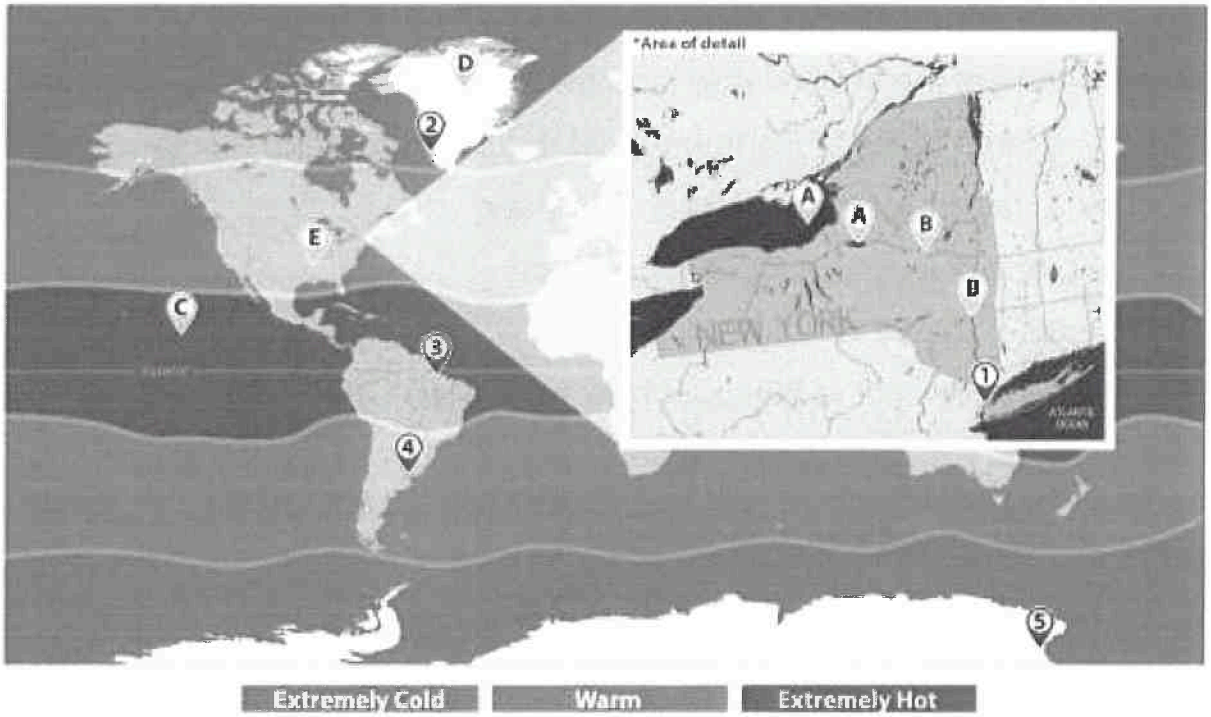
Are those bodies of water solid or liquid? Do they change?

WATER: SOLID OR LIQUID?



Think of all bodies of water that we learned about in this Source Guide: Oceans, Rivers, Lakes, Ponds, and Glaciers. ***How are these related to the temperature of Earth?***

Average Global Temperatures



What causes bodies of water to be SOLID or LIQUID?
Are these bodies of water ALWAYS solid or liquid?

Glossary

Landslides –Earth materials flow down a hill or mountain due to rain or vibrations

Vibrating – when something moves back and forth over and over again

Earthquake – a sudden violent moving of the ground

Fault – a large break in a section of land that has moved or is moving

Magnitude – the size or strength of an Earth event

Severe Weather – weather events that are of greater magnitude than a normal weather event

Tornado – a strong rotating windstorm that looks like a funnel-shaped cloud

Hurricane – a strong rotating storm that also brings heavy rain and very fast wind

Volcano – a mountain or hill that has a vent that has lava, rock, hot gases that erupt from this source

Erosion – the movement of earth materials over Earth's surface

Weathering – the natural breaking down of rocks and minerals

Plates – the large sections of Earth's surface that move gradually over time

Collide – when one object hits another object with great force

Continent – one of the seven large land masses on Earth

Mountain – a large mass of Earth material that is higher than the surrounding land

Landforms – natural features of Earth's surface

Islands – a piece of land surrounded by water

Plains – a large flat area of land with few trees

Valleys – a low area of land between hills and mountains

Oceans – a large expanse of salt water

Rivers – a section of water that flows over the land and ends in the ocean, a lake, a pond or another river

Lakes – a large body of freshwater surrounded by land

Ponds – a small body of fresh water surrounded by land

Glaciers – a slow-moving mass of ice formed from compacted snow

THIS BOOK ALIGNS TO THE FOLLOWING PERFORMANCE EXPECTATIONS

2-ESS1-1. Use information from several sources to provide evidence that Earth events can occur quickly or slowly.

2-ESS2-3. Obtain information to identify where water is found on Earth and that it can be solid or liquid.

Science 21 is a K-5 science curriculum with companion science kits that are specific for each grade level. With the introduction of the next generation of science standards, Science 21 has enlivened its curriculum with three dimensions of science learning: Science and Engineering Practices, Core Ideas, and Crosscutting Concepts. This book was written and designed for our Grade 2 curriculum to support the Earth Science section of the standards. Good science thinkers are good science readers!

David Jacob
REGIONAL SCIENCE COORDINATOR
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