

# HISTORY OF PLANET EARTH

## COMPARE & CONTRAST

## SLOW & FAST CHANGES

PREVIEW

KEEP SCROLLING TO SEE  
WHAT'S INSIDE!

### HISTORY OF THE EARTH

### Compare & Contrast

### Slow & Fast Changes



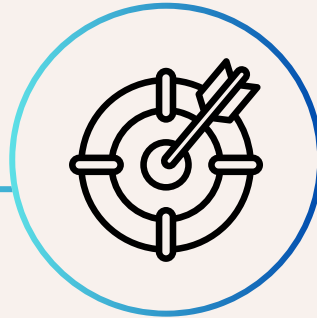
### Erosion Weathering Earthquakes Volcanos

# YOU WILL LOVE THIS BECAUSE



## **Teach Academic Language in Science**

Make complex concepts simple and engaging for your second graders.



## **Aligned with NGSS**

Explore how Earth changes over time through processes like erosion, weathering, and plate tectonics.



## **Save Time, Teach More**

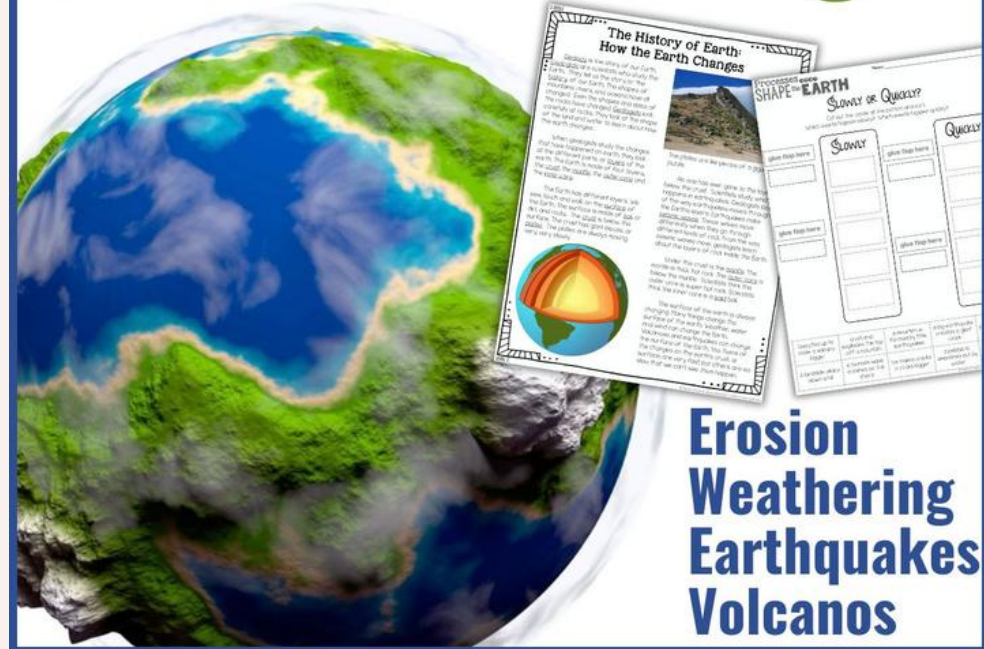
Ready-to-use activities that build comprehension and confidence.

# ACTIVITY OVERVIEW

## HISTORY OF THE EARTH

### Compare & Contrast

## Slow & Fast Changes



**Erosion**  
**Weathering**  
**Earthquakes**  
**Volcanos**

### Processes <sup>0000</sup> SHAPE the EARTH

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**Teacher Notes**  
About the Leveled Passages  
Oral Language Routines

**ESS1.C The History of Planet Earth: How the Earth Changes**  
Before Reading (Demonstrations, Vocabulary, Oral Language Development)  
During Reading (Text Dependent Questions)  
After Reading (Oral & Written Language Comprehension Activity)  
Writing Prompt Assessment

**ESS2.A Earth Materials and Systems: Wind and Water Change the Land**  
Before Reading (Demonstrations, Vocabulary, Oral Language Development)  
During Reading (Text Dependent Questions)  
After Reading (Oral & Written Language Comprehension Activity)  
Writing Prompt Assessment

**ESS2.B Plate Tectonics and Large-Scale System Interactions: Physical Maps**  
Before Reading (Demonstrations, Vocabulary, Oral Language Development)  
During Reading (Text Dependent Questions)  
After Reading (Oral & Written Language Comprehension Activity)  
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**ESS2.C The Roles of Water in Earth's Surface Processes: Where is Water?**  
Before Reading (Demonstrations, Vocabulary, Oral Language Development)  
During Reading (Text Dependent Questions)  
After Reading (Oral & Written Language Comprehension Activity)  
Writing Prompt Assessment

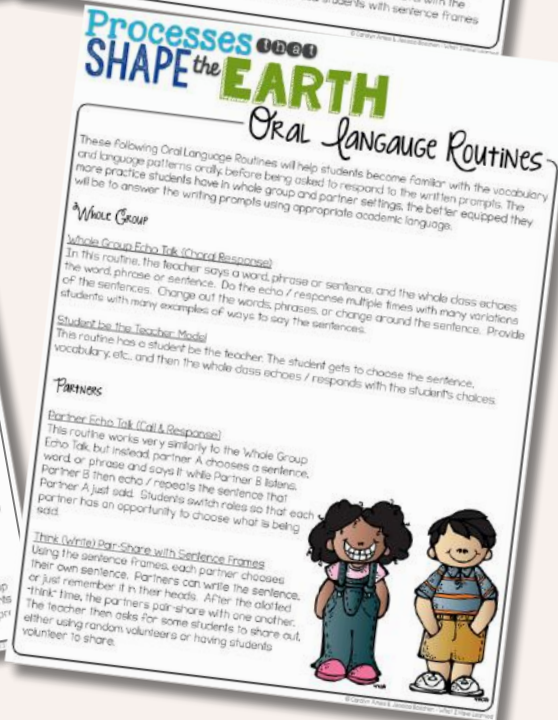
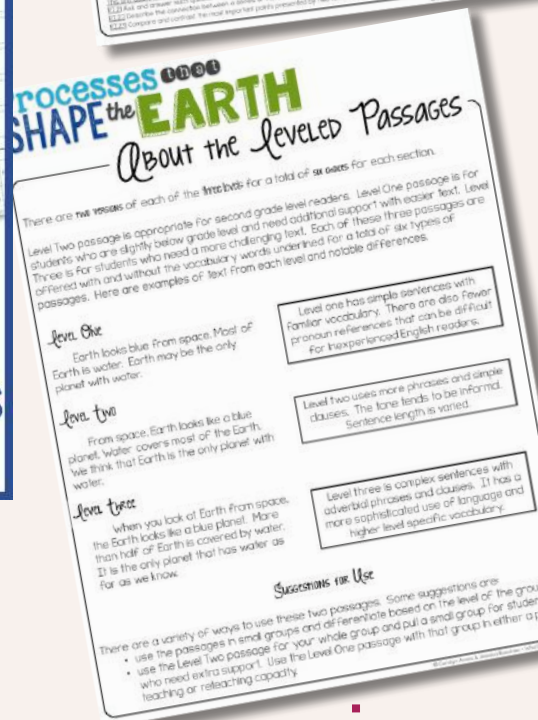
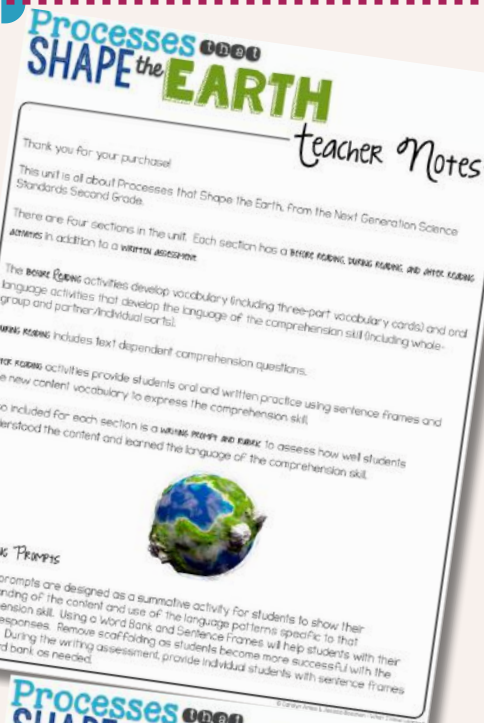


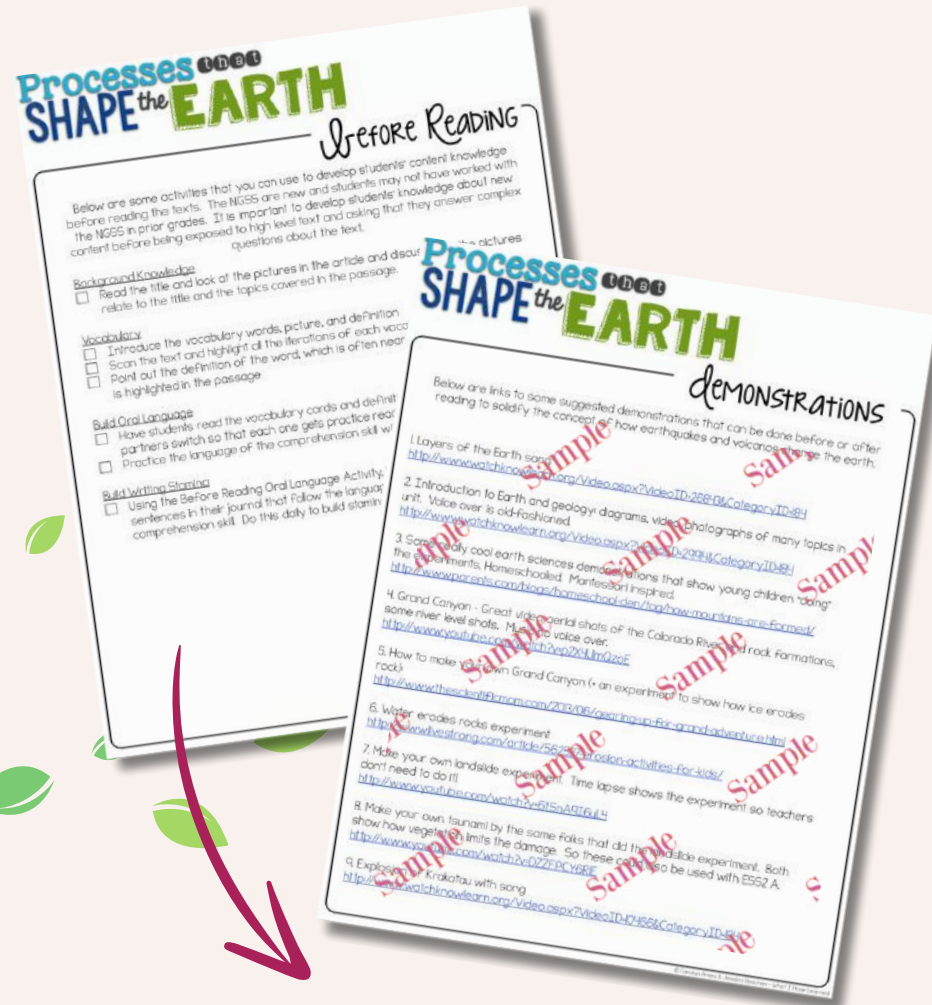
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Oral Language Routines

About the Leveled Passages

# READINGS & ACTIVITIES



**BEFORE READING  
ACTIVITIES &  
DEMONSTRATIONS**



**3 PART  
VOCABULARY  
CARDS**



**POCKET  
CHART  
CARDS**



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# THREE PASSAGES

## LEVELED PASSAGES

### LEVEL 1

### LEVEL 3

### LEVEL 2

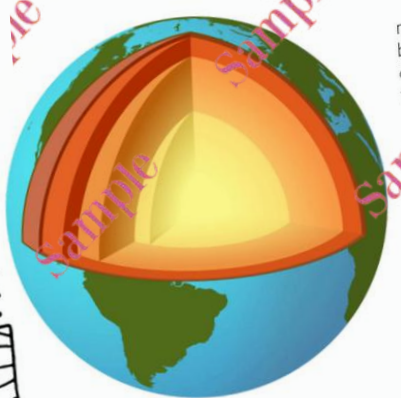
2-ESS1.C

### The History of Earth: How the Earth Changes

Geology tells us about the Earth. Geologists are scientists. They tell us how the Earth has changed. The shapes of mountains, rivers, and oceans have all changed. Even the shapes and sizes of the rocks have changed. Geologists look carefully at rocks, land and water to learn how the earth changes.

Geologists look at the different parts, or layers, of the Earth. The layers help them know how the Earth has changed. The Earth is made of four layers: the crust, the mantle, the outer core and the inner core.

We see the surface of the Earth. The surface is soil, or dirt, and rocks. The crust is below the surface. The crust has giant pieces, or plates. The plates move very slowly. The plates are like pieces of a gigantic puzzle.



2-ESS1.C

2-ESS1.C

### The History of Earth: How the Earth Changes

Geology is the story of our Earth. Geologists are scientists who study the Earth. They tell us the story, or the history, of our Earth. The shapes of mountains, rivers, and oceans have all changed. Even the shapes and sizes of the rocks have changed. Geologists look carefully at rocks. They look at the shape of the land and water to learn about how the earth changes.

When geologists study the changes that have happened on earth, they look at the different parts, or layers of the earth. The Earth is made of four layers: the crust, the mantle, the outer core and the inner core.

The Earth has different layers. We see, touch and walk on the surface of the Earth. The surface is made of soil, or dirt, and rocks. The crust has giant pieces, or plates. The plates are always moving very, very slowly.



2-ESS1.C

2-ESS1.C

### The History of Earth: How the Earth Changes

Geology is the story of our Earth. Geologists are scientists who study the Earth and tell us the story, or the history, of our Earth. The shapes of mountains, rivers, and oceans have all changed over millions of years. Even the shapes and sizes of the rocks have changed over thousands and millions of years! Geologists look carefully at rocks and at the shape of the land and water to learn about how the Earth changes.

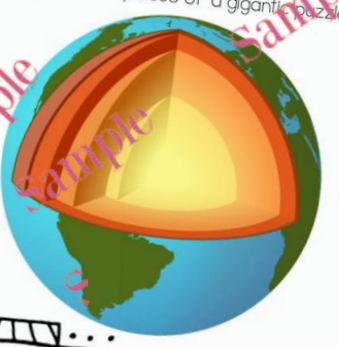
When geologists study the changes that have happened on earth, they look at the different parts, or layers of the earth. The earth is made of four layers: the crust, the mantle, the outer core and the inner core.

The surface is the part of the earth that we see, touch and walk on. The surface is made of soil, or dirt, and rocks. Underneath the surface is the crust. The crust has giant pieces, or plates, that are always moving very, very slowly. The plates are like pieces of a gigantic puzzle.

No one has ever gone below the crust. Scientists happen in earthquakes. (at the way earthquakes in the Earth's layers. Earthquakes seismic waves. These waves move differently when they go about the layers of rock.

Under the crust is the mantle. The mantle is thick, hot rock, below the mantle. Scientists think the outer core is super hot molten (liquid) rock. Scientists think the inner core is a solid ball.

The surface of the earth is always changing. Many things make the surface of the earth change. Some of the changes on the surface happen because of temperature, water and wind. Other changes happen because of events in the crust under the surface changes. For example, when there are volcanoes and earthquakes. Some of the changes on the earth's crust, or surface, are very fast, but others are so slow that we can't see them happen.



2-ESS1.C

2-ESS1.C

### Rock Erosion and Weathering

Most rocks are hard. They can still change size and shape. Look at a little rock. Maybe it started as part of a bigger rock. Maybe it was part of a mountain!

It's fun to think about a rock. Where did the rock start? What made it change? How long did it take to change?

Water Erosion



Water also changes the shape of rocks and land. Water can go over land or rocks for thousands of years. Slowly, the water changes the rock or land that it goes over.

A river made the Grand Canyon. For over a million years, the Colorado River flowed over the land. Very slowly, the river dug out the Grand Canyon. Now the canyon is almost 300 miles long. It is in one place. Parts of the canyon are still there. You can see them.

2-ESS1.C

### Earthquakes and Volcanos

The crust of the Earth has giant pieces of rock called plates. The plates fit together like a puzzle. The line where the plates touch is called a fault.

These plates are always moving. Usually the plates move very smoothly. But the plates can also push against each other. Sometimes they pull away from each other. We feel a big earthquake when the plates push or pull really hard.



Earthquakes can also change the Earth slowly. The plates push into each other. Then one plate goes up just a little bit. Each million of years of earthquakes can push up mountains!

Volcanoes also change the Earth's surface. Sometimes, hot rock, or magma, from the mantle pushes up to the surface. Magma on the surface of the Earth is called lava. The lava cools down on the surface. Then it turns into hard rock.

The hard lava makes different shapes on the earth. It can make a flat plain. It can pile up and make the volcano bigger. Sometimes the volcano can blow the top off the mountain. The explosion leaves a giant hole. Geologists call this hole a caldera.



2-ESS1.C

# COMPREHENSIVE QUESTION & ASSESSMENT

## Processes that SHAPE the EARTH

### during Reading Questions

#### The History of Earth: How the Earth Changes

What do geologists do?  
What are the layers of the Earth?  
How do geologists know about the insides of the Earth?

#### Rock Erosion and Weathering

Give an example of two things that work together to change rocks.  
Describe the change.

#### Rock Erosion and Weathering (con't)

What difference does the hardness of a rock make with sand erosion?  
Describe how the Wave or a Hoodoo was formed.

#### Earthquakes and Volcanos

Describe what causes an earthquake.  
Describe an effect of an earthquake on the surface of the Earth.  
Describe a shape that the hard lava can make.  
Give an example of a slow change and a fast change.



TEXT DEPENDENT  
COMPREHENSIVE  
QUESTIONS

## Processes that SHAPE the EARTH

Write About It  
Changes to the Earth's Surface  
Describe one event that happens quickly and one event that happens slowly to change the shape of the Earth's surface.

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## Processes that SHAPE the EARTH

### Writing RUBRIC

|   |                                                                                                                                                                                            |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5 | Student is able to respond to the topic in-depth with almost no support of the classroom anchor charts and sentence frames. May use charts for help with spelling.                         |
| 4 | Student is able to respond to the topic appropriately with little support of classroom anchor charts and sentence frames.                                                                  |
| 3 | Student is able to produce on-topic response with the language of the comprehension skill, but requires heavy support from classroom anchor charts and sentence frames.                    |
| 2 | Student is able to produce on-topic sentences with some support. Sentences answer the prompt, but may not demonstrate understanding of how to use the language of the comprehension skill. |
| 1 | Student is not able to produce on-topic sentences without one-on-one support                                                                                                               |

WRITING ASSESSMENT  
AND RUBRIC

# TEACHERS LOVE IT!



*I love all of your science materials. My students also enjoy work on the activities you created. Thanks for all the work you have done.*

**April G.**



*One of the best resources I have purchased! My students learned so much! Thank you!*

**Rebecca V.**



My passion is making learning accessible to all students.  
I love scaffolding learning, breaking down the concepts and  
building them up so that students can see the connections.  
I love figuring out the small components that build up to  
the big ideas and helping students see it all.



*What I have* **LEARNED**