

ELEMENTARY SCHOOL

*You will learn about*

- ores
- natural resources
- Earth's structures

## ORES

Enter the Hall from the Hall of the Universe and go to your right to the row of large ore samples.

1. Look at the three samples in the glass case. Can you tell what they are? Read the labels to find out. Write your answer:

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2. What is an ore?

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- ← 3. Find one ore that you like. Draw a picture and tell about it.

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### CHALLENGE

Find specimens 7 and 8. What are they?

What natural resources do they provide us with?

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## OUR DYNAMIC EARTH

Sit in the small amphitheater. Watch the Dynamic Earth Globe that is suspended from the ceiling. Notice how the clouds, vegetation, ice, and oceans are peeled away to reveal the Earth's rocky surface. Write a sentence or two telling what you learned.

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ELEMENTARY SCHOOL

*You will learn about*

- the formation of the Earth and planets

## HOW HAS THE EARTH EVOLVED?

Examine the diagrams to learn how the solar system formed.

1. How did the inner planets, including Earth, form?

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← 2. Sketch the organization of the Earth.  
What elements are found in the core? The mantle? The crust?

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← 3. Find these rocks and minerals: #13: zircon, #12: Acasta gneiss, # 23: banded iron. What do they tell us about the Earth? Choose one of them. Write about it. Draw a picture of it.

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### CHALLENGE

What clues do meteorites give us about the formation of the Earth?

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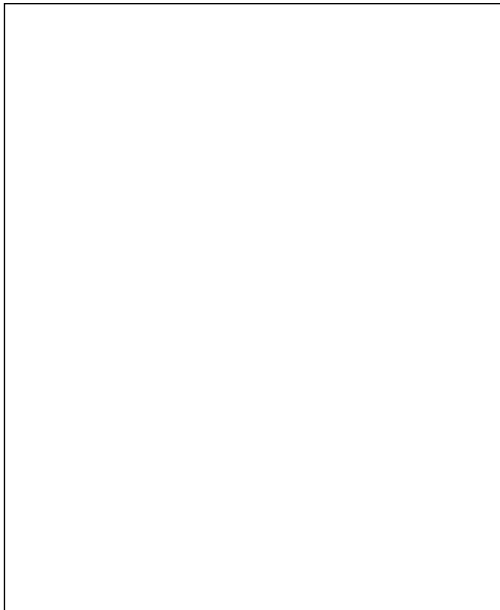
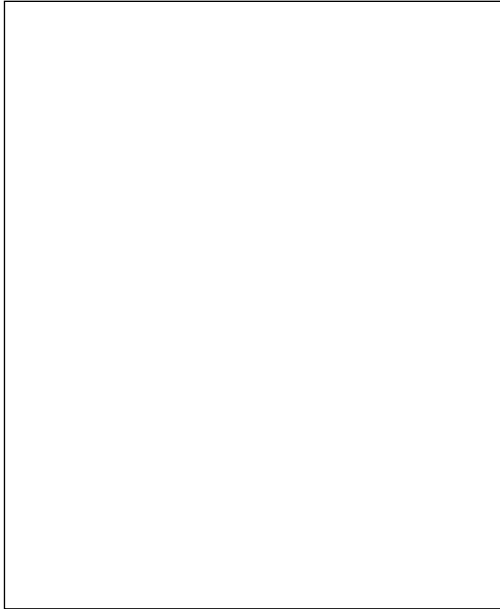
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ELEMENTARY SCHOOL

*You will learn about*

- plate tectonics
- volcanoes
- how mountains form

## WHY ARE THERE OCEAN BASINS, MOUNTAINS, AND CONTINENTS?

Go to the center of this area of the exhibit and explore the video interactives, read text, and look at the graphic displays.

1. What is convection?

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2. Find the video station that demonstrate plate tectonics and look at the 3-D block models of the plate boundaries.

What happens when two plates collide?

What happens when two plates move apart?

What happens when two plates slide past each other?

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3. Explain how earthquakes occur.

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4. Explain how mountains build.

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5. Find the two volcano displays. What kind of volcanic eruption is caused by plates colliding? What kind of volcanic eruption is caused by plates separating? Draw a volcano.

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### CHALLENGE

Examine the brass globe. Turn it and feel the land features. Look for the parts of the Earth's crust that are not visible on most other globes. Think about why there are ocean basins. Write down your ideas.

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ELEMENTARY SCHOOL

*You will learn about*

- igneous, sedimentary, and metamorphic rocks
- how geologists find clues in rocks

## HOW DO WE "READ" THE ROCKS?

1. Look at the samples of igneous, metamorphic, and sedimentary rock. Choose a sample of each kind of rock. Draw a picture of it. Tell how it formed. What can it tell us about how the Earth works?

Igneous

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Metamorphic

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Sedimentary

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### CHALLENGE

← Find specimen #15. How old is it? Draw a picture or write a sentence describing it. What can it tell you about Wyoming?

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ELEMENTARY SCHOOL

*You will learn about*

- climate
- ice cores
- El Niño
- global warming.

## WHAT CAUSES CLIMATE AND CLIMATE CHANGE?

Examine the climate videos and information panels to learn how the atmosphere and oceans interact to create climate and weather patterns.

1. Where can scientists find evidence of past climate?

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2. Look at the ice core model. Why are some parts black? Brown? White? Use the interactive computer station to study the ice core. Write down a few interesting facts that you learned.

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3. What is El Niño? Where does it occur? Where did it get its name?

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### CHALLENGE

Go to the interactive computer station in the carbon cycle display. Watch the introduction. Select 'factory icon.' Conduct an experiment using the simulation. Record what you learned about the problem called global warming.

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ELEMENTARY SCHOOL

*You will learn about*

- three things necessary for life on Earth
- sulfide chimneys
- rock cycle
- carbon cycle
- water cycle

## WHY IS THE EARTH HABITABLE?

Explore the displays in this exhibit to learn why life on Earth is possible.

1. What three things are necessary for life on Earth?

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2. Find the sulfide chimneys (also called “black smokers”). Draw a picture of one. Watch the video. What plants and animals are found on sulfide chimneys? Draw animals and plants on your sulfide chimney. Label them. Use information panels in the exhibit to help identify them.

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3. Find the display that illustrates Earth’s three cycles. Name the three cycles. Choose one and tell how it works.

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### CHALLENGE

Where does the energy come from to support life at deep sea vents? How do sulfide chimneys challenge what many people believe is necessary for life?

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### CHALLENGE YOURSELF

If you were a scientist, what would you like to explore?

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