
Looking at Our Changing Earth

Start-to-Finish® Core Content



Chapter 1: Hutton's Hammer: How the Science of Geology Began

Comprehension Questions

1. What did the first geologists look at?
 - a. They looked at ocean waves.
 - b. They looked at the stars and the planets.
 - c. *They looked at layers of Earth's crust in high cliffs and deep mines.*
 - d. They looked at new mountains.

2. What did the first geologists learn about the surface of Earth?
 - a. They learned that the surface of Earth is all sandstone.
 - b. They learned that Earth's crust is about one mile deep.
 - c. They learned that the surface of Earth has never changed.
 - d. *They learned that Earth's crust is made of layers of rock.*

3. Hutton could not guess exactly how old Earth was. What do scientists say today?
 - a. *Scientists say that Earth is more than four and a half billion years old.*
 - b. Scientists say that Earth is a few hundred years old.
 - c. Scientists say that Earth is a few thousand years old.
 - d. Scientists say that Earth is between fifty and eighty thousand years old.

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Chapter 1: Hutton's Hammer: How the Science of Geology Began

Vocabulary Questions

1. The rocky outer layer of Earth is called Earth's _____.
 - a. geode
 - b. strata
 - c. sediment
 - d. *crust*

2. Strong waves can _____ or wear away the cliffs by the ocean.
 - a. split
 - b. open
 - c. *erode*
 - d. sink

3. The study of Earth and its rocks is called _____.
 - a. *geology*
 - b. geode science
 - c. strata history
 - d. rockhounding

4. _____ is bits of dirt, rock, and sand that are often found in the bottom of rivers, lakes, and seas.
 - a. Geology
 - b. *Sediment*
 - c. Limestone
 - d. Crystal



Chapter 2: Ways to Study Rocks

Comprehension Questions

1. What do quartz crystals look like?
 - a. Quartz crystals are almost clear and they have flat sides.
 - b. Quartz crystals are always red in color.
 - c. Quartz crystals contain tiny specks of gold.
 - d. Quartz crystals are dark in color and usually round in shape.

2. Geologists ask questions to tell minerals apart. Mark the answer that is **not** one of the questions they ask.
 - a. What shape are the mineral's crystals?
 - b. How hard is the mineral?
 - c. What happens when you drop the mineral into water?
 - d. What happens when light hits the mineral?

3. Some tests can help you tell the difference between real gold and fool's gold. Mark the test that will **not** help you tell the difference.
 - a. The spark test. What happens when you hit the mineral against steel?
 - b. The hammer test. What happens when you hit the mineral with a hammer?
 - c. The color test. What color is the mineral?
 - d. The streak test. What happens if you scrape the mineral across a white tile?

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Chapter 2: Ways to Study Rocks

Vocabulary Questions

1. _____ crystals have flat sides and are almost clear.
 - a. Geo
 - b. Gold
 - c. Pyrite
 - d. Quartz

2. _____ is also called fool's gold. If you scrape it across a white tile, it will leave a greenish black streak.
 - a. Limestone
 - b. Pyrite
 - c. Strata
 - d. Sediment

3. _____ is a round, hollow rock with crystals inside.
 - a. A geode
 - b. Sandstone
 - c. Limestone
 - d. Fool's gold

4. A geologist is a scientist who studies Earth and its _____.
 - a. water
 - b. trees
 - c. rocks
 - d. sky

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Chapter 3: Looking Underground at Layers of Earth

Comprehension Questions

1. What kind of rock starts out as mud on the bottom of a river or lake, or sand on the bottom of an ocean or in a desert?
 - a. Igneous rock
 - b. Sedimentary rock
 - c. Metamorphic rock
 - d. Geo rock

2. What kind of rock starts out as hot melted rock from under Earth's crust?
 - a. Sedimentary rock
 - b. Geo rock
 - c. Metamorphic rock
 - d. Igneous rock

3. What is metamorphic rock?
 - a. Rock that has changed from one kind of rock to another kind of rock.
 - b. Rock that turns into sedimentary rock.
 - c. Rock that starts out as sand and becomes sandstone.
 - d. Rock that starts out as thick layers of dead plants.

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Chapter 3: Looking Underground at Layers of Earth

Vocabulary Questions

1. A _____ truck shakes Earth's crust to find out what kind of strata it has.
 - a. shale
 - b. granite
 - c. vibrator
 - d. strata

2. _____ is a kind of sedimentary rock that comes from plants.
 - a. Marble
 - b. Granite
 - c. Magma
 - d. Coal

3. A _____ sample is a sample of rock strata that is obtained by drilling into Earth's crust.
 - a. core
 - b. crust
 - c. geode
 - d. Hutton

4. _____ is hot melted rock that is under the surface of Earth.
 - a. Lava
 - b. Magma
 - c. Granite
 - d. Sedimentary rock

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Chapter 4: Eyes in the Sky

Comprehension Questions

1. Satellite photos from outer space show scientists many things about Earth. Which of these statements about satellite photos is **not** true?
 - a. Satellite photos help geologists make maps of Earth's surface.
 - b. Satellite photos can show changes in a river's shape after a big flood.
 - c. Satellite photos can show different kinds of rock on Earth's surface.
 - d. *Satellite photos give geologists core samples.*
2. What tool do geologists use to see how Earth's crust is moving?
 - a. A radio
 - b. *GPS*
 - c. A magnifying glass
 - d. A long drill
3. Satellites can show when a spot on Earth's surface has moved, even when it's only moved a small amount. How small a movement can the satellites show?
 - a. *Less than half an inch (less than one centimeter)*
 - b. 50 miles (80 kilometers)
 - c. 7 miles (11 kilometers)
 - d. About 10 feet (3 meters)

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Chapter 4: Eyes in the Sky

Vocabulary Questions

1. Spacecraft that are in orbit around Earth are called _____.
 - a. GPS
 - b. strata
 - c. Dakota
 - d. *satellites*

2. If you have _____ in your car, you are getting directions with the help of satellites in outer space.
 - a. *GPS*
 - b. a CD player
 - c. oil
 - d. quartz

3. The crust of Earth is broken into large flat pieces called _____.
 - a. *plates*
 - b. Rushmores
 - c. sedimentary rock
 - d. shale

4. Satellite photos help geologists find _____ and minerals under ground.
 - a. GPS
 - b. lava
 - c. *oil*
 - d. earthquakes