

Rock Story Detectives

Read how rocks form, then identify each rock category.

SC.4.E.6.1 "Identify the three categories of rocks: igneous, (formed from molten rock); sedimentary (pieces of other rocks and fossilized organisms); and metamorphic (formed from heat and pressure)."

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Part 1 READ AND MARK: In each paragraph, circle the rock category word in the sentence that begins the category description. Underline the words in that same sentence that tell how the rock forms.

Three Rock Stories

- ① At a rock display, Mia picks up a piece of granite. **Igneous** rock forms when molten rock cools and hardens. Molten rock below Earth's surface is called magma. When it cools slowly underground, minerals can make large, visible crystals. Lava is molten rock that reaches the surface. Lava can also cool and harden into igneous rock, often with tiny crystals.
- ② On another shelf, Mia sees sandstone with grains that feel rough. **Sedimentary** rock forms from pieces of other rocks, called sediment, and from fossilized organisms. Water, wind, or ice can move sediment. The pieces settle in layers. Over a long time, the layers are pressed together and cemented by minerals. Shell pieces can become part of some sedimentary rocks.
- ③ Mia then examines marble, a rock that began as limestone. **Metamorphic** rock forms when an existing rock changes because of heat and pressure deep inside Earth. The rock does not melt. Instead, its minerals may rearrange, making the rock look different. Marble can form when limestone is changed by heat and pressure. Each category tells a different story about how a rock formed.

2 ANSWER WITH EVIDENCE Use the passage

1 Part 2 QUESTIONS: Granite formed when molten rock cooled and hardened. What category is granite?

2 What two kinds of material can form sedimentary rock?

3 What happens to sediment after it settles in layers?

4 Why is marble metamorphic instead of igneous?

3 YOUR TURN Your own words

Part 3 YOUR TURN: Rock Museum Label. Choose one rock category and write exactly two sentences for a museum label about a rock sample. Name the category, explain how it forms, and use an example other than granite, sandstone, or marble.

PART 1 • READ AND MARK

Part 1 READ AND MARK: In each paragraph, circle the rock category word in the sentence that begins the category description. Underline the words in that same sentence that tell how the rock forms. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	Part 2 QUESTIONS: Granite formed when molten rock cooled and hardened. What category is granite?	Igneous rock.
2	What two kinds of material can form sedimentary rock?	Pieces of other rocks, called sediment, and fossilized organisms.
3	What happens to sediment after it settles in layers?	The layers are pressed together and cemented by minerals over a long time.
4	Why is marble metamorphic instead of igneous?	Marble forms when limestone changes because of heat and pressure. It does not form by molten rock cooling and hardening.

PART 3 • YOUR TURN (SAMPLE ANSWER)

Basalt is an igneous rock that forms when lava cools and hardens at Earth's surface. My museum label would tell visitors that basalt's tiny crystals formed as the lava cooled quickly.

Accept category names and formation explanations that match the passage. For the Rock Museum Label, accept any accurate example other than granite, sandstone, or marble, as long as the two sentences name a category and explain its formation.