Read "Rocks From Outer Space" to find out information about meteors that fall to Earth from space. Then answer the questions that follow.

Rocks From Outer Space

"Shooting stars" and other space rocks bring secrets down to Earth.

by Jill Max

Have you ever wished upon a shooting star? If so, you weren't wishing on a *real* star. That bright streak of light you saw high in the night sky was made by a *meteoroid*.

Meteoroids are pieces of rock and metal from outer space. Once they enter earth's atmosphere, they're called *meteors*.

Meteors are usually so small that they burn up before they ever hit the ground. But some meteors are bigger lumps that shoot all the way through the atmosphere and hit the ground. Then those lumps are called *meteorites*.

Most meteorites are baseball-sized or smaller. But a few have been found that are the size of a car. And scientists know that a couple have been bigger than a 10-story building. These monster meteorites broke into zillions of small pieces when they hit the ground. But the craters they left behind are huge!

Large or small, all meteorites are important to scientists. That's because most of them were formed at the same time as our earth and the other planets—more than four and a half billion years ago. So scientists think meteorites carry important clues about how the planets were formed.

Searching For Space Rocks

You can help scientists find more space rocks to study! Dozens of meteorites fall from the sky each day—but only a few are found each year. They're scattered in mountains, fields, woods, and maybe even in your own backyard.

Most meteorites are found by people who aren't scientists. They just happen to spot a rock that doesn't look "quite right." So what do meteorites look like? Most of them are shiny black or rust-colored. And their surface almost always looks like it has melted.

Check these two things also:

1. Hold a magnet against the rock. Does it stick? Then *maybe* it's a meteorite. (A magnet will also stick to a few kinds of earth rocks.)
2. Use a metal file to file off a corner of the rock. Is the crust thin? Does the inside look really different from the outside? Then it really might be a meteorite.

But wait—don't get excited yet. Meteorite experts say to watch out for two kinds of things that look like meteorites: rocks from volcanoes and stuff called *furnace slag*.* Both of these things can look black and melted. But they also look bubbly or full of holes, and they are the same color all the way through.

Now What?

How can you find out for sure if your weird rock is from outer space? Show it to someone who knows meteorites. Look for a meteorite expert at any museum that has a meteorite display. Or you can ask someone at a planetarium or college geology department. You can also write to your state geologist's office or department for help. (The local library should have the addresses of the museums, colleges, and state offices.)

***Furnace slag:** a rock-like material that is left over when iron and steel are made.

If your weird rock really is a meteorite, you may want to share it with scientists. Your meteorite expert should be able to tell you where to send your space rock so it can be studied. The scientists may need only a slice of the meteorite. If so, they might send the rest back to you. And then you can add a rock that fell from the sky to your collection. What a spacy idea!

Space-Rock Words
Atmosphere: Layers of air that cover the earth like a blanket.
Comets: Chunks of ice, frozen gas, and dust that orbit around the sun.
Meteoroid: A small object that orbits the sun.
Meteor: A meteoroid that passes into earth's atmosphere.
Meteorite: A meteor that falls to the ground.

1. According to the selection, what is the ***main*** reason scientists are interested in meteorites?

   A Meteorites may provide clues about the formation of Earth.

   B Meteorites contain minerals that are not found on Earth.

   C Meteorites are much bigger than any other rocks on Earth.

   D Meteorites have traveled thousands of miles through space to reach Earth.

2. According to the selection, which statement is true?

   A All rocks are meteorites.

   B All rocks are magnetic.

   C Most meteorites are found by scientists.

   D Most meteorites are found by ordinary people.

3. Which is the ***best*** clue that a rock may be a meteorite?

   A The outside of the rock is dull gray.

   B The outside of the rock is bubbly and full of holes.

   C The inside and outside of the rock look different.

   D The inside and outside of the rock are the same color.

4. The author wrote that adding a meteorite to a rock collection is "a spacy idea." What is the ***most likely*** reason she used this expression?

   A to show that collecting meteorites is silly

   B to make a play on words about collecting meteorites

   C to make fun of people who collect meteorites

   D to show that meteorites are difficult to find

5. What is the ***main*** difference between meteors, meteorites, and meteoroids?

   A what they are made of

   B where they are located

   C how they are formed

   D how old they are

6. What is the ***best*** way to find out for sure whether a rock is a meteorite?

   A Check to see whether it looks black and melted.

   B Ask someone at your school.

   C Ask someone at a planetarium.

   D Check to see whether it has a thin crust.

End of Set

Answers to
Grade 4 Reading Comprehension Sample Items

Selection Title	Question Number	Correct Answer	Category	Thinking Skill	Objective Number
Rocks from Outer Space	1	A	Cognition	Knowledge	2.02
Rocks from Outer Space	2	D	Cognition	Knowledge	2.02
Rocks from Outer Space	3	C	Interpretation	Evaluating	2.05
Rocks from Outer Space	4	B	Critical Stance	Generating	3.01
Rocks from Outer Space	5	B	Critical Stance	Organizing	2.02
Rocks from Outer Space	6	C	Cognition	Knowledge	2.02