

# ROCKS & MINERALS ANTICIPATION GUIDE

Read each statement and decide if it is True or False. Complete the left column before the reading by circling the T for True or the F for False. Complete the right column after you finish the reading. Did any of your answers change?

BEFORE READING		STATEMENT	AFTER READING	
T	F	Basalt is a rock that develops from volcanoes.	T	F
T	F	There are over 4,000 minerals in the human body.	T	F
T	F	Minerals can grow together to create rock formations.	T	F
T	F	Moh's Scale measures a mineral's Weight.	T	F
T	F	Streak refers to the powder residue left behind.	T	F
T	F	Geologists classify rocks by type.	T	F
T	F	Luster refers to how a mineral reflects light.	T	F
T	F	Obsidian is sometimes called volcanic glass.	T	F
T	F	Fluorite is a compound with calcium and fluorine.	T	F

**DID YOU KNOW?**

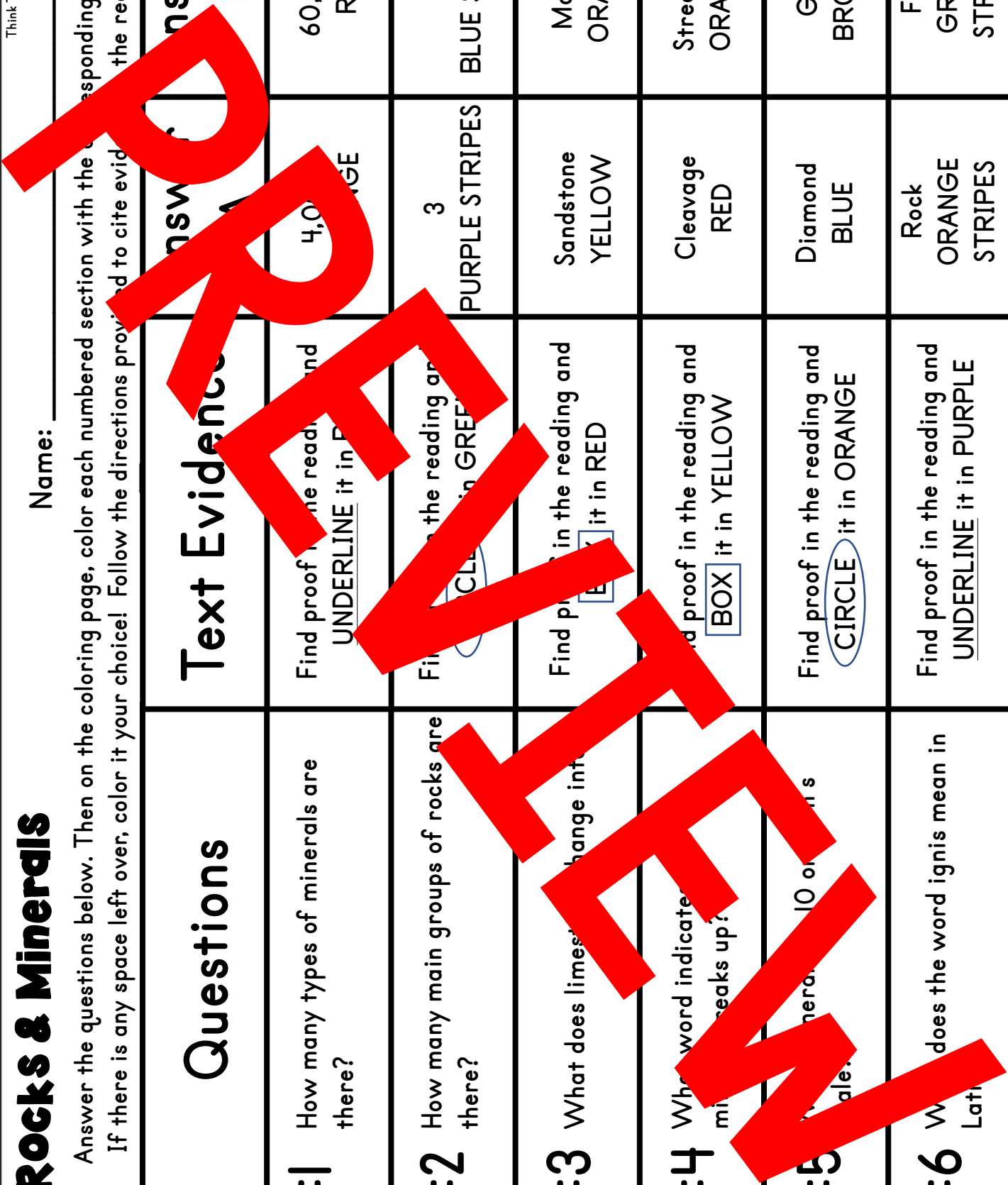
Some minerals have a streak color that is different from the color of the mineral.

# Rocks & Minerals

Name: \_\_\_\_\_

Answer the questions below. Then on the coloring page, color each numbered section with the corresponding color. If there is any space left over, color it your choice! Follow the directions provided to cite evidence from the reading.

Questions	Text Evidence	Answer	Answer
#1 How many types of minerals are there?	Find proof in the reading and <u>UNDERLINE</u> it in <b>PURPLE</b>	4,000 <b>PURPLE</b>	60,000 <b>RED</b>
#2 How many main groups of rocks are there?	Find proof in the reading and <u>CIRCLE</u> it in <b>GREEN</b>	3 <b>PURPLE STRIPES</b>	6 <b>BLUE STRIPES</b>
#3 What does limestone change into?	Find proof in the reading and <u>BOX</u> it in <b>RED</b>	Sandstone <b>YELLOW</b>	Marble <b>ORANGE</b>
#4 Which word indicates minerals break up?	Find proof in the reading and <u>BOX</u> it in <b>YELLOW</b>	Cleavage <b>RED</b>	Streaking <b>ORANGE</b>
#5 How many minerals are there? 10 or more?	Find proof in the reading and <u>CIRCLE</u> it in <b>ORANGE</b>	Diamond <b>BLUE</b>	Gold <b>BROWN</b>
#6 What does the word ignis mean in Latin?	Find proof in the reading and <u>UNDERLINE</u> it in <b>PURPLE</b>	Rock <b>ORANGE STRIPES</b>	Fire <b>GREEN STRIPES</b>



# ROCKS & MINERALS

What is the difference between rocks and minerals? The short answer is that minerals are one element or a combination of elements. Rocks, however, are a variety of minerals. Minerals can grow together to create rock formations.

Minerals are solid substances that occur in nature. Minerals can have one element or a combination of elements. There are 4,000 types of minerals, including calcite, gypsum, feldspar, pyrite, quartz, gold, and diamond. About 30 kinds of minerals are found in the earth's crust. 99 percent of the earth's crust minerals are made of silicon, aluminum, iron, calcium, sodium, potassium, and magnesium. The human body has 60 minerals, including iron and copper.

All minerals are solid at room temperature. They are not created in a lab, but they develop in nature. Minerals are inorganic because they do not come from plants, animals, or other living matter. Minerals have specific chemical formulas and structures, often with a crystal structure. They are categorized by crystal structure, hardness (Moh's scale), luster, color, streak, fracture, cleavage, and density.

Moh's scale of hardness indicates the ability of minerals to scratch each other. Moh's scale labels the softest mineral as a "1" and a "10" as the hardest. For instance, talc is a 1 on Moh's scale. Diamonds, however, are 10 because they are the hardest minerals.

Luster refers to how a mineral reflects light. Some examples are glassy, metallic, brilliant, and dull.

Streak identifies the mineral's color after rubbing it on a hard surface. Streak refers to the powder residue left behind. Sometimes the streak color is different than the mineral color.

Cleavage indicates how a mineral breaks up. It can break into bits and pieces or even into thin sheets.

The density of a mineral is measured by comparing it to the density of water. Water has a specific gravity of 1.

Color can be a vague category because some minerals have many colors.

Minerals can consist of only one element. However, it is common for minerals to have two or more elements, making it a compound. For instance, fluorite is a compound with calcium and fluorine. A diamond, however, is only