



# ROCK CYCLE 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	The word "ignis" means fire.	T	F
T	F	Weather and sediment are called atmosphere.	T	F
T	F	Sediments include rock, minerals, plants, and organic matter.	T	F
T	F	Glaciers and rivers erode rock.	T	F
T	F	Cooling happens when heat melts the rock inside the earth's crust.	T	F
T	F	Sediments form from lava or magma.	T	F
T	F	Heat in the earth comes from pressure, friction, & radioactive decay.	T	F
T	F	Heat bakes the rock inside the crust causing crystals to form.	T	F
T	F	Pressure within the earth's crust cause tectonic plates to shift.	T	F

**DID YOU KNOW?**

The Taj Mahal is made of a different type of marble, a metamorphic rock.

# Rock Cycle

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
<b>#1</b> How many main types of rock are there?	Find proof in the reading and <u>UNDERLINE</u> it in <b>PURPLE</b>	Three <b>PURPLE STRIPES</b>
<b>#2</b> What is melted rock inside a volcano called?	Find proof in the reading and <u>CIRCLE</u> it in <b>GREEN</b>	Magma <b>PURPLE STRIPES</b>
<b>#3</b> What's the process of layers of sediment squishing together?	Find proof in the reading and <u>BOX</u> it in <b>RED</b>	Compacting <b>YELLOW</b>
<b>#4</b> Shifting plates create mountains. What else do they create?	Find proof in the reading and <u>BOX</u> it in <b>YELLOW</b>	Downshift <b>RED</b>
<b>#5</b> What is the process called "melting"?	Find proof in the reading and <u>CIRCLE</u> it in <b>ORANGE</b>	Change <b>BLUE</b>
<b>#6</b> What is it called when compacted layers of sand and stick together?	Find proof in the reading and <u>UNDERLINE</u> it in <b>PURPLE</b>	Cooling <b>ORANGE STRIPES</b>
		Cementing <b>GREEN STRIPES</b>

# ROCK CYCLE

Rocks settle deep within the earth's surface. Over millions of years, they can shift, move toward to the surface, and return below the earth's surface.

This never ending process is called the rock cycle. Igneous, sedimentary, and metamorphic rocks are the three main types of rock in the rock cycle. The rock cycle is the transformation of these three rock groups into one another.

Igneous rock is named after the word "ignis", which means fire. Igneous rocks form from magma or lava, the molten or melted rock beneath the earth's crust.

Sedimentary rock is formed from layers of sediment at the bottom of oceans and lakes. Sediment includes rocks, minerals, plants, and organic matter, including fossils. Rivers, streams, glaciers, and wind carry the sediment. Eventually it all settles in layers and hardens.

Metamorphic rock is named after the word "morphe", which means to change. Heat and pressure within the earth's crust cause tectonic plates to shift. This changes the composition of the rock.

There is a general order to the rock cycle. First, intense heat melts rock below the earth's surface, creating molten rock. A volcano erupts, sending the magma (melted rock) to the surface. Upon cooling, this rock becomes igneous rock.

Now the rock breaks up into fragments due to weather or a river. Glaciers and rivers erode rock. The constant flow of water breaks rocks into tiny bits and smooths out the remaining rock. These rock fragments, called sediment, flow by rain and river to oceans, sea beds, and lakes. Here they build up in layers and harden. These layers of sediment become sedimentary rock. Over millions of years, more rock layers cover the original layers, which push deeper into the earth's crust.

Pressure builds from layers of sediment that has hardened. Heat from below the earth's surface combined with pressure changes sedimentary rock into metamorphic rock. At this point, the cycle begins again. However, the rock cycle doesn't always take this order. Rocks can change in other ways.

Below the earth's surface, there is intense heat, pressure, and time. This affects the rock below the surface, changing igneous or sedimentary rock into metamorphic rock. Extreme heat melts rock below the surface, causing molten rock. this magma (molten rock) spews out of the earth