PEACE
PREVIEW
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EARTHQUAKES 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 finish the reading. Did any of your answers change?

BEFORE READING	STATEMENT	AFTER READING
T F	are seven major tectonic plates.	T F
T F	Sci sts can predict an earthquake.	T F
T F	Smalle nqu after the mainshock are calle oreshocks.	T F
T F	hypoce r, or fo is below the Earth's ace.	T F
T F	P wa es are the seismic v es to arrive, S ves nd.	T F
T F	Waves of en travel throug crust are called Tsunami wav	T F
T F	The Moment Magnit de Sc ptures differ nt sei ves.	T F
T F	The Richter Scale w nvented harles Richter.	T F
T F	Earthquakes are the strong, len move ment of tectonic plates	T F

DID YOU KNOW?

Alaska has the most ic tivity North Americ

PREVIEW

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Earthquakes

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 A	Answer B
#1 What is a crack in the Earth's surface called?	Find proof in the reading and UNDERLINE it in PURPLE	Tre... GE	Fault RED
#2 What year was the Richter Scale invented?	Find proof in the reading and CIRCLE it in GREEN	1935 PURPLE STRIPES	1847 BLUE STRIPES
#3 Where is the most active fault zone in the U.S.?	Find proof in the reading and BOX it in RED	San Antonio YELLOW	San Andreas ORANGE
#4 There are how many earthquakes?	Find proof in the reading and BOX it in YELLOW	Two RED	Four ORANGE
#5 What type of earthquake is the most common?	Find proof in the reading and CIRCLE it in ORANGE	Tectonic BLUE	Volcanic BROWN
#6 What instrument is used to measure seismic waves?	Find proof in the reading and UNDERLINE it in PURPLE	Barometer ORANGE STRIPES	Seismograph GREEN STRIPES

PREVIEW

EARTHQUAKES

An earthquake is the strong, sudden movement of tectonic plates that results in shaking or trembling. Tectonic plates are large sections of the Earth's crust.

There are seven major plates that are slowly but constantly moving on the Earth's surface. Plate movements cause stress in the Earth's crust. Increased stress or pressure could cause the plates to suddenly move, causing an earthquake.

Any force that causes sudden movement of the Earth's crust causes shockwaves that shake and break the crust of the Earth. The waves of energy that travel through the Earth's crust are called seismic waves. Seismic waves carry energy released by the earthquake. Scientists can locate the epicenter of an earthquake by studying the speed of seismic waves.

The hypocenter or focus, is below the Earth's surface where the earthquake originates. The location on the surface of the Earth directly above the hypocenter is called the epicenter. The most powerful seismic waves are found at the epicenter.

A fault is an area of stress in the Earth or a crack in the Earth's surface. The surface where they plates slide is called the fault or fault plane. The most active fault zone in the United States is the San Andreas Fault.

Earthquakes are often preceded by and/or followed by smaller earthquakes. The ones that precede, or happen before the mainshock, are called foreshocks. The ones that happen after the mainshock are called aftershocks. Scientists can measure how powerful an earthquake is based on seismic waves. A seismograph is used to measure the size of the waves.

Earthquakes used to be reported on the Richter scale. Scientists would measure the strength or intensity of an earthquake based on the size of the waves. The Richter scale was invented by seismologist Charles Richter in 1935. Today, the scale is called the MW or Moment Magnitude Scale. This scale rates the total energy an earthquake

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