Name _____ Date _____ Class _____

Content Practice A Chapter 9.1 Review LESSON 1

Earthquakes

Directions: *Complete this table by writing each sentence under the correct heading.*

- Surface waves travel more slowly than other waves.
- Risk assessments help engineers design safer buildings.
- Blocks of rock move horizontally past each other.
- Movement occurs along faults.
- Seismic waves travel on and in Earth.
- Primary waves (P-waves) cause particles in the ground to move in a push-pull motion.
- Most damage occurs at the epicenter of an earthquake.
- Secondary waves (S-waves) are slower than P-waves.
- Rocks break and form new faults.
- Ground motion can be described by the Richter magnitude scale.
- There are about ten earthquakes per year with a magnitude greater than 7.0.
- Earthquakes can threaten people's lives and property.
- One block of rock is uplifted relative to the other.
- Rock deformation causes rock to break and move along a fault.

Cause and Location of Earthquakes	Properties of Earthquakes Used in Monitoring	Earthquake Risks
1.	6.	11.
2.	7.	12.
3.	8.	13.
4.	9.	
5.	10.	14.

Name _____ Date _____ Class _____

Key Concept Builder

LESSON 1

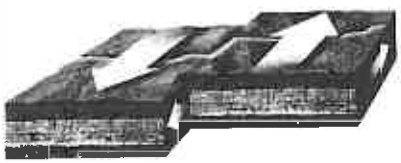
Earthquakes

Key Concept What is an earthquake?

Directions: *Identify each type of fault by writing* normal, reverse, *or* strike-slip *in the space provided.*

Types of Faults

1.



2.

3.

Directions: *On the line before each statement, write* T *if the statement is true or* F *if the statement is false. If the statement is false, change the underlined word(s) to make it true. Write your changes on the lines provided.*

_____ **4.** Earthquakes result when forces push <u>tectonic plates</u> along faults in Earth's lithosphere. _____

_____ **5.** The buildup and release of stress along <u>inactive</u> plate boundaries result in earthquakes. _____

_____ **6.** The most disastrous earthquakes occur along <u>divergent</u> plate boundaries.

_____

_____ **7.** The movement of rocks <u>in any direction</u> along a fault results in an earthquake.

_____

_____ **8.** A <u>normal</u> fault forms where forces cause rocks to slide horizontally.

_____

_____ **9.** <u>Reverse</u> faults form when forces pull rocks apart along a divergent plate boundary. _____

_____ **10.** A <u>strike-slip</u> fault occurs where two blocks of rock are pushed together causing one to move upward. _____

_____ **11.** The deepest earthquakes occur along <u>convergent</u> plate boundaries.

_____

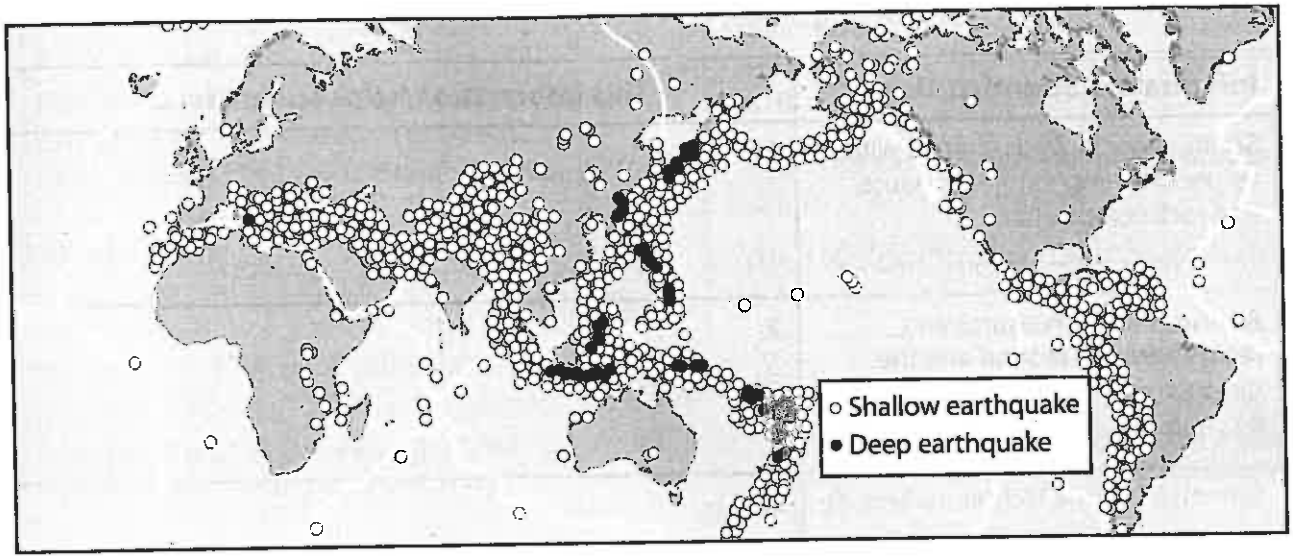
Name _____ Date _____ Class _____

Key Concept Builder

LESSON 1

Earthquakes

Key Concept Where do earthquakes occur?



Directions: *Refer to the map to help you circle the term in parentheses that correctly completes each sentence.*

Earthquakes occur in many places throughout the world. Though most earthquakes are **(1.)** (shallow/deep), some earthquakes occur **(2.)** (on the surface of/deep inside) Earth. Deep earthquakes occur along convergent boundaries where Earth's **(3.)** (tectonic plates/surface layers) collide. These earthquakes occur at depths **(4.)** (greater/less) than 100 km. When this happens, the denser oceanic plate sinks into the **(5.)** (mantle/core). These deep earthquakes are typically **(6.)** (less/more) destructive than earthquakes that occur along **(7.)** (divergent/convergent) plate boundaries because of the amount of **(8.)** (lava/energy) released when the plates collide. Earthquakes that occur along divergent plate boundaries are considered to be **(9.)** (shallow/deep) earthquakes. Here the Earth's tectonic plates **(10.)** (push together/pull apart). An example of a divergent plate boundary is the **(11.)** (mid-ocean/continental) ridge system.

The collision of Earth's tectonic plates can form large **(12.)** (coral reef/mountain) ranges, such as the Himalayas in Asia. Most earthquakes, however, do not occur in the middle of continents. Instead, they occur in **(13.)** (oceans/rivers) and along the **(14.)** (edges/forests) of continents. These areas have active plate boundaries where earthquakes result from the buildup and release of **(15.)** (vibrations/stress) as rock pushes against rock.

Name _____ Date _____ Class _____

Lesson Quiz A LESSON 1

Earthquakes

Multiple Choice

Directions: *On the line before each question or statement, write the letter of the correct answer.*

_____ **1.** Which seismic waves generally cause the most earthquake damage?
- **A.** surface
- **B.** primary
- **C.** secondary

_____ **2.** In triangulation, scientists locate earthquakes using data from _____ seismometers.
- **A.** two
- **B.** only one
- **C.** at least three

_____ **3.** The location directly above an earthquake's focus is its
- **A.** fault.
- **B.** plate.
- **C.** epicenter.

_____ **4.** A fault where two blocks of rock slide past each other is a
- **A.** reverse fault.
- **B.** normal fault.
- **C.** strike-slip fault.

Matching

Directions: *On the line before each definition, write the letter of the term that matches it correctly. Each term is used only once.*

_____ **5.** the point where an earthquake begins

_____ **6.** cause particles to move at right angles relative to the direction the wave travels

_____ **7.** a measure of earthquake magnitude

_____ **8.** a measure of damage done by an earthquake

_____ **9.** based partly on the earthquake history of an area

_____ **10.** first waves felt in an earthquake

- **A.** earthquake risk
- **B.** focus
- **C.** Mercalli scale
- **D.** P-waves
- **E.** Richter scale
- **F.** S-waves