**Chapter 1: Introducing Earth**

**Study Guide**

Name: Class: Date:

**Ch. 1.1 The Earth System**

1. What are the five parts that comprise Earth’s system?

1. Which of Earth’s spheres contains most of Earth’s mass?
2. What are the two main sources of energy that drives the Earth system?

b)

4. Know examples of constructive forces:

5. Know examples of destructive forces:

**Ch. 1.2 Earth’s Interior**

1. Geologists have two main types of evidence to learn about Earth’s interior. What are they? And, which is direct evidence and which is indirect evidence?

1. Oceanic crust: overall composition is similar to:
2. Continental crust: overall composition is similar to:
3. What is the correct order of Earth’s layers (include inner and outer core)?

1. Geologist group the crust and upper mantle into a single layer called:

1. Which of Earth’s layers is the thickest?
2. What comprises Earth’s inner core?
3. What is the outermost layer of Earth called?
4. What do scientists believe produce Earth’s magnetic field?

**Ch. 1.3 Convection and the Mantle**

1. What are the three means by which heat is transferred and describe each.

Be able to identify examples of each.

1. The Theory of Plate states that Earth’s plates move slowly in various directions due to the convection currents in the mantle.
2. The upper layer of Earth is broken into more than a dozen that move very slowly in various directions.
3. How does heat travel?

5. What causes the convection currents in the asthenosphere?

6. Understand the below convection current diagram of Earth’s mantle. (See page 21 diagram and labels.)

**A**

**B**

Which area is hotter? Top or bottom

Which area is cooler? Top or bottom

Which area has more energy? Top or bottom

Which area has less energy? Top or bottom

In which area is the molten rock more dense? Top or bottom

In which area is the molten rock less dense? Top or bottom

In which area is the molten rock going to rise? Top or bottom

In which area is the molten rock going to sink? Top or bottom

**Short Answer Questions**