Name: \_\_\_\_\_Key\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Pd: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Plate Tectonics Review

1. Complete the following information on the Three(3) Main Layers of the Earth

**Word Bank**: crust inner and outer core mantle lithosphere

asthenosphere oceanic continental

* 1. The **Mantle** is the second and thickest layer of the Earth. The upper two layers of this section affect plate tectonics the most.
  2. The **continental** crust makes up the continents and has a low density.
  3. The **crust** is the outermost and thinnest layer of the Earth. It is broken into two types: oceanic and continental.
  4. The **asthenosphere** is the second and more plastic layer of the mantle.
  5. The **oceanic** crust makes up the ocean floor and has a high density.
  6. The **inner and outer core** are the innermost and hottest layers of the Earth. These areas are composed of both molten and solid nickel and iron.
  7. The **lithosphere** is the top, most solid layer of the mantle. It is often included in the crust.

1. The Earth’s crust is made up of about \_\_\_\_\_\_\_\_\_\_\_\_ different plates that move due to convection of plastic rock in the mantle.
   1. 10
   2. **20**
   3. 30
2. This man theorized that the Earth’s continents were once together and slowly drifted apart over 250 million years; a process known as continental drift.
   1. Harry Hess
   2. James Hutton
   3. **Alfred Wegener**
3. Explain Alfred Wegener’s theory of continental drift using the following word bank:

***Word Bank:*** Pangaea jigsaw puzzle glaciers supercontinent Laurasia Gondwanaland fossils continental drift

**Alfred Wegener came up with the theory of continental drift. He theorized that the Earth’s continents were once all together as a supercontinent called Pangaea. He believed the supercontinent split into two smaller continents called Laurasia and Gondwanaland. He said that these continents continued to move and split until we have the continents we know today. His evidence was that the continents seem to fit together like a jigsaw puzzle. He said that the continents had to once be together because he noticed that certain areas on earth that are now deserts had evidence of glaciers and coal and certain fossils were found on opposite sides of the ocean.**

1. Harry Hess determined the ocean floor moves like what object?
   1. Escalator
   2. **Conveyer belt**
   3. Jigsaw puzzle
2. According to Harry Hess, the plates of the Earth move apart at **ridges** and come together at **trenches**.
3. What is Harry Hess’s theory on plate tectonics called? **Seafloor spreading**
4. Oceanic crust **subducts** under the mantle because it is more dense than the continental crust.
5. The ocean crust is constantly pushing on the continental plate.
   1. **True**
   2. False
6. What is the location where two plates meet called? **plate boundaries**
7. There are two main types of plate boundaries. Name them
   1. **Divergent Boundary**
   2. **Convergent Boundary**
8. What is the name for an area where two plates come together? **Convergent Boundary**
9. What is the name for an area where two plates move apart? **Divergent boundary**
10. Match the type of convergent plate boundary to the item it creates
    1. Continental – Oceanic \_\_\_**C**\_\_\_\_\_ creates mountains
    2. Oceanic – Oceanic \_\_\_**B**\_\_\_\_\_ creates island arcs
    3. Continental – Continental \_\_\_**A**\_\_\_\_\_ creates volcanoes
11. Explain what a transform boundary is.

**A transform boundary is an area where two plates meet and move laterally (slide past one another.)**