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| Name: | Class: | Date: |

“9.1” The Theory of Plate Tectonics:

The Earth’s crust and upper mantel, called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, is broken into pieces called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

The theory of plate tectonics proposes that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the Earth’s \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ with each other.

In this way, Earth’s surface is put together like a giant 3D puzzle. The places where the pieces meet each other are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and there are three different kinds depending on how the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ with each other.

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Convergent Boundaries:

At a convergent boundary, plates move \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ each other and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. This occurs in three different ways depending on \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. When \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ plates converge, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ plate will sink under the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ plate. These points are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and they create deep-sea \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. When \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ plates converge, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

These types of convergent boundaries can also produce \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_­­­­­­­\_\_\_\_\_\_\_\_\_\_\_.

Both convergent boundaries involving \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ mantle result in the formation of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ as the newly formed \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is forced \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. When \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ plate converge, the crusts \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ upwards together and form \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. At these boundaries there are no \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ because there is little \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. However, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are common at these types of boundaries.

Divergent Boundaries:

At divergent boundaries, the plates \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_from each other. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ occurs at divergent boundaries.

Transform Boundaries:

At a transform boundary, plates \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. They can do this in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or one can be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ than the other.

Measuring Plate Movement:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are evidence of plate movement. Scientists now use \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ technology to measure the movement of the Earth’s plates. In this way \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ on the ground are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the sky to track Earth’s movement.