The Earth is made up of 4 layers.

The crust is the layer of rock that forms the Earth’s outer surface. This layer is the thinnest of the four layers. It is broken into many pieces called plates.

The mantle is the layer of very hot, solid material between Earth’s crust and core. It is the largest layer of the Earth. The movement of the mantle is what causes the Earth’s plates to move.

The outer core is so hot that the metals in it are liquids. It is the only liquid layer. This layer is responsible for the Earth’s magnetic field. This is an invisible shield around the Earth that protects it from dangerous things, like radiation from the sun.

The inner core is a solid ball made up mainly of iron. Although it is extremely hot, it isn’t liquid because of the pressure and weight caused by the other three layers. This is the hottest part of the Earth, almost as hot as the surface of the sun.

The pieces of Earth’s surface that is moving is referred to as the lithosphere, which is made up of the crust and mantle. The asthenosphere is the upper layer of the earth’s mantle, below the lithosphere, in which there is relatively low resistance and believed to be much hotter and more fluid. This is the part of the mantle that flows and moves the plates of the Earth.

The different pieces of the lithosphere that move together are called tectonic plates. There are two types of tectonic plates, oceanic and continental. Oceanic crust is found under the ocean. It is thinner than continental crust and is continuously being created at oceanic ridges. Continental crust is found under the land (continents) of the earth.

Plate tectonics is the theory that the pieces of Earth’s lithosphere are in constant motion. Between tectonic plates, there are three prominent types of boundaries where movement happens most frequently.

One type of boundary is the convergent boundaries. It is where two plates are pushed up against each other. Occasionally, one plate is pushed underneath the other one, which is called subduction. At this type of boundary, volcanoes or mountains can be formed. Volcanoes form at these boundaries when one plate is heavier than the other. When one gets pushed on top of the other, it melts to form a volcano.

Another type is called divergent boundaries. At this type of boundary, the two plates are being pulled away from each other. This created a boundary between the two plates, referred to as a rift. This type of boundary is where new land is formed. This happens when molten rock comes to the surface and cools.

When two tectonic plates move across or past each other, is called a transform boundary. This is also called a fault, and it often has earthquake activity. Earthquakes happen two tectonic plates are moving past each other, and they get stuck. When they suddenly get unstuck, the earth shakes from the movement.
What are some consequences of the land on Earth moving?

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What are the layers that make up earth?

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Which layer is liquid?

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The movement in which layer causes plates to move?

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In which layer is the hottest part of the Earth?

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What are the different pieces of the lithosphere that move together called?

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What are the two types of tectonic plates?

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Define plate tectonics

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In which type of boundary are volcanoes and mountains formed?

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In which type of boundary are the two plates being pulled away from each other?

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Define subduction

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In which type of boundary is there earthquake activity?

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Define fault

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Why do you think it is important to study tectonic plates?

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________________________________________________________________________
Match.

- convergent boundary
- divergent boundary
- ridge
- subduction
- lithosphere
- asthenosphere
- transform boundary

- convergent boundary
- divergent boundary