

## Tectonic Plates and Earthquakes Note-taking Guide: Answer Key

strike-slip, boundaries, combination, Borah Peak, tsunamis, collide, directions. pushing, oblique-slip, earthquake, pressure, drift, magma, San Andreas, warning, crust, stretch, water, split, upward, dip-slip, faults, occurs, landscape

Some scientists believe that an <u>earthquake</u> could have caused the land in this area to <u>stretch</u> up and form these mountains.

Earthquakes can happen without <u>warning</u>. They can change a <u>landscape</u> completely.

Earthquakes may cause the land to split into many pieces.

Earth's <u>crust</u> is made of many small sections called tectonic plates. Tectonic plates float over a layer of molten <u>magma</u>.

Sometimes, the <u>boundaries</u> between these plates appear as cracks on the Earth's surface, known as faults.

Most of the time tectonic plates just <u>drift</u> by each other. But they can also <u>collide</u> or move into each other.

That is when an earthquake <u>occurs</u>. There are different types of <u>faults</u> that cause earthquakes.

For example, at a <u>strike-slip</u> fault, an earthquake occurs when two tectonic plates block each other's movements.



As tectonic plates press against each other, the <u>pressure</u> increases until the plates break free from their locked position.

When this happens, the land shifts suddenly in different <u>directions</u> on either side of the fault.

The San Andreas fault is an example of a strike-slip fault.

An earthquake occurs at a <u>dip-slip</u> fault when the tectonic plates push against one another, with one plate moving under the other.

The resulting earthquake causes land on one side of the fault to go up, while <u>pushing</u> down land on the other side.

At an <u>oblique-slip</u> fault, an earthquake occurs when tectonic plates push against each other and move both <u>upward</u> and sideways.

This movement is a <u>combination</u> of the dip-slip and strike-slip earthquakes. This fault near <u>Borah Peak</u> in Idaho is an example of an oblique-slip fault.

Earthquakes don't just happen on land; they can occur under <u>water</u> too. When an earthquake occurs under water, it can set off huge waves called <u>tsunamis</u>.