

Moving Earth Pieces

Read how tectonic plates move and change Earth's crust.

5.8.b "plate tectonics describe movement of the crust;"

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline each phrase that tells how tectonic plates move. Then number the three boundary types in the order they appear, 1, 2, and 3.

Crust on the Move

- ① Earth's crust is broken into huge pieces called tectonic plates. These plates fit together like parts of a puzzle, but they move very slowly. Beneath them, hot rock in the mantle can flow over long periods. This motion helps push and pull plates. A plate may carry land, ocean floor, or both as it travels.
- ② At a divergent boundary, two plates move apart. Magma can rise into the opening and cool, making new crust. At a convergent boundary, plates move toward each other. One plate can sink below another, or the edges can crumple upward. These movements can form mountains, trenches, volcanoes, and earthquakes. Changes happen slowly, although earthquakes can release energy suddenly.
- ③ At a transform boundary, plates slide past each other side by side. Their rough edges may stick for a time. Stress builds as the plates keep trying to move. When the edges suddenly slip, the ground can shake in an earthquake. Plate motion is usually only a few centimeters each year, yet it reshapes Earth's surface over millions of years.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 What helps push and pull tectonic plates?

2 How do plates move at a divergent boundary and at a convergent boundary?

3 What can happen when magma rises into an opening at a divergent boundary?

4 Explain how plate motion can cause an earthquake at a transform boundary.

3 YOUR TURN _____ Your own words

Choose two different boundary types from the passage. In each panel, draw the plates with arrows showing their movement, then write one sentence explaining what can happen there.

PART 1 • READ AND MARK

Underline each phrase that tells how tectonic plates move. Then number the three boundary types in the order they appear, 1, 2, and 3. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	What helps push and pull tectonic plates?	The slow flow of hot rock in the mantle helps push and pull tectonic plates.
2	How do plates move at a divergent boundary and at a convergent boundary?	At a divergent boundary, plates move apart. At a convergent boundary, plates move toward each other.
3	What can happen when magma rises into an opening at a divergent boundary?	The magma can cool and make new crust.
4	Explain how plate motion can cause an earthquake at a transform boundary.	Rough plate edges can stick while the plates keep trying to slide past each other. Stress builds, and when the edges suddenly slip, the ground can shake.

PART 3 • YOUR TURN (SAMPLE ANSWER)

Panel 1: Divergent boundary. Arrows point away from each other. Magma can cool between the plates and make new crust. Panel 2: Transform boundary. Arrows point in opposite directions along the boundary. Stuck edges can suddenly slip and cause an earthquake.

Accept drawings with correctly directed arrows and accurate labels for any two different boundary types. Sentences should connect the plate movement to a result named in the passage.