

TAG - Plate Tectonics Learning Targets

Use the table below to keep track of your learning of each of the sub-targets. Place a check mark in the appropriate column. If you do not place a check mark in the “M” column, you should determine what the necessary next step should be to “master” that target (re-read the book/class notes, see the teacher, go to the Point, etc.). ALL sub-targets should have an “X” in the “M” column PRIOR to you taking the quiz/test!

M - Indicates that you have “**m**astered” the learning target.

P - Indicates that you have “**p**artially **m**astered” the learning target, but need to PRACTICE to work toward complete mastery.

NY - Indicates “**n**ot **y**et.” You have not yet addressed the learning target.

You can use the notes section below to write down questions you have, or ideas to help you remember the concepts above.

General Topics: Plate Tectonics, Continental Drift, Seafloor spreading, Plate boundaries, faults, earthquakes

M	P	NY	Learning Sub-Targets
			1. I can explain, diagram and label the three types of boundaries. (convergent, divergent and transverse) (9b)
			2. I can explain why the type of geographic features develop at plate boundaries. (mountains, subduction trenches, rifts / ridges and volcanoes) (9b)
			3. I can explain, draw and label the different type of faults that form along the above boundaries (hanging wall, foot wall, normal, reverse and strike slip faults) (9b)
			4. I understand how earthquakes form. I can compare and contrast the focus and the epicenter. (9b)
			5. I can use triangulation from seismograph data to determine the location of the epicenter. I can also analyze seismograph data to calculate the magnitude of an earthquake and its distance from seismograph station.
			6. I can explain the differences between the three types of seismic waves. (P-waves, S-waves and surface waves) I know their varying relative speeds and levels of destruction.
			7. I know which of the above waves are transverse or compressional and can explain how I know this wave is mechanical. (needs a medium to transfer the energy)
			8. I can reason why an earthquake off the coast can cause a tsunami and the types of faults associated with a tsunami.
			9. I can articulate what a convection current is and how this form of heat transfer is believed to be the driving force of plate movement from the mantle).
			10. I can explain the evidence that supports the theory of Continental drift (Alfred Wegener) and Seafloor spreading (Harry Hess). I understand that the combination of these two concepts evolved into the theory of Plate Tectonics. (9a, 3d)

Essential Questions:

How and why has the Earth's continents change position over time?

What evidence support Plate Tectonic activity?

How is Continental Drift and Seafloor Spreading connect to Plate Tectonics?

Explain Henry Hess' and Alfred Wegener's contributions?

Explain how certain features exist along specific plate boundaries.

Notes: