

HO 1.3 Plate Tectonics

Plate Tectonics Unit

This unit includes the following themes: Origin of the Earth, Big Bang, Structure of the Earth, Theory of Plate Tectonics, Convection Theory, Seafloor Spreading, Magnetic Reversal, Divergence, Convergence, Volcanism, Folding and Faulting

After a brief overview lecture, the class will break into groups and prepare presentations and models to illustrate the main elements outlined above. We will set out the parameters as a class. Students must work cooperatively and time effectively and bring their own research materials or digital devices. Sample resources will be provided. Assessment will be discussed cooperatively as a class.

Iceland Volcanism

[Discovery Hawaii Atlas](#) (Watch as a class for notes and discussion)

[Plate Tectonics Learner.org](#) (plays only in Explorer, not Chrome)(Notes and discussion)

[Plate Tectonics in selected regions. animation](#)

[Lava Flow Lab](#) This lab requires computer access

At the end of this unit, each student should demonstrate the following:

- An understanding of the theories of how the Earth and the solar system formed;
- How the Earth is structured;
- What mechanisms are involved in creating and destroying plates;
- Knowledge of evidence to support the plate tectonics theories;
- Volcanism and knowledge about different volcanic activities, their negative and positive effects;
- Processes of folding and faulting

Resources for group assignment

[National Geographic: Plate Tectonics](#)

[Rift Valley](#)

[Earth Magnetic Field Reversal](#)

[Plate Tectonics Interactive](#)

[Volcano Activities](#)

[Yellowstone](#)

[Igneous Rocks](#)

[Virtual Stromboli](#)

[Structural Geology: folds and faults](#)

[Folds](#)

Individual Assignment

[Global Plate tectonics and volcanism](#)

[Tectonics](#)