Students Explore the Mechanics of Earthquakes Using a Simple Classroom Model

The earthquake machine is an inexpensive model that allows students to visualize the inputs and outputs of a fault system and explore stick-slip fault behavior.

ACTIVITY 1
Defining an Earthquake

In this activity, students begin by documenting their own definition of an earthquake. Using the earthquake machine model, small groups of students compare the behavior of the model to their definitions. Based on this exploration, students work together to refine their definitions to accommodate what they have observed.

ACTIVITY 2
Developing Arguments About Earthquake Occurrence

This activity uses the earthquake machine to investigate the behavior of fault systems. Groups of students are presented with a claim about earthquakes. Using the earthquake machine, the groups design an investigation to collect data to either refute or support the claim. They use the information collected to construct an argument regarding the claim. Students then present their work to their knowledgeable peers for review.