

## **Subduction Zone Earthquakes Model Templates**

This file contains the templates for assembling the plate kinematics model.

Page 1 is this page with instructions and notes.

Page 2 represents the overriding lithospheric plate and should be printed onto a transparent “overhead” sheet.

Page 3 is the template for the subducting plate, and is printed on legal-size (8.5” x 13”) paper.

The jagged star-like symbols represent earthquake foci, and symbol size illustrates earthquake magnitude. Three areas with the bold, diagonal lines are the slots representing the two trenches and the mid-ocean ridge, and need to be cut out in advance of using the models in class. The stippled pattern represents the upper mantle beneath the mobile plates.

Stationary tectonics plates are labeled. Areas with no pattern on the edges are reserved for student annotations (e.g. regarding seafloor age, depth, or relative motion). The base is reusable when printed on cardstock and laminated.

To assemble, staple the transparent overhead sheet to the paper so the edge of the transparency is even with the line marked “trench”. The staples should be placed as close to the edge of the transparency as possible to allow the underlying paper to fall away and simulate the subducting plate.

## Continental lithosphere (over-riding plate)

Mark locations of earthquake epicenters and estimate depth of foci

Oceanic lithosphere

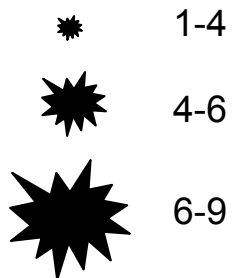


Subduction zone



trench

Earthquake foci & magnitude



100 km

200 km

300 km

400 km

500 km

600 km

Depth

