**Earth Science Activities**

*Complete each of the activities below. You will have three days in class. Anything you have left will be homework.*

Structure of Earth Activity: Compose a model of the earth using clay. Use the percentages from your notes and a scale to determine the size of each layer. Cut it in half with a plastic knife when you finish.

Geologic Time Scale Activity: Construct a scale model of Earth’s geologic time using a clock (hours, minutes, seconds) or a football field (yards, feet, inches). If you have other ideas about what to scale it to, ask before you start. Write where each of the following begins: Precambrian, Paleozoic, Mesozoic, Cenozoic, Devonian, Triassic, Cretaceous, and Quarternary. Indicate where each of the following events occurs: first reptiles, first humans, dinosaurs extinct, life invades land, first mammals, Pangea forms. Note: You will actually draw a clock or a football field to write all the events on. Be sure to include your scale on each.

Plate Tectonics Activity: Use the provided pages to create a flipbook showing the breakup of Pangaea and the movement of Earth’s landmasses over the past 190 million years. Starting with frame 20 and working backwards, identify and color each landmass according to the list below. After coloring, cut out each frame, stack them from 1 (top) to 20 (bottom), align the frames, and staple the stack on the left.

Land Mass Color

North and South America Yellow

Australia Tan

India Orange

Africa Green

Europe and Asia Red

Antarctica Blue

Greenland Purple

Volcano/Earthquake Activity: Complete the attached mapping activity and questions.

Earthquake Activity: Go to <http://www.sciencecourseware.org/virtualearthquake/> and follow the instructions to complete the *VirtualEarthquake* application. Read all the information about the waves and directions carefully. You will have the option to get a certificate as a “Virtual Seismologist”. Be sure to print the certificate or email a copy to me. This will be the proof that you completed the assignment.

Rock Cycle Activity: Create a rock cycle diagram using the provided arrows, processes and rock types. Write a few paragraphs detailing the path of one sediment through the rock cycle. There are many paths you can take, but be sure to include each rock type and each process at least once. Describe what would happen to the sediment during each process and what characteristics it would have as each rock type.