LAB: MODELING FAULTS Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_P#\_\_

Purpose: In Chapter 19.1 you read about three types of faults. Now it is time to see and feels how they differ from each other, and how they affect the landscape when an earthquake occurs.

**Part I – Normal Fault**

Locate points A and B on the model.

Slide the pieces so that A is next to B.

Draw a side-view of the rock layers in your comp book and label it “Normal Fault.”

These faults are very common in the Basin & Range of Nevada and in the East African Rift, where the lithosphere is being stretched.

1. Did B move uphill or downhill compared to A?

2. Are rock layers X, Y, Z still continuous?

3. Is this fault caused by tension, compression, or shearing?

4. What will happen to the river?

**Part II – Reverse Fault**

Locate points C and D on the model.

Slide the pieces so that C is next to D.

Draw a side-view of the rock layers in your comp book and label it “Reverse Fault.”

These faults are common in the Himalayas and the Cascades, where plates are converging together.

1. Did C move uphill or downhill compared to D?

2. Are rock layers X,Y,Z still continuous?

3. Is this fault caused by tension, compression, or shearing?

4. What will happen to the river?

5. What will happen to the railroad tracks?

**Part III – Strike-Slip Fault**

Locate points F and G on the model.

Slide the pieces so that F is next to G.

Draw a top-view of the landscape in your comp book and label it “Strike-Slip Fault.”

Strike-Slip faults are classified as “left lateral” or “right lateral,” depending on which way the rocks moved. Look across the fault and see whether objects have moved left or right on the far side. The San Andreas Fault is a right-lateral strike-slip fault.

1. Did F move left or right compared to G?

2. Did G move left or right compared to F?

3. Are rock layers X,Y,Z still continuous?

4. Is this fault caused by tension, compression, or shearing?

5. What will happen to the river?

6. What will happen to the railroad tracks?