

# Modeling Rain on Land Procedure

## SETUP

**Gather Materials:** Materials Manager brings materials to group area (soil tub, bucket, large and small pads, trowel and graduated cylinder)

Water Filler fills rain jar (with holes in lid) with 1000 milliliter (ml) of water.

### Set up the materials:

- Place large pad on table with slick plastic side down (absorbent side up) and put tub on the large pad.
- Locate the drain hole (with a plug in it) and move the tub so the drain hole sticks over the edge of the table.
- Place the small pad on the floor with the plastic side down and put the bucket on the pad under the drain hole so that the bucket will catch any water that comes out of the drain hole.

### Prep the tub:

- Shape the soil in the tub to create a block of soil between the line and the edge that does not have a hole (20 centimeters long x 5 cm deep).
- Remove the drain plug from the tub and place it on the table.

**All:** Before adding water, sketch how the soil looks in your science notebook.

## PROCEDURE

1. **Make it rain.**
  - a. Bucket holder holds the bucket under the tub's drain hole.
  - b. First water shaker holds the water jar upside down over the soil and shakes the jar to make it rain on the soil (don't squeeze). Move it around so all areas of the soil block get equal amounts of water.
  - c. STOP shaking when the water is about halfway gone from the jar.
  - d. Plug the hole and set down bucket on pad.
2. **All:** Sketch how the soil looks in a "during rain" box.
3. **Finish the rain**
  - a. Bucket holder holds the bucket under the tub's drain hole.
  - b. Second water shaker shakes the remainder of water onto the soil.
  - c. When done, set down bucket on pad in location where water can drip and empty any bits of water left in rain jar.

**All:** Sketch how the soil looks in an "after rain" box and use your rain jar to record the amount of water you collected in the bucket.

## GROUP ROLES

1. **Materials Manager**  
Brings materials
2. **Water Filler**  
Fills water bottle
3. **Bucket Holder**  
Holds bucket under drain hole
4. **Water Shaker #1**  
Shakes first half of water evenly across tub.
5. **Water Shaker #2**  
Shakes 2<sup>nd</sup> half of water.

