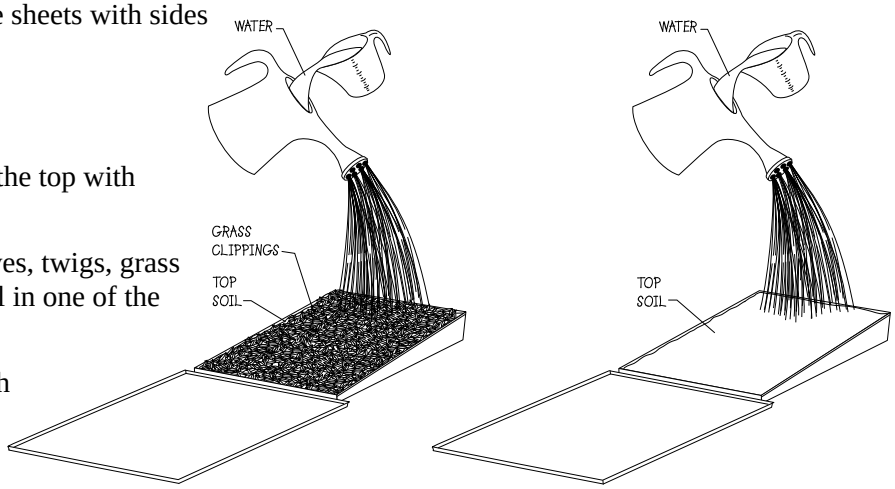
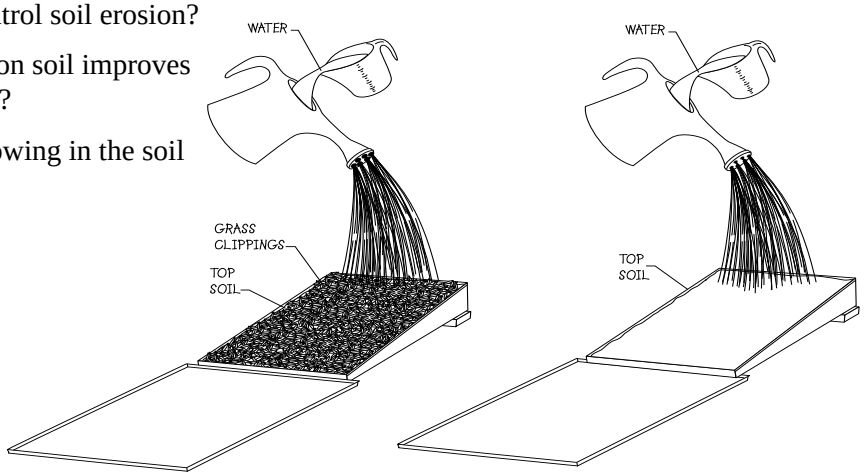
Bare or Covered?

A comparison of 1982 and 1992 soil losses shows 900 million tons more soil was lost in 1982 than in 1992. This is enough top soil to fill a convoy of dump trucks, placed 95 across and stretching from Los Angeles to New York.

Equipment/Materials

two paint roller pans
8 cups of water
two bricks
water
soil to fill each pan
3 cups of leaves, twigs, grass clippings, or mulch
two cookie sheets with sides



Procedure

1. Fill each of the paint roller pans to the top with soil.
2. Put a 1/2-inch to 1-inch layer of leaves, twigs, grass clipping, or mulch on top of the soil in one of the pans.
3. Put a cookie sheet at the end of each paint roller pan to catch the water runoff.
4. Pour 2 cups of water over each of the pans allowing the water to flow downhill and collect in the cookie sheet. Which water runoff is cleaner? Which pan allowed the water to run off faster?
5. Put a brick under each of the paint roller pans to increase the slope. Repeat Step 4.
6. Do you think that vegetation helps control soil erosion?
7. Do you think that vegetation growing on soil improves water quality in our rivers and streams?
8. Do you think that plants with roots growing in the soil would reduce soil erosion?