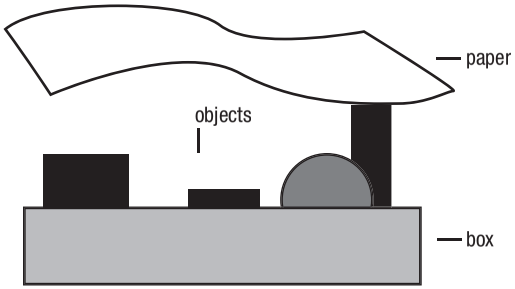
WHAT IS A WATERSHED?

Part 1

Build Your Watershed Model

1. Place newspaper under the tray.
2. Arrange a tall object near one edge of the tray and arrange the shorter objects toward the center of the tray.
3. Crumple up a piece of butcher paper. Be careful not to rip any holes in the paper.
4. Carefully cover the tall and short objects with the sheet of butcher paper, pressing the paper down so that it looks like tall and short hills. Use pieces of tape to keep the paper from lifting up from the tray.



side view of box w/ objects

Draw Your Elevation Map

5. On the model, mark high areas with an H and low areas with an L.
6. On the next page, draw an elevation map of your model. Sketch a bird's eye view of the high and low areas (as if you were looking down at your model). Mark the high areas with Hs and the low areas with Ls.

Note: Each member of your group should draw his or her own elevation map. Chose one member to draw the map on a piece of transparency film.

Make Your Prediction

7. On the next page, predict how the water will flow over the model if you spray water on it. Include where water will flow and accumulate. On your elevation map, draw arrows to show how the river will flow and draw circles to indicate where the water accumulates.

Observe Your Model

8. Hold the spray bottle about 5 inches from your model and spray for several minutes until you get a continual flow of water. Take turns spraying your model. Alternate where each person sprays.
9. Return spray bottles to the teacher.
10. Using a different color pen, draw on your map how the water flows over your model and where the water accumulates. Note the pattern of how the water flows over your model, how smaller rivers join to form larger rivers and how rivers flow into lakes.

Note: Each member of your group should draw his or her observations. One member should draw on the transparency film.

Part 2

Elevation and Observation Map

Use space provided to make an elevation map and observation map of your watershed.

Elevation

Observation

1. Explain how the water flowed over your model (what patterns occurred)? What caused the water to flow the way it did?

2. Did your observations agree or disagree with your predictions? How were they similar or different?