Crumpled Paper Watershed Instructions

Materials

- Large piece of art paper (heavyweight), butcher paper, or kraft paper
- Black permanent marker
- Blue wet-erase marker
- Wash bottle or spray bottle filled with water

Procedure

1. Crumple up the piece of paper and then spread it out to create a mountain range with ridges (high points) and valleys (low points). **HINT!** Place objects underneath to help maintain the shape of the landforms and use masking tape to hold the model in place.

2. This is a model of the landforms on the surface of the Earth. Imagine what will happen when precipitation falls on this land. Find a ridge and define this as a divide that separates the flow of water into different paths across the model. Use the black permanent marker to mark the divides in your crumpled paper model.

3. Look over the land model and identify the valleys where water will likely flow in streams and low areas where lakes may form. Use a blue wet erase marker to mark these areas (valleys and low areas). Notice where divides separate watersheds and name the different areas in the model (e.g., California Condor Valley, Brook Trout Creek, Green River, Loch Ness Lake) to help identify the various watersheds.

4. Spray or drip water over the model to show how the divides separate the watersheds in the model and how “nested” watersheds combine to form larger watersheds.
Important Vocabulary to Note

The vocabulary list below includes the main parts of a watershed. Look for and identify any of these features in the crumpled paper watershed if you can.

**Watershed:** a system defined by the area of land over which all water drains downhill through a series of streams and rivers to a common outlet (river, lake, bay or ocean)

**Divide:** the boundary of a watershed designated by the highest points (mountains, hills, or ridges) between watersheds where runoff would flow downhill in opposite directions into different watersheds

**Headwaters:** the small streams at the top of a watershed where the rivers begin, often called the source

**Tributary:** any stream or river that flows into another stream or river at a confluence

**Confluence:** the place where two streams or rivers flow together and become a larger stream or river

**Floodplain:** an area of low-lying ground next to a river, formed mainly of river sediments and subject to flooding

**Mouth:** the end of a river where the water enters a lake, bay, or ocean