Build Your Own Watershed Model

Materials

- Deep pan such as a roasting pan or plastic storage tub
- Aluminum foil
- Water-resistant tape
- Things to make different levels and can get wet like Styrofoam, cups, bowls, cans, etc.
- Powder drink mix, cocoa powder, sprinkles, salt, pepper, oil, soy sauce, etc.
- Models like houses, cars, people and animals to model a neighborhood or city (optional)
- Spray bottle filled with water
- Permanent marker
- Sponge, felt, clay
- Tarp (optional)

Directions

1. Find a place outside or cover an area inside with the tarp to protect your surroundings.
2. Take your pan or tub and place it on the ground or tarp.
3. Gather your items to make different levels. Arrange the items in pan or tub to look like different levels of a habitat, like hills (topography). Make sure to arrange the items like they are around a river, lake or pond.
4. Carefully cover with foil, making sure to mold the foil to the different levels of your new model. You may need to use more than one sheet of foil.
5. Using the water-resistant tape, tape down the sides and any areas in the model that may need it, like a hole or open seam.
6. If you choose, use your model houses or cars to set up a neighborhood or city.
7. With the marker, draw where you think the water will flow or pool on your watershed model.
8. Think about what kind of pollution can be found in an area like the one you created. Sprinkle your different items to represent that pollution.
9. Using your spray bottle, make it rain.
10. Observe what happens.
11. Using other materials, like the sponge (cut it up if you need to) and felt, how could you alter your habitat to make sure less pollution gets into the water?
   This mimics what happens when there are habitats like swamps or wetlands near a river or when water-loving plants are planted in an area of a yard that floods.

Key Words

Groundwater: water that is found under the ground in soil, rocks, etc.
Habitat: the place where a particular type of animal or plant is normally found.
Pollution: substances that make air, water or soil dirty.
River: a natural flow of water that continues in a long line across land to the sea.
Stream: a small, narrow river.
Tributary: a river or stream that flows into a larger river or a lake.
Watershed: a line of high land where streams on one side flow into one river, and streams on the other side flow into a different river.
Water Table: the level at and below which water is found in the ground.

All definitions taken from the Oxford English Dictionary