Slow the Flow Erosion Experiment

Erosion is the wearing away of land by natural forces. Even though erosion is a natural process, it can be increased or decreased by human activity. Human-made structures such as roads and buildings increase the speed and power of water as it flows over the land. How does this fast moving water affect the land and local waterways?

Let's do an experiment to find out.

You will need:

- 2 jars with tight lids
- 2 small bowls
- 2 candy-coated chocolate pieces
- 2 soft candies like mints
- 2 pieces of hard candy, colored
- 2 cups of water

Instructions:

1. Pour 1 cup of water into each jar.
2. Add 1 piece of each candy type to both jars. The candy represents the soil and rocks that make up our hills and river banks.
3. Put the lids on the jars and make sure they are closed tightly. One jar is your test jar, the other is a control jar.
4. Shake the test jar for about 2 minutes, taking turns with a partner if you get tired. This represents fast moving water.
5. Remove the candy from both jars and place each jar's candy into different bowls. Observe the water in both jars. The control jar now represents a body of water under natural conditions. The test jar now represents a body of water near a community where human activities have increased storm water runoff.

Conclusion:

Did you notice how the candy in the control jar didn't change much, but the candy in the test jar is much smaller? Does the water in the test jar look a little cloudy? The environment reacts similarly when fast moving storm water is in action, resulting in erosion. Storm water mixes with soil on the ground, wearing it away as it rushes down hills and carries the mud, called sediment, into our waterways. Sediment pollution is harmful to fish, wildlife and our community.

To reduce the negative effects of erosion, we need to slow the flow of storm water runoff. Planting vegetation like trees, shrubs, flowers and grass helps! Plant roots absorb water and hold soil in place, preventing sediment from entering our streams and rivers.

What can you do to help slow the flow of storm water runoff and prevent erosion?

Managing Northern Kentucky's Wastewater and Storm Water
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