

Water Flow

SOLs Covered: 3.1, 3.6, 3.7, 3.9

Approx. Time: 20- 45 min

Objectives:

- Students will predict and investigate how water moves in different soil and topography.
- Students will use the scientific process to conduct an experiment with water flow.

Materials:

- Observation Logs
- Cups of water per child or small group
- Trowels or spoons (optional)

Activity:

1. *Brainstorm* ways that water moves when it falls to the ground. Record the ideas. *Discuss* how to investigate these ideas.
2. *Visit* the courtyard. Look for signs of water or past water flow. Discuss what the water did there when it last rained. Encourage them to consider water in the pond, any signs of water that flowed down the hill...
3. Each child or group picks a spot- be sure some are on flat land, hill, mulched area...
4. Each child or group *predicts* "Imagine rain falls on your spot. What do you think it will do?" Record predictions.
5. *Experiment*. "Pour a cup of water on your spot. Watch closely what it does. Can you still see water? *Record* your observations. Was your prediction correct?" Share some findings with the group. *Draw conclusions* about why the water did what it did.
6. *Discuss* 3 things water can do when it falls to the ground: soak in, flow downhill, pool up. Ask for ideas where each would happen in the courtyard.
7. *Test*: "How could you change the way water moves in your spot?" Can you change a small area and then pour water to test your experiment. I.e; add to or remove mulch from an area. Dig a small hole to keep water pooled up. Remember not to disturb the courtyard too much.
8. Discuss the importance of soil and natural mulch in preventing erosion.

Extension:

Visit other spots in the schoolyard.

1. Repeat the activity above in new areas. Or-
2. Students pick a spot. When you call "rain" they squat if the water would soak in; roll their arms if the water would run off; and make a big circle with their arms if the water would pool up.