Pollution Cleanup Challenge

In this hands-on challenge, students will create a polluted water sample and attempt to clean it using different materials, learning about the challenges of water treatment and the importance of keeping water clean.

INSTRUCTIONS

STEP 1: Pour oil into the water to simulate an oil spill. Add small plastic pieces, food scraps, and dish soap to create a polluted sample. Observe how the different pollutants interact with the water.

STEP 2: Assign students different cleanup materials (sponges, cotton balls, coffee filters, tongs). Have them attempt to remove as much pollution as possible.

SUPPLIES

Large container of water
Cooking oil
Small bits of plastic
Food scraps
Dish soap
Sponges, cotton balls, coffee filters
Tongs or tweezers
Measuring cup
Recording sheet

STEP 3: Use measuring cups to track how much clean water remains after the cleanup process. Observe and record.

Extension Activities & Real-World Connections:

- **Research Real Oil Spills –** Look up famous oil spills (e.g., Deepwater Horizon) and discuss the impact on marine life.
- **Microplastics in Water –** Discuss how tiny plastic pieces harm wildlife and what we can do to reduce plastic waste.
- **Create a Water Conservation Poster –** Have students design posters encouraging others to protect and conserve clean water.
- **Community Cleanup Challenge –** Organize a local cleanup of a nearby pond, river, or beach to see pollution firsthand.

Pollution Cleanup Observations

Use this worksheet to process and evaluate your work.

TOOLS	EFFECTIVENESS 1-5	WHAT IT REMOVED

Which pollutants were the easiest to remove? Which were the hardest?

How does oil behave differently from plastic in the water?

What are the real-world effects of pollution in oceans, rivers, and lakes?

What steps can we take to reduce water pollution in daily life?