

How to Clean Up an Oil Spill

Overview:

This lesson helps students think about what it means to be a good citizen when dealing with environmental disasters. They will apply critical thinking skills to a real-life situation and learn what they can do to be good citizens as they tackle an oil spill in their classroom.

Materials:

- Oil Spill Fact Sheet
- Tin foil baking pans (two per group of 5 students)
- Water
- Vegetable oil mixed with red food coloring. It's best to do this beforehand. Put the oil and food coloring in a squeeze-bottle and shake vigorously until mixed well.
- Five small toys per group
- Various cleaning materials, you may include: baking soda, dish-washing liquid, hand-soap, plastic cups, plastic spoons, paper towels, oven cleaning pads, toothbrushes, etc.
- Goggles and plastic gloves for each student
- Bin-liners to protect clothing (worn as smocks by students)

Handouts:

- [Oil Spill Fact Sheet](#)

Procedure:

1. Ask the students what they know about oil spills. (Use the Fact Sheet to inspire discussion, or have a quiz. Write student-generated facts on the board.)
2. As a short homework assignment, ask them to research what ordinary citizens did to help in the Gulf of Mexico oil spill. Tell them to bring at least one story of a person or group of citizens who have helped.
3. The second part of the lesson will give them hands-on experience at how hard it is to clean oil, using soft toys to represent the birds caught in the oil slick, they will test various cleaning agents and determine which works best at cleaning oil, while at the same time being gentle on the animals.

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4. Divide the class into groups of five. Tell them to record the effectiveness of the cleaning products they use. They should replace the water in the tray when they use a new cleaning strategy. Explain the factors they are looking for in the cleaning solutions to determine whether or not they are effective cleaning agents, for example how well does it clean the oil, does it remove any material from the toys, and is it biodegradable? Emphasize the importance of safety and tell them to wear the goggles, gloves, and trash bags before beginning.
5. Distribute the goggles, trash bags, plastic gloves, and trays. Make sure everyone is protected before you distribute the oil, water, and toys.
6. Place the small toys in one tray and liberally cover them with the oil mixture. Fill the other tray with water.
7. Have the students work to clean the toys using one cleaning product at a time. Tell them to record the results after each cleaning attempt.
8. Why do they think some cleaning materials worked better than others? Brainstorm ideas for other cleaning options that might work.
9. Remind them that many individuals and groups of citizens volunteer their time to help clean up oil spills. What other ideas do they have for demonstrating good citizenship during environmental disasters? Can they put any into practice?

McREL standards

Level III Benchmark 6. Knows examples of environmental conditions that affect the United States' domestic and foreign policies (e.g., destruction of rain forests and animal habitats, depletion of fishing grounds, air and water pollution).

<http://www.mcrel.org/Standards-benchmarks/>