

Pepper Experiment

Intended age group: Upper elementary through high school

Time Needed: 5 minutes

Learning objectives:

Materials needed: 6 small bowls half full of water, 6 small bags of pepper, 6 small bags of sugar, and 6 small pieces of soap.

Overview:

Set up this activity beforehand. Put one bowl of water, one bag of pepper, one bag of sugar, and one piece of soap on each table. Break into six groups and send participants to the tables where the materials are.

Ask participants to sprinkle the pepper liberally on the water. Tell them that the pepper represents all the people with whom you interact – family, friends, teachers, coworkers, etc. How we get along with these people depends on what we do and say when we are with them. Talk about the power of words and actions and how they can be respectful and kind or hurtful and rude.

Tell participants that the soap represents hurtful, rude words. Ask participants to dunk and hold the soap in the water in the middle of the pepper. The soap will repel the pepper and make it move to the sides of the bowl. Relate this illustration to what happens in life when we are hurtful or unkind to people – they want to scatter.

Next, have participants remove the soap and pour the sugar in the center of the water. The pepper will move towards the sugar. Again, relate this to real life and how others react when we are kind and thoughtful. People are drawn to us and want to be our friends when we treat them kindly.

Classroom application:

The phenomenon of the soap repelling the pepper is due to soap's ability to decrease the surface tension of the water. Use this experiment as an introductory activity for a science lesson on surface tension. (See <http://www.sdahq.org/sdalatest/html/soapchemistry1.htm> for detailed and illustrated information about the chemistry of soap.)

This activity was adapted from *10-Minute Life Lessons for Kids*, by Jamie Miller.