



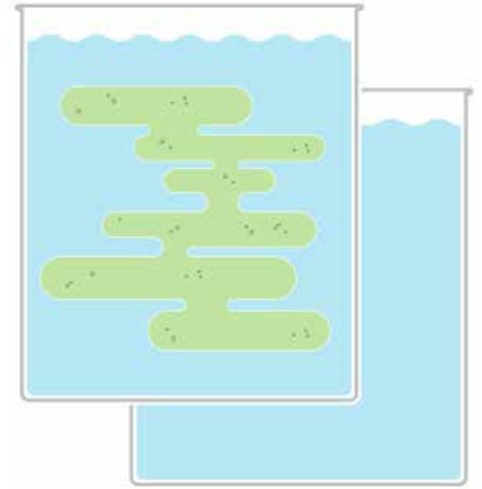
## SCIENCE EXPERIMENTS FOR KIDS

# GET THE DIRT OUT

**All living things require clean water for survival. Human activities can add materials to water that make water unfit for use, or pollute the water.**

Polluted or dirty water affects the lives of plants and animals to the point of making them unhealthy. In extreme cases, polluted water can kill plants or animals. The best solution to water pollution is to prevent it from happening. This is not always possible, so methods have been devised to remove some pollutants from waters.

Filters are used to remove sediment. Undisturbed soil is a natural filter. As water passes through it, pollutants are trapped. There are also human-made filters. For example drinking water treatment plants use sand filters. Other filters, like silt screens and straw bales, are used for construction sites. Filters help clean water but do not remove all of the pollutants. Filters do not necessarily remove some contaminants such as soluble chemicals and bacteria.



### OBJECTIVES

- Describe water pollution.
- Compare clean and dirty water.
- Describe the importance of clean water for daily use.

### MATERIALS

- 3 clear plastic glasses
- Tap water
- Pencil shavings
- Paper strips
- Styrofoam peanuts
- Filtering material (coffee filter, cheesecloth)
- Sand/Soil
- Vinegar & Detergent

### INSTRUCTIONS

1. Explain water pollution and its affects on everyday life prior to conducting demonstration.
2. Pour water into 2 clear plastic glasses. Set one glass aside.
3. Allow students to add items such as pencil shavings, paper strips, Styrofoam peanuts, detergent, vinegar, etc. to the first glass.
4. Take filtering material to top of polluted glass and have students filter off water to separate glass.
5. Ask students to compare the two glasses and discuss the importance of clean water for drinking, swimming, and bathing.

### TOPICS FOR DISCUSSION

- Discuss the results of the experiment. Is the water “clean”?
- Feel and smell the water. Discuss that even though water looks clean it’s not necessarily clean.

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