

Topic	Environment
Phenomenon	Water pollution
Experiment	Purifying water by means of a filter
Material to be provided	1 piece of filter paper 1 magnifying glass 1 measuring cup 1 pipette
Additional Material	cooking oil earth, sand, small stones and similar materials water
Preparation for experiment	none

Researcher question

How can we clean polluted water?

Preparation for experiment

Together with the children think about how water becomes polluted. Do the children have any ideas about how water can be made clean again? You may have already spoken to the children about water pollution and carried out the water hodgepodge experiment.

Give each group of children a measuring cup and a piece of filter paper. Ask the children to place the filter paper over the top of the measuring cup like a lid. Now suggest to the children that they pour a little water into their measuring cup through the filter paper, for example with the aid of a pipette. It is fine for the moist filter paper to sag somewhat in the center and form a small indentation. What do the children observe? How does this function with other materials such as small stones, earth, oil, etc.? Is it easy to pollute the water? What function does the filter appear to have?

Human beings, animals, and plants need water to live. Discuss with the children what they can do to help prevent water pollution.

Explanation

Water filters in various shapes and sizes are used for purifying water. The objective of using them is to remove particles causing turbidity or microorganisms as well as to remove substances dissolved in the water or to reduce their concentration. Some filters work purely physically like a sieve, such as the filter used in this experiment. However, there are also filters with chemical and physical actions that can remove substances dissolved in water.

