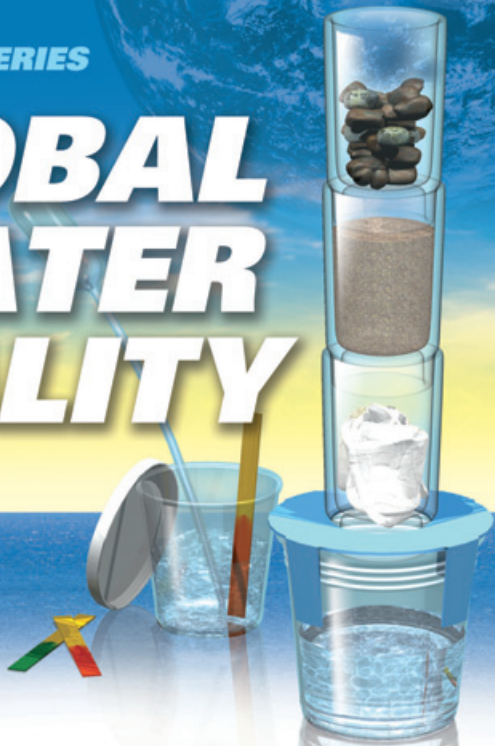


IGNITION SERIES

GLOBAL WATER QUALITY



Experiments:

1. Make clean water from a dirty concoction
2. Not everything can be filtered
3. Dissolving in water
4. Why rain isn't salty
5. SOS for the cress
6. Living things and water
7. Measuring pH
8. Sparkling water sparkles

Warning! — This set contains chemicals that may be harmful if misused. Read cautions on individual containers carefully. Not to be used by children except under adult supervision.

Thames & Kosmos



Information for Parents and Adults

Dear Parents and Supervising Adults,

With this experiment kit, your children will soon be performing exciting experiments. Please assist your young researchers, because a child's curiosity and comprehension are often better developed than their manual dexterity.

Rules for Safe Experiments

1. Thoroughly read the manual and prepare all of the materials ahead of time.
2. Prepare your workplace and protect the work table with newspaper or a washable surface.
3. Perform the experiments following the instructions in the manual, recording your observations. When safety advice is provided, take note of it.
4. Keep small children and animals away from the experiment area.
5. Do not eat or drink while experimenting.
6. Wear old or casual clothes while experimenting, and wipe up any spilled substances right away.
7. Use only containers and equipment from the kit, or ones which have been recommended for use in the experiments.
8. If you are experimenting with foods, first transfer the required quantity into a container and dispose of it after use.
9. Finish by cleaning all equipment, and always leave your workplace clean. Finally, wash your hands thoroughly.
10. Dispose of used filter or indicator paper and residues from the filter column in the household trash.
11. Never drink filtered water, even if it looks clean! Dispose of it after the experiment!

CAUTION!

Not suitable for children under 3 years of age. There is a risk of suffocation due to the possibility of inhaling or swallowing small parts.

Save the packaging and instructions, as they contain important information.

Notes on the Balloon

CAUTION! Children under 8 years of age can choke on uninflated or popped balloons. Adult supervision is required. Keep uninflated balloons away from children. Popped balloons should be removed without delay. Use a pump for inflating. Manufactured from natural rubber.

Kit Contents:

Item	Qty.	Item No.
Die-cut sheet	1	711 139
Sand	200 g	373 130
Filters (3 sections with mini-filters)	3	702 842
Water filter column	1	772 874
Large measuring cup	1	708 166
Small measuring cup with lid	3	061 150

Item	Qty.	Item No.
Drinking straw	1	000 414
Cress seeds	1	532 122
Pipette	1	232 134
Balloon	1	701 060
Indicator paper	1	773 700
Spatula	1	000 239

Assembling the Water Filter Tower

Your experiments will start with a war against dirty water.

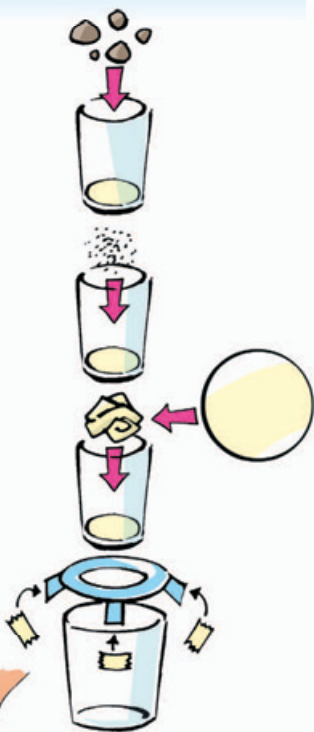
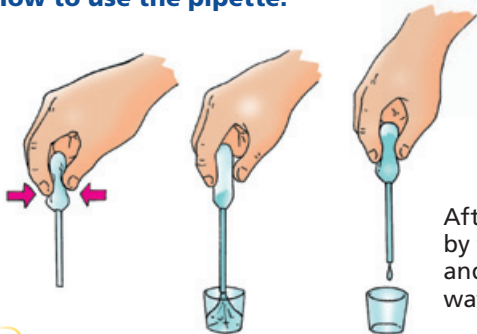
Be sure that there is a round piece of filter paper at the bottom of each section of the filter column.

Collect some small pebbles from outside.

Fill the first section of the column with the small pebbles that you collected, the second section with sand, and the third section with a wadded-up piece of filter paper. Insert them one above the other in the order shown. Fit the cardboard holder from the die-cut sheet over the collecting cup, and insert the filter tower into its opening.

Your water filter unit is now ready for use!

How to use the pipette:



After use, rinse the pipette by filling it with clean water and squeezing out the water two or three times.

EXPERIMENT 5

SOS for the cress

Why does so much effort have to be put into cleaning wastewater?

You will need: cress seeds, 3 small measuring cups, filter paper, pipette, as well as: table salt, vinegar or lemon juice



- 1 Place a small piece of ripped-off filter paper in each measuring cup, sprinkle a few cress seeds and sand on top, and moisten everything well. To help the seeds sprout faster, set the lid on loosely. Place them in a sunny location and be sure that the seeds always stay moist.

Tip: Water the plants with the pipette, then you can find the correct quantity of water!

- 2 After the plants have grown for a few days, sprinkle a pinch of salt into one of the measuring cups. To the next cup, add a few drops of vinegar or lemon juice. And simply stop watering the plants in the third measuring cup. What happens?



Explanation:

The cress plants that were treated with salt or vinegar shrivel or die. Dirty wastewater is just as harmful for animals and plants. And without water, plants will very quickly dry up. Exceptions to this rule are plants that are of a type that can thrive in dry environments. Vinegar and lemon juice are both what chemists call acids.