



Observing

Is water in a glass flat?

How can we observe a concave meniscus?

Provide each table with the following sets of items :

- a glass full of colored liquid (e.g. blackcurrant juice)
- thin, transparent straws.
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1. The students immerse their straws in a glass. The water level in the straws should be clearly higher than in the glass. The thinner the straw, the more visible and better the effect.

2. A better effect is achieved if we immerse and take out the straw several times so that the inside of the straw is moistened.

3. The children look at the surface of the water in the fluid. Is it perfectly flat? Draw the students' attention to the fact that the level of the water is slightly higher at the sides of the vessel.

Instead of the students making observations at separate tables you could make one central display, which all them observe together.

The water level in the straws is higher than in the glass.

Is water in a glass flat?



Is water in a glass flat?





Experiment

The children experiment once more with capillary action.

Capillary action – water absorbing (hydrophilic) materials

Divide the students into 5-member teams. For each team prepare a set of the following items:

- a container with water
- five small vessels, one for each child,
- various absorbent materials (tissues, white cotton string, toilet paper, paper towels, dish cloths and a sponge),
- worksheets.

The task of the students is to observe capillary action in materials of everyday use. Capillary action occurs not only in thin pipes but also in all absorbent materials we use on a daily basis. The students place one end of their material in the container filled with water, and the second in their empty cup and observe what happens. Water will seep through the materials and into the cups.

Observe capillary action in materials of everyday use.





Observing

With the help of a microscope, a magnifying glass or with the naked eye the students observe a plant stem that has been cut through.

For these observations the students will need the stems of different plants, e.g. from flowers or herbs. Hand them out to the students and ask them to carefully cut the stems with scissors so that they can see the structure of the cross-section. Use any magnifying glasses and microscopes in class if you have any.



Experiment

Project work – prove that plants take in water.

The project work

Allow the students to come up with their own ways of proving that water is essential for plants. Here is one example of a possible experiment.

Color changing flowers - by Elearnin

Clicking play will redirect you to YouTube website.

