Water's Uphill Run — Teacher Information Sheet

This activity will show students how water can seep upward, through capillary action. The water will move up and over the rim of the glass and down into the bowl through the "wick" connecting the two containers. Just as a candlewick carries melted wax up to the flame, the water wick will carry water along its length.

Materials (per group of three or four students)
- Glass
- Water
- Bowl
- Two paper towels or thick string

This activity may be done as a class, in small groups, or with partners. For full benefit from the activity, build in time to regularly observe the changes taking place.

Directions
1. Working in partners, have each group fill the glass with water and place it next to the dry, empty bowl. (Be sure to put this in a safe place, since it will need to stay there for a day or so without being disturbed.)
2. In each group, fold each paper towel (hotdog style) several times until you have a long, narrow strip. (If you are using thick string, skip steps 2 and 3.)
3. When both paper towels are in long strips, create a wick by tightly twisting the two strips together.
4. Bend the wick in the middle and place one end in the glass of water and the other end in the empty bowl. (Be sure the end of the wick is all the way in the bowl.)
5. Observe the wick after a few minutes. Using your observation notebook, write any changes you see taking place in the cup, bowl, or with the wick.
6. Make regular observations throughout the day to document any changes that occur.

Results of activity
Within minutes, the wick begins getting wet as the water from the glass begins to travel along it. After a few minutes, a small amount of water will appear in the bottom of the bowl. The water tends to "ooze" into the bowl instead of flow. When the water level in the bowl is as high as the level of the water remaining in the glass, the water stops moving. If the glass is placed on something higher than the bowl, most of the water will pass from the glass to the bowl.

Why does this happen?
There are thousands of tiny spaces between the fibers of the paper towel or the string. Water moves into these openings and moves along the twisted material. This movement of water is known as capillary action. This is the same process that occurs within plants — moisture moves from the roots of a plant into capillaries that take it to the rest of the plant.

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Student Instruction Sheet

Can water really move upward? The following activity will help you understand how this happens.

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Writing Prompts

- The water in the glass was able to move through the wick into the bowl. Explain how this occurred.
- Explain why the water stopped moving through the wick when the water in the glass reached a certain level.