

California State University of Bakersfield, Department of Chemistry

Capillary Action Bridge



Standards:

HS-PS2 Forces and Interactions

Introduction:

Water can certainly move in mysterious ways, get the water from one cup to flow from one cup to a second empty cup with the help of paper towels and an interesting scientific process. You can demonstrate capillary action using only two clear cups and water.

Materials:

- A glass of water
- An empty glass
- A paper towel

Safety:

- Always have an adult with you to help you during your experiment.
- Always wear eye protection and gloves when doing chemistry experiments

Procedure:

1.Twist a paper towel together until it forms something that looks a little like a piece of rope, this will be the 'wick' that will absorb and transfer the water (a bit like the wick on a candle transferring the wax to the flame).

2. Place one end of the paper towel into the glass filled with water and the other into the empty glass.

3. Watch what happens (this experiment takes a little bit of patience).

Data and Observations:

What did you see? Anything you were not expecting?

How long did it take for the hard-shell to dissolve and for the letters to float to the top?

Questions:

- 1. How does the water flow from one cup to the other?
- 2. Explain capillary action and the adhesive and cohesive forces that make it happen.

References:

 Escaping Water. Science Kids. http://www.sciencekids.co.nz/experiments/escapingwater.html (Accessed July 16, 2013)