PAPER TOWEL ABSORPTION RACE

(Cohesion/Adhesion)

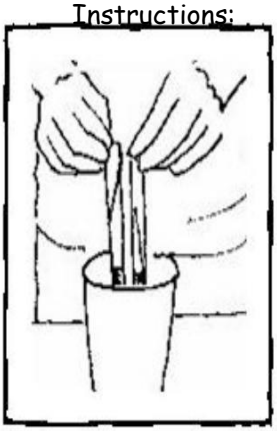
Watch water **molecules** pull themselves up a paper towel as they "stick" to each other, and "stick" to the paper towel.

Predict: Which brand of paper soaks up water more quickly?

You Will Need:

1 square of 2 different brands of paper towel (2 total)
1 clear plastic cup (6 to 8 oz. size)
1 cup of water
1 pencil
1 food coloring color
1 - ruler
1 - stop watch/time keeper

Instructions:



Measure and cut the strips of paper towel 3 cm x 20 cm.
Label each strip (at the top) to be able to tell the difference between the brands.
With a pencil, draw a line across each strip at 10 cm.
Fold each strip in half, lengthwise.
Pour water into the plastic cup to a depth of 1 cm. Add a drop of food coloring.
At the same time, submerge the bottom end of each paper towel, allowing the bottom of the towel to barely touch the bottom of the cup.
Record the start time.
Hold the paper towels upright, and watch closely as water climbs up the paper towels.
Record the time when the water reaches the 10 cm line for each towel: this is the "stop" time.
Subtract the start time from the stop time for each towel to find the amount of time it took for the water to travel up each of the paper towels.
Record your results on the scoreboard.

Think About It!

Water can carry dissolved substances with it. Plants and trees **absorb** dissolved **pollutants** in the water they take in. They effectively **filter** some of the pollutants out of the water, and store them in their plant tissues. How do you think fish and wildlife, or fruits and vegetables would be affected by polluted water?