**Capillary Action: Liquids Flow Up**

**Background:** Capillary action is the movement water, and anything dissolved in it, through a porous material. The forces that allow this to occur are, adhesion, cohesion and surface tension.

**Cohesion:** particles of the same substance stick together

**Adhesion:** particles of different substances stick together

**Surface Tension:** the tension on the surface of a liquid caused by the attraction of particles.

Using these definitions, we can understand that water molecules are attracted to each other as well as other substances. This attraction causes water to move upward through porous materials. Capillary action is a process used in the Paper Chromatography method. Paper Chromatography can be used to separate chemical substances in chemistry, plant pigments in biology and many more studies.

**Experiment:** Here is a simple version of a paper chromatography experiment that can be done at home.

Material:

* Clear cup
* Water
* Paper Towel
* Highlighters 3 Different Colors

**Steps:**

1. Cut a strip of paper towel about 1.5 to 2 inches wide and 8 in long ( or however tall the cup is)
2. About an inch from the bottom of the paper towel draw three dots with three different colored high lighters.
3. Fill the cup with water, about 2 inches high.
4. Carefully lower the paper towel into the water so the water does not cover the dots drawn. Paper clip the top of the towel to the cup.

  