Experiment 2.1: Capillary Action

Data:

After putting the strips in the colored water, I could see the colored water rising up the paper towel and facial tissue.

After 5 minutes, the colored water had risen higher in both the paper towel and facial tissue. Also, it had risen a bit in the writing paper. The wax paper still had no colored water rising on it.

Summary:

In this experiment, I cut a thin strip of paper towel, a thin strip of facial tissue, a thin strip of writing paper, and a thin strip of waxed paper. I then taped them side-by-side on a pencil so that they hung down from the pencil but did not touch each other.

I then put blue food coloring in a small glass and added enough water so that there was about an inch of colored water at the bottom of the glass. I then cut the bottoms of the strips of paper that were hanging from the pencil so that they were all the same length and so that, when the pencil was placed on the glass, the strips would soak in the colored water without touching the bottom of the glass. I then observed what happened, waited 5 minutes, and observed again.

Conclusion:

In this experiment, the water was strongly attracted to the molecules in the paper towel and facial tissue, so it started rising in both of those strips. This is called capillary action, and the stronger the attraction, the higher the water will rise. The water was partially attracted to the molecules in the writing paper, but not nearly as much, so the water didn't rise too high in the writing paper. The water wasn't at all attracted to the waxed paper, so it didn't rise in the waxed paper at all.