

Name: _____

Date: _____



“ The Quicker Wicker-Upper”



Mr. Baxter and Mrs. Sheffield became quite interested in learning more about capillary action after reading the history of different types of pens. They hadn't realized what an important role capillary action played in the function of the quill pen, the fountain pen, and the ballpoint pen.

“Wow!” said Mrs. Sheffield, “The Sharpie markers I like to use certainly rely on capillary action to work properly, and so do our regular markers and dry-erase markers. I never really thought about it that much. Capillary action occurs in our classroom everyday!”

“Whew,” replied Mr. Baxter, “You aren't kidding. Think about all of the Kleenexes and paper towels we use around here every day.”

They both took a moment and really *did* think about all of the Kleenexes and paper towels that were used at GEMS Academy every day. Then they started talking about other materials that also soak up water: sponges, newspaper, flower stems, the hems of blue jeans.... This, of course, led to a disagreement about what makes a certain material “better” at capillary action.

Is it one that soaks up liquid the quickest or one that soaks up the most volume of liquid? Could there be a material that is best at doing both? How will you control the variable for size of material being testing: by using linear measurements or weight?

Here is where your challenge begins. With your partner, decide which property or properties of capillary action you want to test and how you will design an experiment to do so.

So far you have been given the following materials:

Paper towels – (consumer style – white roll)
Paper towels – (commercial style -brown folded)
Facial tissue - (Kleenex)
Newspaper
Coffee filters
Manila folder
Copy paper
Cotton diaper

Water
Markers
Measuring cups
Rulers
Stopwatches
Paper clips
Scissors
Cups

You **do not** have to use all materials listed. Think carefully about what **other** tools or materials you may need to effectively conduct your experiment.

Create an experimental design plan to test one property of the capillary action of a minimum of three (3) different materials.

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1. Materials we will use:

2. Hypothesis:

3. What variables do I need to control in my experiment, and how do I plan to do so?

4. Procedure for my experiment:

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5. What data will I be collecting and how will I collect it? What tools will I need?

6. What were my results?

7. What is my conclusion?

8. What other questions do I have now?