

Day 4

Walking rainbow science experiment.

We will learn about how water travels up the paper towels through a process called **capillary action**.

You can watch this video to help you with the experiment




<https://www.youtube.com/watch?v=hGwG--GZEfw>

Walking Water

What I think will happen:

What I observed:



What I learned:

Visit our science page to download recording sheet (day 4)

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Watch the YouTube video or follow these instructions.

You will need:

- Printable walking water recording sheet
- Small plastic cups or glasses
- Paper towels
- Food coloring in primary colors
- Water



Instructions:

1. Print out the recording sheets and make copies, if needed.
2. Place 7 cups in a row and pour water in the 1st, 3rd, 5th, and 7th cup. My cups were about 3/4 full. I have since heard that fuller is better.
3. Add 5 drops of red food coloring to the 1st cup and the 7th cup.
4. Add 5 drops of yellow food coloring to the 3rd cup.
5. Add 5 drops of blue food coloring to the 5th cup.
6. Take a half sheet of paper towel and fold it in half lengthwise and in half again lengthwise.

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Instructions continued...



7. Place one half of a rolled paper towel in the 1st cup and place the other half in the cup next to it. Then another paper towel from 2nd cup and into the 3rd cup. This continues until you have placed the last paper towel that drapes over from the 6th cup to the 7th cup.

8. Stare at the cups and watch what starts happening. You should quickly be able to see the colored water begin to crawl up the paper towel.

**Don't forget to do the first part of the recording sheet.
Students will predict what they think will happen.**

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Questions to ask:



- What do you think will happen to the water?
- What can you observe?
- Why do you think the colors are changing?
- Why might the water be able to move up against gravity like that?

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How this science experiment works



The water moves up the paper towels through a process called **capillary action**. The paper towel is made from fibers and the water is able to travel through the gaps in the fibers. The gaps in the paper towel act like capillary tubes and pull the water upward. This is what helps water climb from a plant's roots to the leaves at the top of the plant or tree.

The water is able to move upward against gravity because of the attractive forces between the water and the fibers in the paper towel.