

Can water climb?

Ages 4–7 with a grown-up · 5–10 minutes · Follow a wet edge

<https://kiddos.ai/explorations/learning-with-gina-and-ollie/can-water-climb>

Wonder together

Only the tip will dip. Will the water stay at the bottom— or travel up the towel?

Materials

A stable unbreakable cup, a little room-temperature water and absorbent paper towel.

Adult setup – read before trying

An adult tears a narrow strip and holds it upright over a wipeable surface. Dip only the bottom tip and keep it immersed. Optional food coloring is adult-handled; no drinking experiment water. Wipe spills and empty the cup afterward.

Try together

1. With an adult, put a little room-temperature water in a stable unbreakable cup.
2. Tear a narrow paper-towel strip; hold it upright and dip only the bottom tip.
3. Keep the bottom immersed and wait while the child watches the wet edge.
4. Describe where the paper became wet, then wipe up any spills.

Keep the comparison clear

Keep fixed: The same strip, cup, water level and immersed tip.

What changes: Time passes as water spreads through the paper.

Look for: Find the wet edge above the water surface in the cup.

Explain with care

Water is attracted to the paper fibers and to other water molecules. It can move through tiny spaces in the towel by capillary action.

Gravity still acts and limits the rise. Towel type changes timing and height; blue color is only a visibility aid.

Talk about it

Only the tip will dip. Will the water stay at the bottom— or travel up the towel?

Answer cue: Welcome a guess before reading the result. No correct prediction is required.

Is the wet patch only below the cup's waterline?

Answer cue: An absorbent towel can become wet above that waterline.

Would coloring be needed to make the water move?

Answer cue: No. Plain water can move through the towel too.

A parent move: Wait with your child before pointing out the wet edge; let them spot the change.

Start simply: Use a fresh dry narrow strip with a clear, easy-to-see wet edge.

Explore further: Try a second towel type with the same tip depth and compare what you actually see.

Return to it: Notice a paper towel soaking up a spill and connect the wet spreading to this test.

In the classroom

Flexible 20-minute small-group session; pause or shorten as needed.

3 min · Wonder

Read pages 1–2. Invite a prediction with words, pointing or a sketch; keep the result hidden.

4 min · Notice the story

Read pages 3–5. Is the wet patch only below the cup's waterline? Separate the observation from the explanation.

9 min · Try together

Use the materials and adult setup on this guide, then follow the activity steps in this guide. Find the wet edge above the water surface in the cup.

4 min · Make meaning

Would coloring be needed to make the water move? Invite a drawing, a description or an adult-written note. Wait with your child before pointing out the wet edge; let them spot the change.

Understanding check

Would coloring be needed to make the water move?

Answer guidance: No. Plain water can move through the towel too.

Participation choices: Use a fresh dry narrow strip with a clear, easy-to-see wet edge. Accept pointing, words, a drawing or adult-directed action. Use the story alone if the activity is unsuitable.

Words to explore

fibers — Tiny strands that make up the paper towel.

capillary action — How water moves through tiny spaces in materials such as paper.

Full adult notes and honest limits

Put a stable unbreakable cup with a little room-temperature water on a wipeable surface. An adult tears a narrow strip of absorbent paper towel, holds it vertically and lowers only its bottom tip into the water. Keep that end immersed and the rest above the water surface. Watch the wet edge spread; timing and height vary with the towel and setup. Try a fresh dry strip if it folds into the cup or the wet area is hard to see. Optional food coloring helps visibility; an adult handles it, and the experiment water is not for drinking. A child can guess, point, describe or direct the adult without gripping or reading. Accept their first idea before explaining. Paper contains tiny fibers and spaces. Attraction between water and the fibers, together with water's attraction to itself, helps draw water through these spaces. This is capillary action; gravity still acts and limits how far water can rise. The blue tint is a visibility aid, not the cause. The enlarged fiber diagram is simplified, not to scale. The related book explores the water cycle; it is an invitation to another water adventure, not the factual source for this experiment.

Related reading

Where Did My Water Go? follows the water cycle. It offers another water question; it does not teach this capillary-action activity.

Scientific sources

usgs-capillary-action-water — <https://www.usgs.gov/water-science-school/science/capillary-action-and-water>

nasa-food-for-thought-towel-demo — <https://www.nasa.gov/wp-content/uploads/2011/10/food-for-thought-educator-guide.pdf>

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