Ages: 12-14

A family water-use test



90 min · indoors · all year round

Prep:

- Measuring jug holding at least 1 litre
- Basin or large bowl
- Timer
- A4 sheet, pen and calculator
- Cloth

Step by step (~90 min):

1. Put the basin under the tap. Measure cold water only, and use the collected water for cleaning or watering plants afterwards.
2. Draw a table with columns for tap setting, volume in 10 seconds, flow per minute and volume over two minutes.
3. Turn on the tap to its usual flow for exactly 10 seconds: one person opens it while another counts. Pour the water into the jug in batches and record the total volume.
4. Repeat with a thin stream, trying to turn on the tap in the same way.
5. Multiply each 10-second result by six to find the flow per minute, then calculate the water used over two minutes of brushing teeth. Choose one rule and set a week to test it.

If it's not working: If the measurements differ greatly, repeat each setting once with the tap in the same position as before. Record both results instead of choosing the one you prefer.

Playing together: A child aged 9-11 runs the timer and measures the volume; a teenager aged 12-14 calculates flow and proposes a week-long test; the adult watches the tap and basin and keeps the floor dry.

Make it your own: Compare 10 and 20 seconds, calculate a week's water use, or test how much water a particular household task needs with a thin stream.

Let's talk:

- "How can we compare the two tap settings fairly?"
- "What rule saves water without making the task harder?"
- "What surprised you about the numbers?"

Stay safe: Place the basin securely and wipe up spills straight away. Do not use hot water for this experiment, and do not drink or cook with the collected water.

Why try this:

Your teenager organises a measurement, checks the calculations and proposes a family rule based on observations. Everyone helps decide which changes are worth trying.