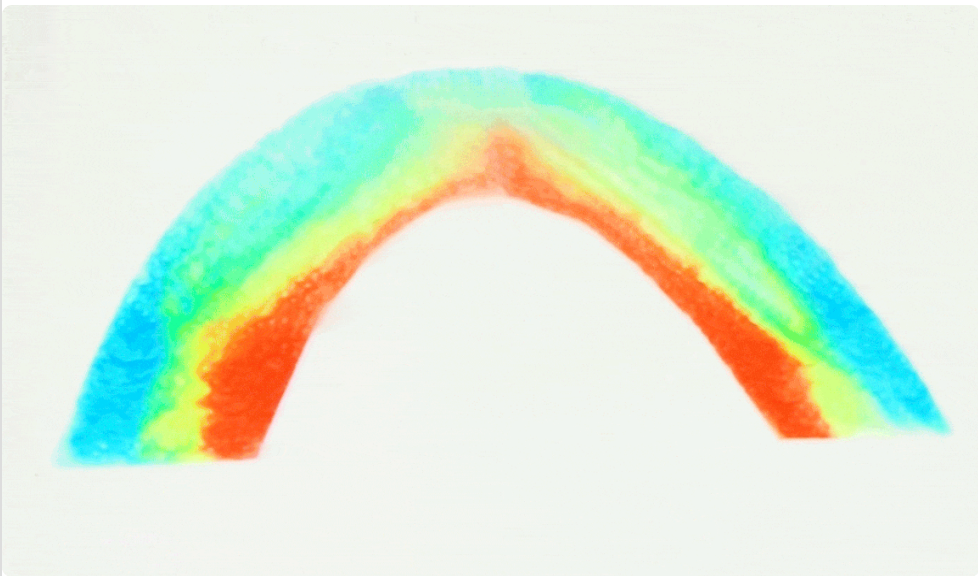


# Rainbow Water Magic: The Capillary Action Experiment

September 28, 2024 / DIY / Stem Activities / Quick Easy Experiments / Age 3 - 5 / Walking Water Science

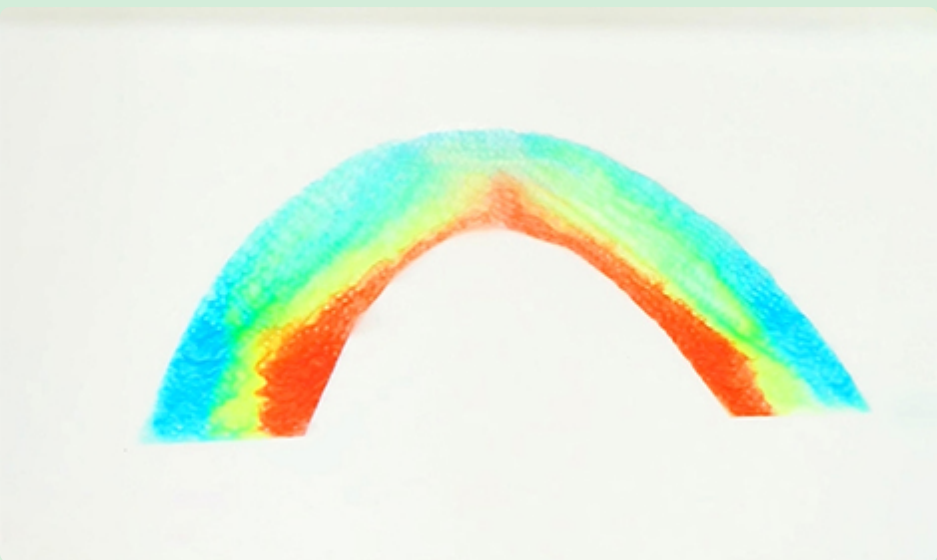


Have you ever wondered how trees absorb water from the soil? Or why we need to use a towel to dry a table? Through this simple yet exciting science experiment, let's explore the science behind these phenomena.

- Age: 3-5
- Time: Less than 30 minutes
- Level:A little Messy

## Materials Needed:

Kitchen Paper Towels  
Scissors  
Watercolour Pens  
Dropper  
Water

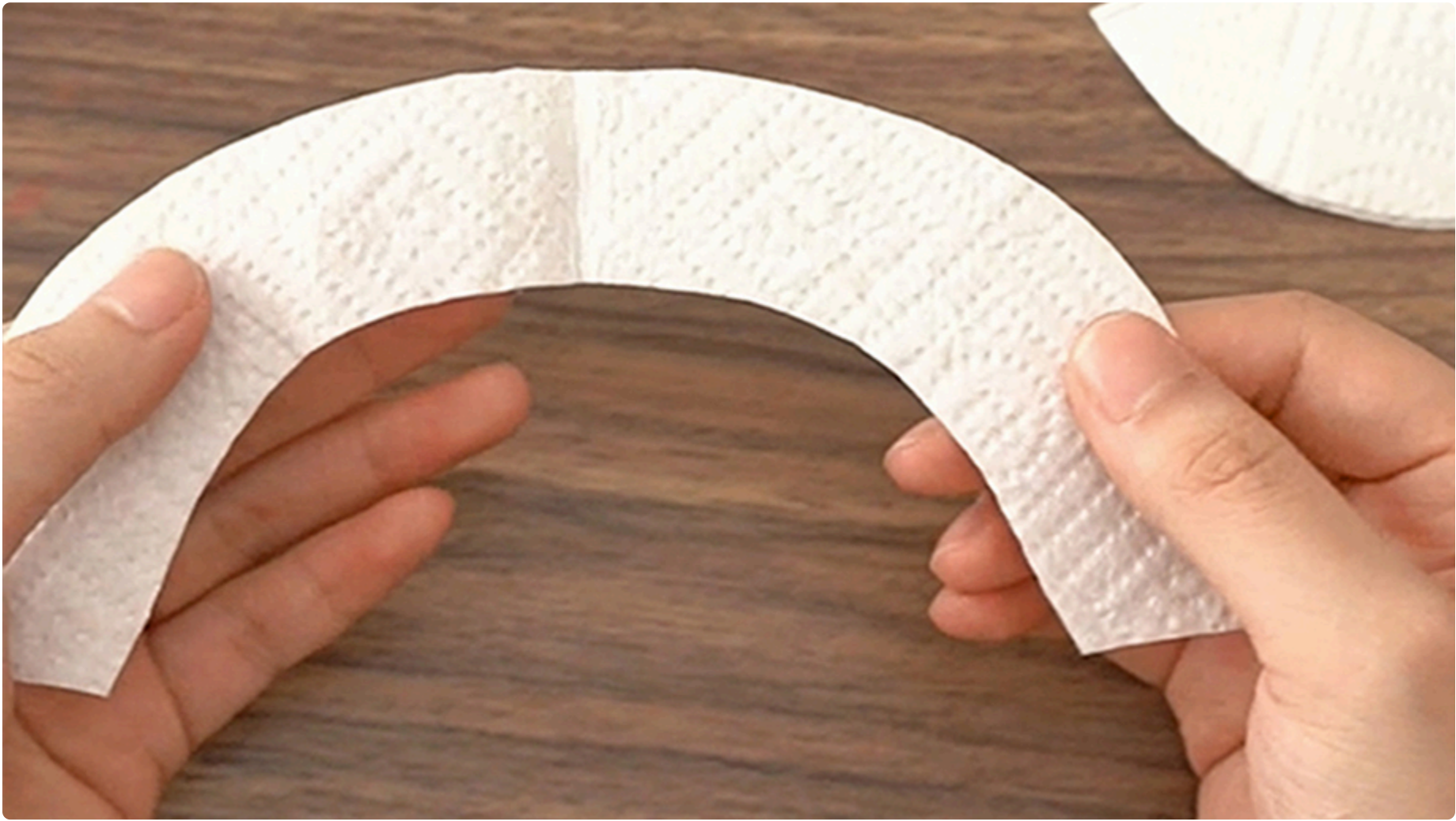


## Step-by-Step Instructions:

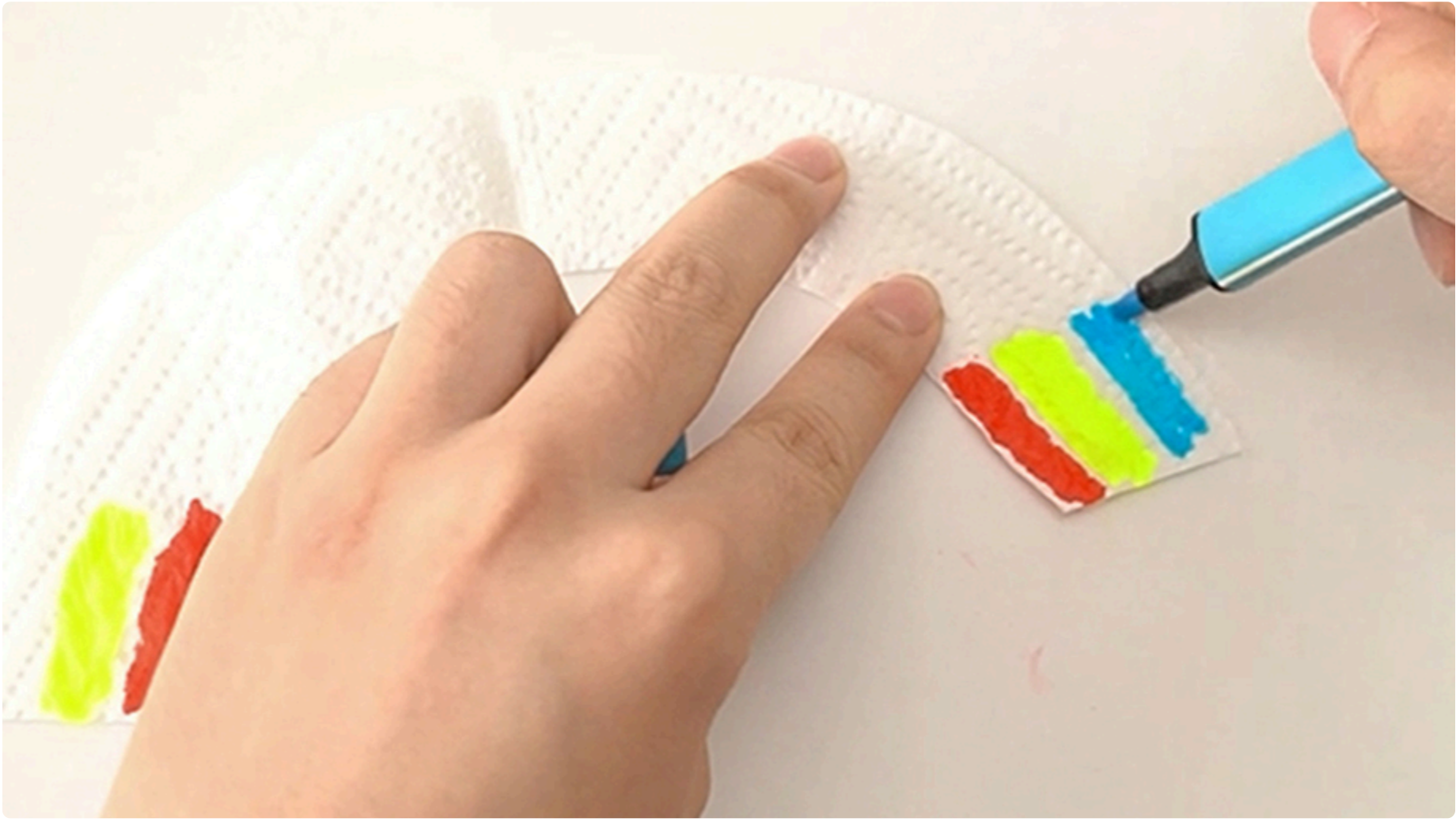
li>Fold a kitchen paper towel and cut it into an arc shape (as shown in the image below).



1. Unfold the paper towel, and you'll have a rainbow shape.



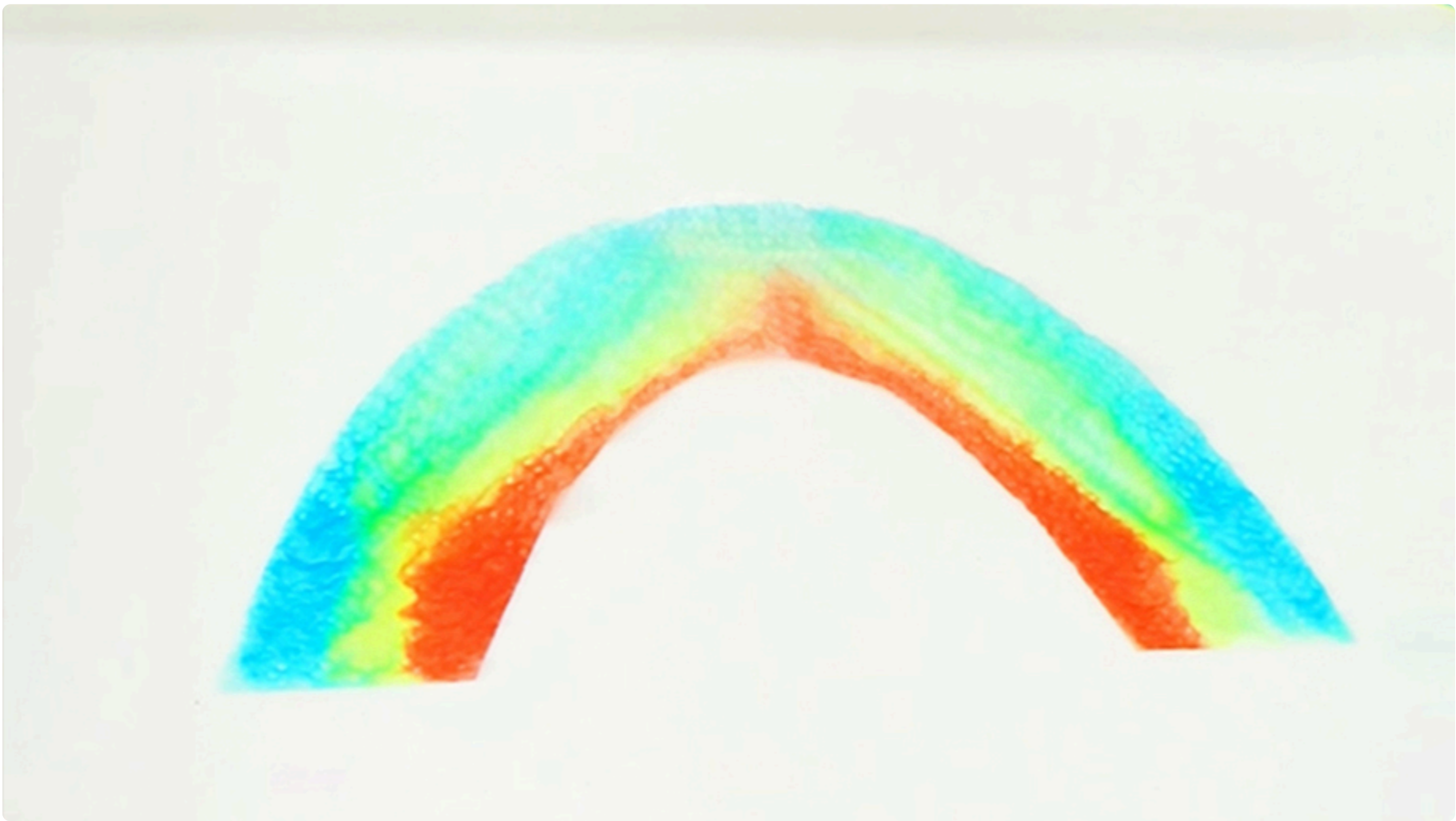
2. Use watercolour pens to colour both ends of the rainbow with your favourite colours.



3. Use a dropper to add water to the coloured areas at both ends, and observe what happens.



4. Wait for a moment. Can you see the beautiful rainbow?



## The Science Behind It:

Paper towels contain many tiny fibre tubes through which liquids can climb. We call this phenomenon capillary action. This is also why you can easily wipe water off a table surface with a paper towel, as the water hides in the fibre tubes of the paper towel. It's the same principle that allows water to rise from tree roots to the leaves at the top through capillaries!

Additionally, the surface tension of liquids causes water to like sticking to objects (this is why you feel wet when you dip your finger in water, as water molecules stick to your finger!), which also promotes the flow of water in the paper towel.