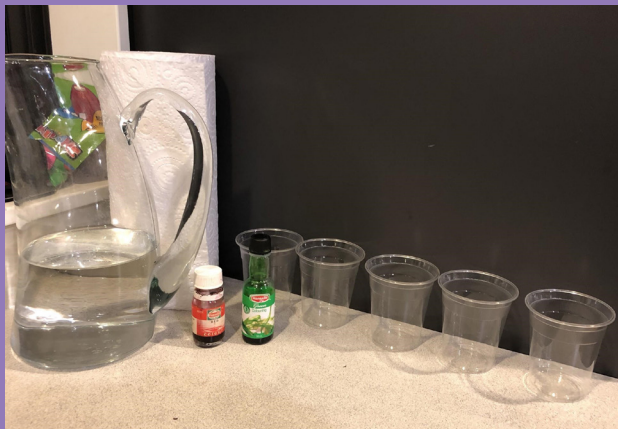


Travelling Water

What you need:

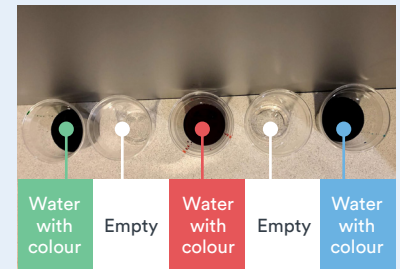
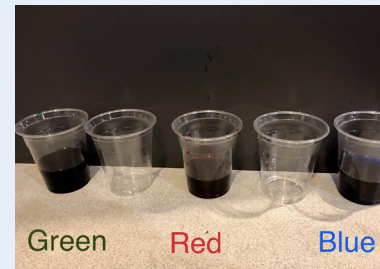


- 5 cups
- 2 or 3 colours of food colouring
- Cold water
- 4 paper towels

Instructions:

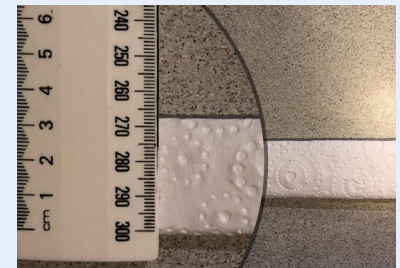
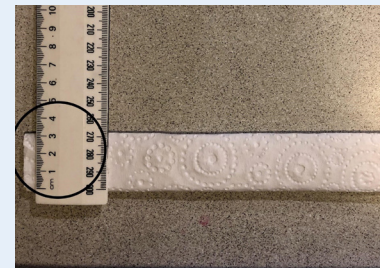
1

Add around 3cm of water with 10 drops of food colouring into every second cup. Lay the 5 cups in this sequence, colour cup, empty cup, colour cup, empty cup, colour cup.



2

Fold up 4 paper towels or tissues into around 3cm strips.



3

Place the paper towels into each end of the cup (like a letter n) so each cup has an end of a paper towel.



Travelling Water

Instructions:

4

Record how much water is in each cup using a ruler. Straight away, after 1 hour, after 2 hours.

Cup	Amount of water straight away	Amount of water after 1 hour	Amount of water after 24 hours
1	3cm		
2	0cm		
3	3cm		
4	0cm		
5	3cm		

5

Great scientists like to imagine what happens. What do you think may happen to each cup?

6

Place your paper towels out to dry and look at the cool colours you have made.



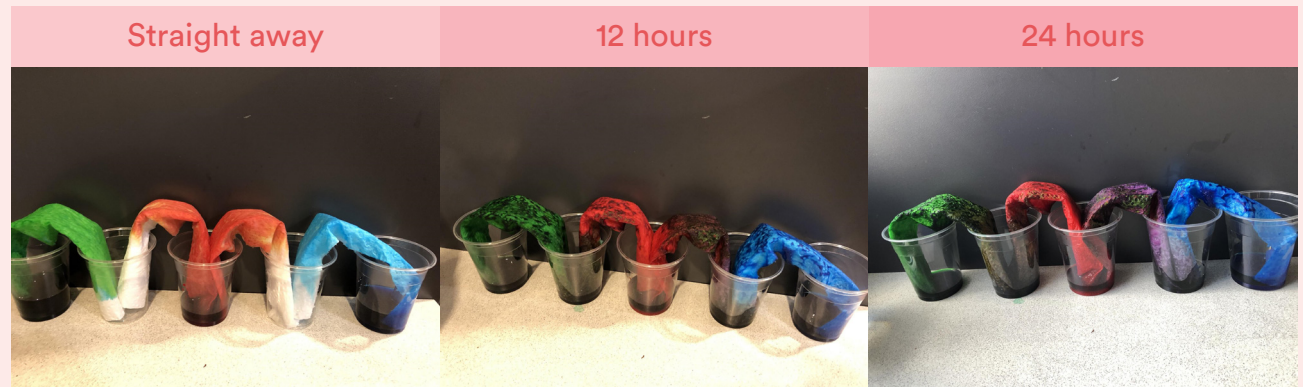
Travelling Water

Results:

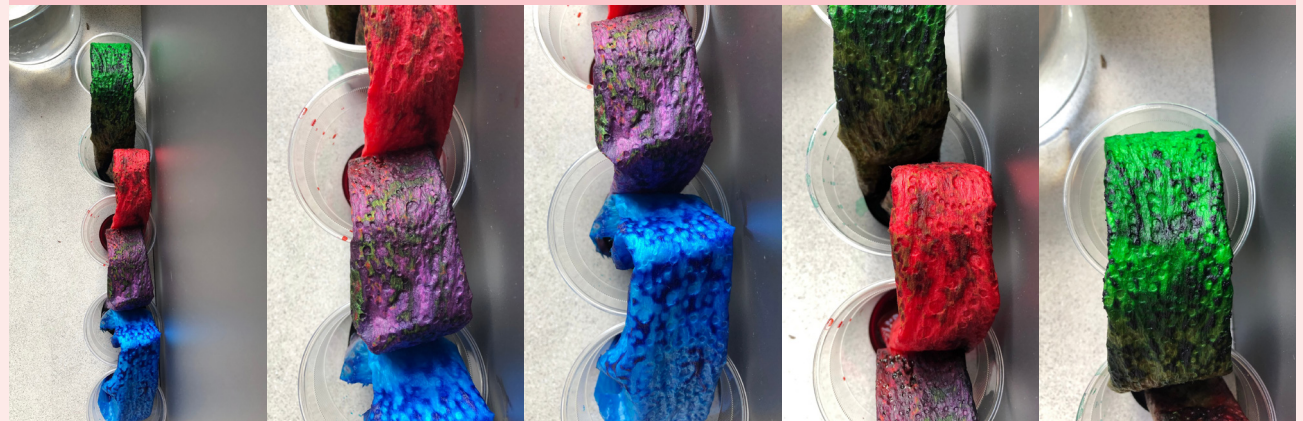
Can you see what is happening?
You will see this begin to work
straight away.

Record your results on a table like the one at
instruction number four.

Take photos each time you walk past, look and
compare the changes that happen with time.



Check out the cool colours we made.
HOW do you think this worked?



Travelling Water

The Science Behind it:

The coloured water moves up the paper towels through a process called capillary action. This is a similar process to when the water moves up the stem of a plant through its xylem vessel.

The paper towel is made from fibres and the water is able to travel through the gaps in the fibres. 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 fibres in the paper towel.



As the water travels from cup to cup it will eventually even out where the water is no longer moving and there is an equal amount of water in each cup.

As the coloured water moves it mixes the colours to create new colours, like purple!

Act Like a Scientist:

Good scientists like to ask and explore and ask more questions!

Repeat this experiment and watch

- Use different colours of food colouring?
- Would it work quicker or slower with hot water at the start?
- Would different types of tissue paper make a difference?
- Only fill cup 1 with a coloured water; would the water travel from cup, to cup, to cup and end up in cup 5?