Running Rainbow Challenge.

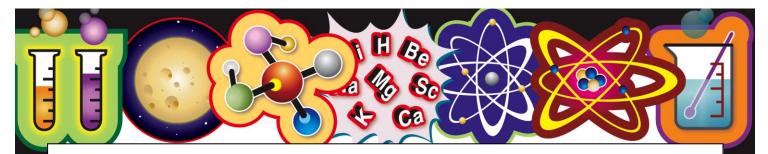


This is a very easy but fun investigation to do.

- 1. Get all the equipment you need.
- Fold each paper towel sheet in half twice lengthwise to make a long rectangle. Then in half to make a V shape.
- 3. Trim off extra length so that your paper will fit from the bottom of one cup to the bottom of the next. See diagram above.
- 4. Put all the containers next to each other and then a third fill each with water.
- 5. Put into the 1^{st} and 7^{th} container about 5 drops of red food colour. 5 drops of yellow into the 3^{rd} and 5 drops of blue into the 5^{th} .
- 6. Carefully place the paper towels between each cup so the ends are immersed in the water of one cup and the next.
- 7. Wait a few moments as the colour begins to climb up the towel and into the next container.



What you will need: 7 small Food coloring red, yellow and blue Paper towels 6 sheets Water



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The science behind it:

The water moves up the paper towels through a process called capillary action. 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.

Take it further:

Things you could try:

- Does other types of paper or material work?
- Remove one of the red cups and make a wheel. What happens now?



