Grow a Rainbow Experiment

Encouraging your budding scientist

Kids are great scientists and can use the scientific method or science practices in context to what they are learning. The scientific method is a useful tool for introducing kids to a logical way to solve scientific problems.

- Before this experiment, you can ask your child/ren what do they think will happen?
- During this experiment you can ask what is happening?
- At the end, you can discuss what actually happened compared to what they thought would happen.

Items required

- Washable textas - the colours of the rainbow. Permanent textas wont work
- 1 piece of paper towel or absorbent napkin, scissors and ruler
- 2 small cups
- Water

Steps

- Fold your paper towel in half. Measure to 12cm and cut. You should now have a rectangle shape. Keep the paper towel folded in half
- Using the 6 colours of the rainbow, at the shortest ends of the paper towel, colour 1cm of each colour, making sure the colours match on each side
- Fill each cup of water 3/4. Hold your paper towel so both ends are submerged in the water. Do not place the paper towel too deep into the water
- Watch and wait as your rainbow grows

The science behind this experiment

This experiment shows capillary action - this action makes the marker dye move up the paper towel. The water molecules like to stick to things – this is called adhesion. They also like to stick to themselves – this is called cohesion. In your rainbow the water is being 'sucked' through the holes in the paper towel because of adhesion and the rest of the water molecules follow due to cohesion. Eventually the water pressure will slow down and the pressure of gravity means your rainbow will stop moving!