

Title: Rainbow in a Glass

Age Group: School Age

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Type of Activity: Water Density

Materials:

- 5 Glasses or clear plastic cups
- 4 Food colours
- 10 Tablespoons of sugar
- $\frac{3}{4}$ cup of water
- 1 Tablespoon

How to Do it:

- Have your child add 1 tablespoon of sugar and 2 drops of red food colouring to glass 1
- Add 2 tbsp of sugar & 2 drops of yellow to glass 2
- Add 3 tbsp of sugar & 2 drops of green to glass 3
- Add 4 tbsp of sugar & 2 drops of blue to glass 4
- Heat water in the microwave for 20 seconds
- Pour 3 tablespoons of water into each of the four glasses
- Ensure sugar is completely dissolved before layering
- Now, create a rainbow by pouring each of the solutions one-by-one into glass 5, in descending order of heaviest to lightest densities: blue, green, yellow, red
- Tip* pour slowly and use the back of a spoon to hover over each layer when pouring the next solution into the glass

Root Skill / Extension:

Cognitive: 4.5 Inquiry

The denser the substance, the more likely it'll sink. Ask your child questions: "Why did the four layers not mix together?" "What would happen if you used salt instead?"

Extend learning: Try a viscosity experiment; time how fast an object sinks in different liquid