

LEARNING RESOURCE

SUPER COOL EXPERIMENT

MATERIALS

- 2 Empty plastic water bottles
- Food colouring (optional)
- A plate

PREPERATION

- Fill one plastic bottle with water and then put it in the freezer for 3 hours.
- Fill the other plastic bottle with water and a 1tsp of food colouring of your choice and put in freezer for 3hrs.

INSTRUCTIONS

PART A

1. Take the plastic bottle out of the freezer.
2. You'll find the water is still liquid.
3. PREDICT what you think will happen to the water if you hit it against the table
4. Hit the bottle against a table
5. What happens to the water?

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PART B

1. Take the plate of frozen water
2. Take the coloured water out of the freezer
3. PREDICT what will happen when you pour some of the coloured water onto the plate
4. Pour some of it over the plate
5. What happens to the coloured water?

EXTENTSION

- Put a grape in the freezer until it is frozen
- Take the grape out once it's frozen.
- PREDICT what will happen if you out the frozen grape into a glass of water
- Dip the grape into a wine glass of water (water straight from the tap)
- What happens?

THE SCIENCE BEHIND THE EXPERIMENT

Part A: Liquid that has cooled down to a temperature below it's freezing point is called supercooled.

Part B: An icy stalagmite starts growing. The ice on the plate serves as a crystallization nucleus for the supercooled water.

Extension: Fluffy ice crystals start growing on it.