unit 5D

Melting icebergs

With a little preparation the day before, you can show that water moves as its temperature changes.

In the classroom

What you need

Some pre-prepared ice cubes with a little added food colouring. (Note that water with food colouring added takes longer to freeze.) You will also need a plastic pop bottle and some warm water.

What you do

Cut the top off the plastic bottle – to make it easy to insert the ice cube – and fill it with warm water.
Drop one of the coloured ice cubes into the warm water.
Invite the children to observe what happens.

What happens

The coloured ice cube floats on the surface and begins to melt. The food colouring makes the melted ice (water) visible as it sinks through the warm water. When it reaches the bottom of the bottle, it rises again, leaving behind a 'J' or 'U' shape the colour of the ice cube.

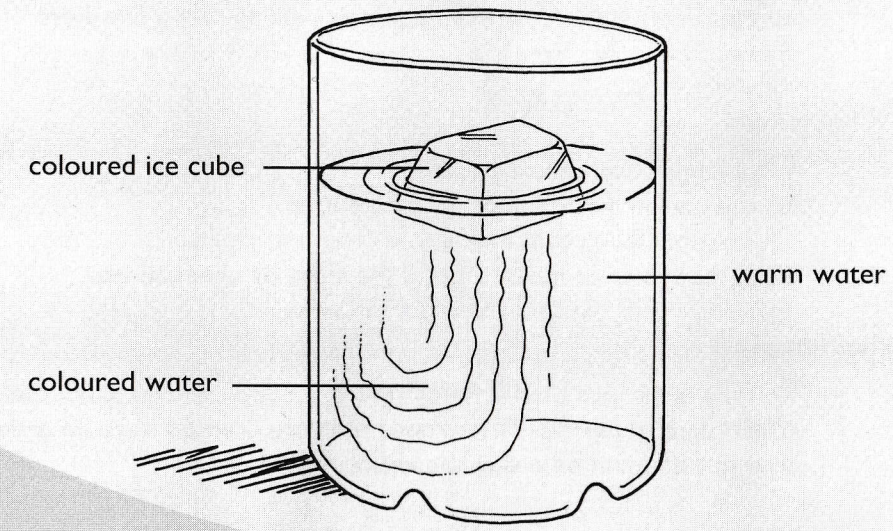
Background information

Why it happens

As the ice melts, it turns into water. Because this water is cooler than the warm water, it is more dense and so heavier. As a result, the coloured water sinks. But as it sinks, it warms up, becomes less dense and so rises again.

By the way

Make sure the children understand that ice floats on water. Ice has a fixed solid structure that makes it less dense than water. As the ice cube continues to melt, amazing patterns, the colour of the ice cube, fill the bottle.



Curriculum links

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