# **COLOURED ICE**

## **ACTIVITY**

# TIME NEEDED

 $1_{\rm hour\, plus} 10_{\rm mins\, preparation\, the\, week\, before}$ 



### Instructions:

- 1. Prepare for this activity by making some coloured ice cubes with water and a little food colouring.
- 2. When the cubes are frozen ask the young people to take a really close look. Notice that the food colouring is no longer evenly mixed in the water.
- 3. Fill two identical glasses with water. To one, add two tablespoons of table salt and stir until dissolved. Table salt contains an anti-caking agent that may make the water look cloudy.
- 4. Pop a coloured ice cube in each glass and watch the show unfold.
- 5. In fresh water, the melted water from the ice cube goes down, then rises again and mixes with the water in the glass. The story is very different in the glass with salt water. Here, the coloured melted ice floats on top of the salt water.

#### **FURTHER IDEAS:**

Try using different food colouring when making the ice cubes and then mixing the colours when you put the ice cubes into the two different glasses.



### You will need

- Freezer
- Table salt
- Ice cube tray
- Two glasses
- Tap water
- Tablespoon
- Food colouring



# How it works:

As the food colouring sinks in the fresh water, it is a big blob and so is heavier. The big blob then disperses in the water, spreading out and becoming lighter—it then floats back up to the top. The salt water is denser than the coloured water and so always stays on the bottom.

# Did you know?

Anti-caking agent is an additive placed in table salt to prevent the formation of lumps