

Make an ice lantern

Add a welcoming light to any outside space during the cold, dark winter months.

What you need

- A two-litre plastic bottle
- Scissors
- Plastic cup
- Sticky tape
- Winter foliage
- Jug
- Water
- Freezer
- A candle or a tea light



TOP TIP

Leaving your lantern to defrost for a few minutes when it comes out of the freezer will make it easier to remove the cup and bottle base.

DID YOU KNOW?

The Finnish town of Paakki decorates its roads with thousands of ice lanterns from Christmas Day until New Year's Eve.



1 Carefully cut a used two-litre plastic bottle in half using scissors. Ask an adult to help you.



2 Stick four lengths of sticky tape to the inside of the plastic cup. Leave about 5cm overhanging the rim.



3 Put the cup inside the bottle base, leaving a gap all the way around. Fix in place with the sticky tape.



4 Cut some attractive foliage from outside. Trim so that each piece is no longer than about 15cm.



5 Arrange the greenery in the gap between the cup and the bottle base.



6 Pour water into the gap between the cup and the bottle base. Fill to around 1cm from the top.



7 Place the bottle base upright in the freezer. After several hours, your lantern will be frozen solid.



8 Use scissors to carefully cut away the cup and bottle base, to reveal the foliage-filled ice lantern.



9 Ask an adult to help light a candle and place it inside your ice lantern.

How does it work?

In this experiment, you turn water into ice and trap the winter foliage inside. Ice is the solid state of water. It forms at temperatures below 0°C. Ice is an unusual substance in many ways. It expands when it freezes. This means that – unlike many other substances – the solid (ice) floats in



the liquid (water). You may notice that your fingers stick to the ice when you remove the lantern from the freezer. This is because moisture on your skin freezes, sticking it to the ice. Use a little warm water when handling the lantern to stop your fingers getting glued to it.

You might also find that the ice lantern becomes slippery. This happens when ice melts a little. The thin layer of liquid makes the surface feel wet and is also slippery (this is why ice skates slide so easily across ice). If it is cold enough outside, your ice lantern will stay frozen.