



Describe freezing and melting

Investigate how the temperature of wax changes as it cools.

Equipment

- Wax
- Test tube
- 2 x beakers
- Hot water
- Thermometer
- Stopwatch

Method

1. Put shavings of wax into a test tube
2. Place the test tube into a beaker of hot water
3. Wait for the wax to melt completely
4. Take the test tube out of the water and place it into the empty beaker
5. Record the temperature of the wax by placing the thermometer into the test tube
6. Record the temperature of the wax every 30 seconds
7. When the temperature stays the same for a long time, the wax has frozen

Time	Temperature (°C)
0 minutes 0 seconds	
0 minutes 30 seconds	
1 minute 30 seconds	
2 minutes 0 seconds	
2 minutes 30 seconds	
3 minutes 0 seconds	
3 minutes 30 seconds	
4 minutes 0 seconds	



Describe freezing and melting

Answer these questions about changing state.

1. What happens to the particles in a solid when the solid melts?

2. What happens to the particles in a liquid when the liquid freezes?

3. Draw what the particles are doing when a solid changes state to a liquid.

A large, empty rounded rectangular box with a dark blue border, intended for drawing the particle behavior during a state change.

Stretch

Oxygen is a gas found in the air, does that mean it becomes a gas at a low temperature, or a high temperature?

Challenge

What would cause a material sublime, rather than melt?