Thursday 25th February

Science - Investigating thermal insulators

Household items to support learning:

- · Two ice cubes of the same size.
- A piece of flexible material such as bubble wrap or a cleaning cloth.
- · Scissors and a ruler.

Warm-up

Imagine that you have just made a snowman. How could you stop it from melting? Look at the cartoon below.

Which child do you agree with?



We are going to investigate how quickly an ice cube melts with or without a 'jacket' on.

- It is hard to investigate a snowman without any snow!
- Instead, you can use an ice cube and bubble wrap as a model snowman and jacket.

Ask an adult to work with you.

You will need:

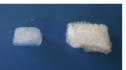
- Two ice cubes of the same size.
- A piece of bubble wrap (or cloth).
- Scissors, a ruler and a clock.





- Take the two ice cubes out of the freezer. Measure and record their lengths in mm.
- 2. Cut a 15-20 cm square piece of bubble wrap or cloth.
- Wrap one ice cube in the bubble wrap or cloth. Leave the second ice cube uncovered.





- 4. Put the ice cubes in the same place for 20 minutes.
- Unwrap the 'jacket'. Measure the length of both ice cubes. Wrap up again and leave for another 20 minutes.
- 6. Repeat the measurement after 40 and 60 minutes.

Record your results in the following table -

Time in minutes	Length of ice cube in mm	
	without a jacket	with a
		jacket
0 (start)		
20		
40		
60		

Discuss with your grown-up -

Which ice-melted the quickest?

What do you think the reasoning is for this?