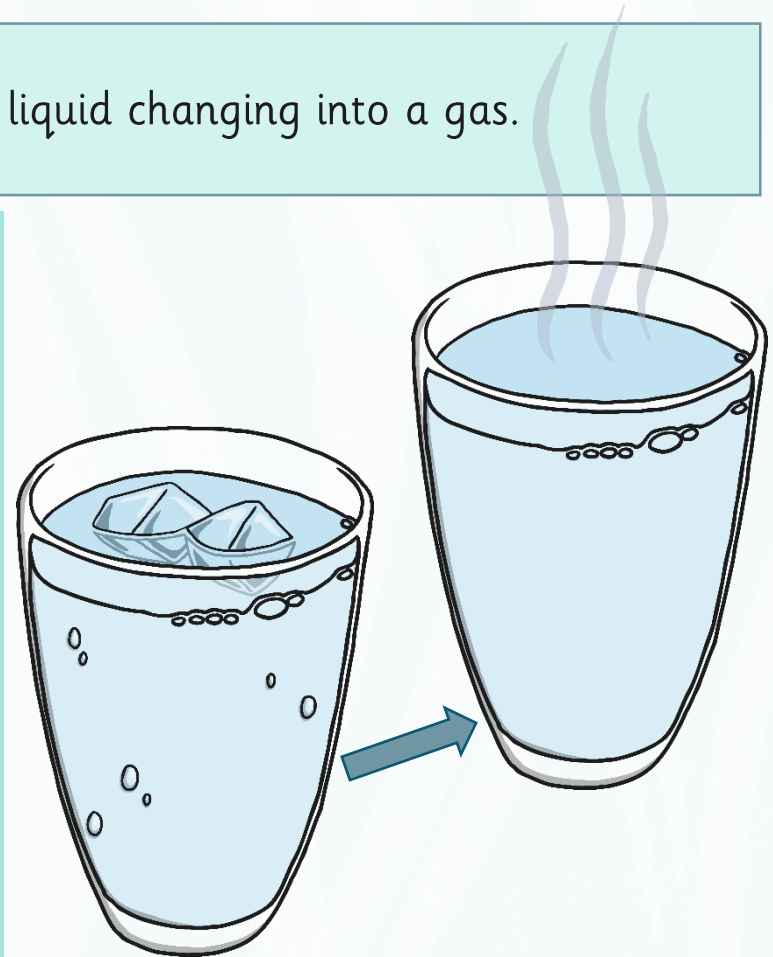


How Do Wet Clothes Dry?

Evaporation is the process of a liquid changing into a gas.

When clothes dry on the washing line, it is evaporation that causes the liquid on the wet clothes to turn into gas, leaving the clothes dry.

But how is the water evaporated from the wet clothes? Around the room are some children's ideas about what makes this happen. Have a look at each statement, think about whether you agree or disagree with it, and write your ideas around it.



How Do Wet Clothes Dry?

This boy has the answer!

The particles in a liquid have energy and are moving around each other quite fast. Some of the particles move so quickly that they turn into a gas and move away from the liquid.

This happens quickly if the liquid is boiling, but when clothes are drying it is not that hot so I think it just happens slower. Eventually all the particles will have changed into a gas and the clothes will be dry!



How Do Wet Clothes Dry?

When clothes are hung on a washing line to dry, they are exposed to heat. They are not boiling, but there is some heat.

The particles in the liquid water are moving around and over each other, and some particles move faster than others.

These particles move so fast that they change state, turning into water vapour. The particles of water vapour move away from the clothes, spreading out into the air. The particles don't turn into air!

Eventually, if the clothes are left on the washing line for long enough, all the particles of liquid water will change state into gaseous water vapour. The water will have evaporated and the clothes will be dry.



Does the Temperature Affect How Fast Towels Dry?

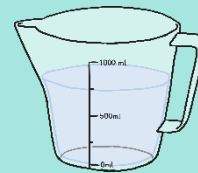
You will need access to the following equipment:



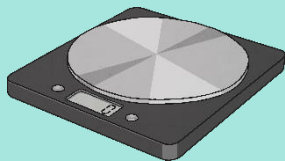
three tea towels



water



measuring jug



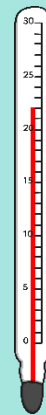
scales



washing lines



a clock



thermometer

Does the Temperature Affect How Fast Towels Dry?



You will need to decide how to use the equipment to answer this question.

You will also make a prediction about what you think the answer will be.



You must think about how you will make sure each towel is equally wet at the start of the investigation. If one towel is completely wet through but another is just damp then you won't get reliable results!








You should also think carefully about how you will be able to tell how dry the tea towels are after they have been hung up on the washing lines for some time. Will you feel them, observe them, measure their temperature, find their weight, or something else?

Your Task: Carry out the investigation below and record your results in a table.

Evaporation investigation

Investigation: Does the temperature affect how fast towels dry?

You can use the following equipment:

3 tea towels 	water 	measuring jug 	clock 
weighing scales 	three washing lines 		thermometer 

What will you do to find the answer to the question?

1. How will you get the towels wet?
2. Where will you hang the towels?
3. When will you check the towels?
4. How will you know how dry they are? What will you measure or observe? (if you choose to use the scales, you must weigh the tea towels at the start of the investigation)
5. How will you make sure your investigation is reliable? Think about what you will keep the same and o e things that you will change.

Write your prediction. Do you think the temperature will affect how quickly the towels dry? Can you explain why you think this?

Carry out your investigation and record your results in your own table like the one below.

	Temperature it was hung up in	How wet it was at the start of the investigation	How wet it was at the end of the investigation
Towel 1			
Towel 2			
Towel 3			