

States of Matter Revision Term 3

Name:- _____ Date:- _____ Class/Sec:- _____

- Q1.** (a) It is cold and there is snow and ice on the pavement.



What word describes the change of water into ice?



.....

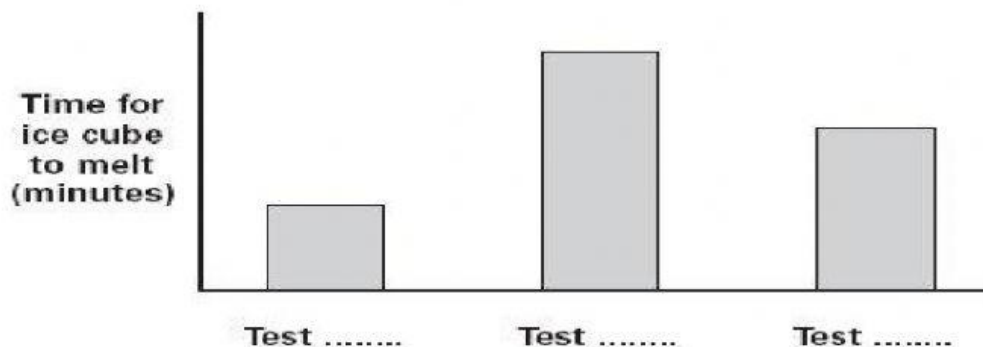
- (b) Sakra puts three ice cubes on three separate dishes. She leaves one uncovered, she covers one with a tablespoon of salt and one with a tablespoon of flour.

Ben and Sakra record how long it takes each ice cube to melt.

Test	A	B	C
Description	 uncovered ice cube	 ice cube with salt	 ice cube with flour
Time for ice cube to melt (minutes)	100	40	130

Sakra and Ben draw a graph of their results.

Complete the labels by writing **A**, **B** or **C** under each bar on the graph below to name which test each bar shows.



- (c) Ben says that flour seems to make the ice melt more slowly.

Tick **ONE** box to show a possible reason for flour making ice melt more slowly.

Flour lets heat pass through quickly.

☐

Flour dissolves ice.

☐

Flour is at a lower temperature than ice.

☐

Flour insulates ice.

☐

- Q2.** (a) Some children have washed a jumper.



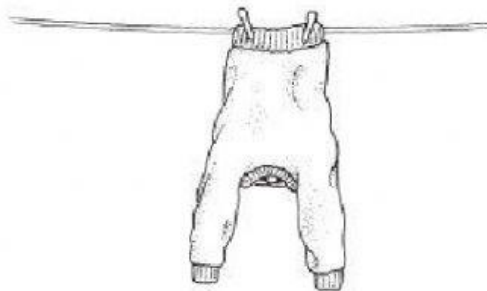
Why does the jumper feel heavier after it is washed?



.....

- (b) The children want to find out how long the jumper takes to dry.

They hang the jumper up to dry.



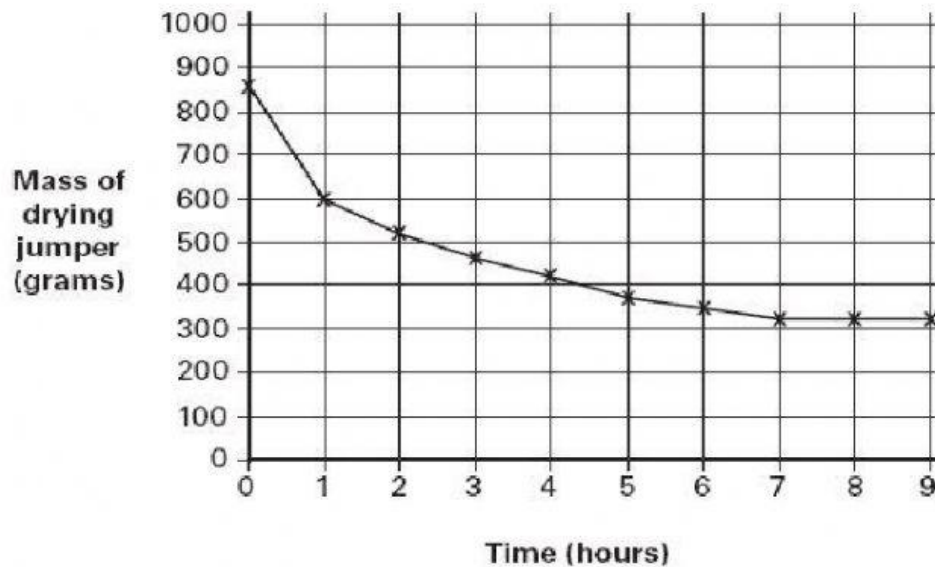
Name the process that completely dries the jumper.



.....

- (c) The children weigh the jumper every hour.

They make a graph of their results.



How many hours did the jumper take to dry?

.....hours

- (d) The children repeat their test the next day. They wash and dry the same jumper in the same way. The jumper dries more quickly.

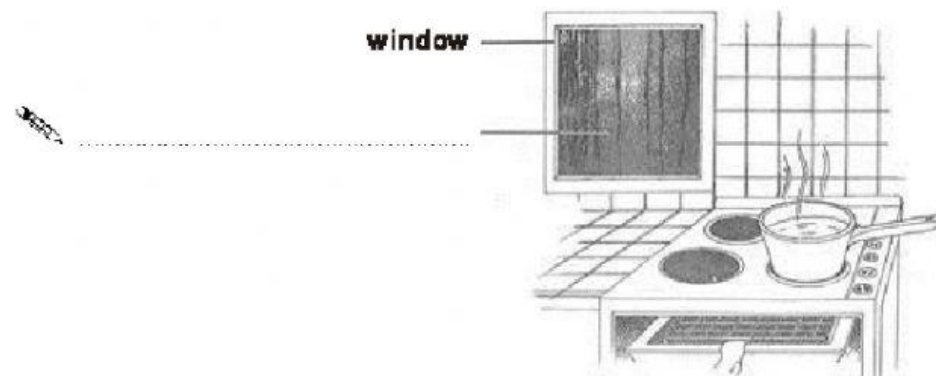
Give **ONE** possible reason why the jumper dries **more quickly** when they repeat their test.

.....

Q3. Layla watches some water boiling near a window. The picture shows what she can see on the window.

- (i) Write the missing label for the picture below by choosing from the words in the box below.

water vapour condensation steam smoke

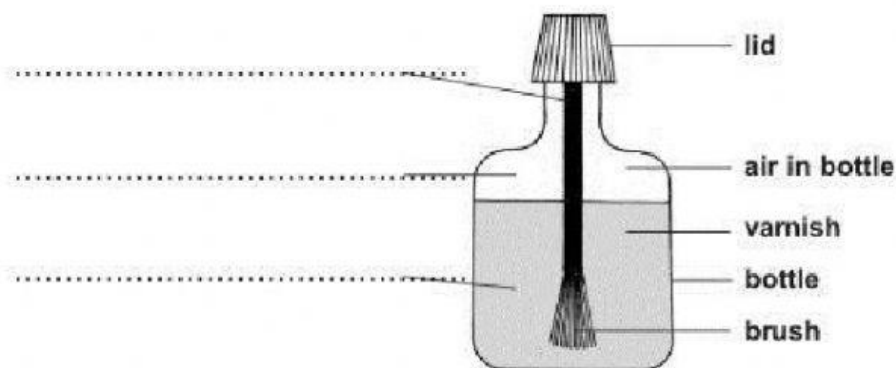


- (ii) Why does the level of the water inside the saucepan go down if the water continues to boil?

.....

Q4. (a) Lorna has a bottle of nail varnish.

Write **solid**, **liquid** or **gas** to label each part of the diagram.

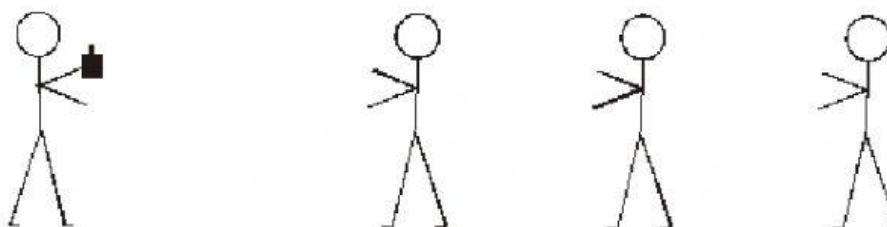


- (b) Lorna stands at the front of the classroom.
She takes the lid off the nail varnish bottle.

The table below shows the time it took for the smell of the varnish to reach different children.

Child	Time taken to smell varnish (seconds)
A	20
B	5
C	12

Complete the diagram below by writing **A**, **B** or **C** on each line to show the position of each child.



Lorna with

nail varnish



- (c) Water can be a solid, a liquid or a gas.

Draw **THREE** lines to match the name given to water when it is a solid, a liquid and a gas.

ice

solid

water

liquid

water vapour

gas

- (d) Answer the questions in the table by ticking the correct box in each row.



Question	Solid	Liquid	Gas
Which forms during evaporation?			
Which keeps its own shape?			
Which forms during condensation?			
Which spreads out to fill any sized container?			

- Q5.** (a) Megan has three cups. There is a solid in one cup, liquid in another, and gas in another.

Megan writes a description of what is in each cup.

Draw **THREE** lines to match solid, liquid and gas to the best description of what is in each cup.

solid

I cannot see anything inside the cup.

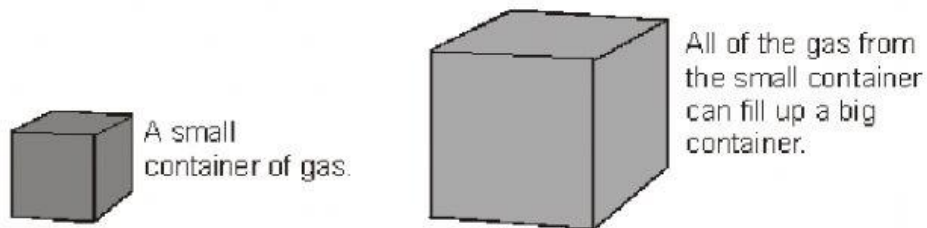
liquid

I cannot pour the material out of the cup.

gas

When I move the cup, the material changes shape.

- (b) Megan's teacher says gases spread out to completely fill up any container.



Write **yes** or **no** in each row to complete the table.

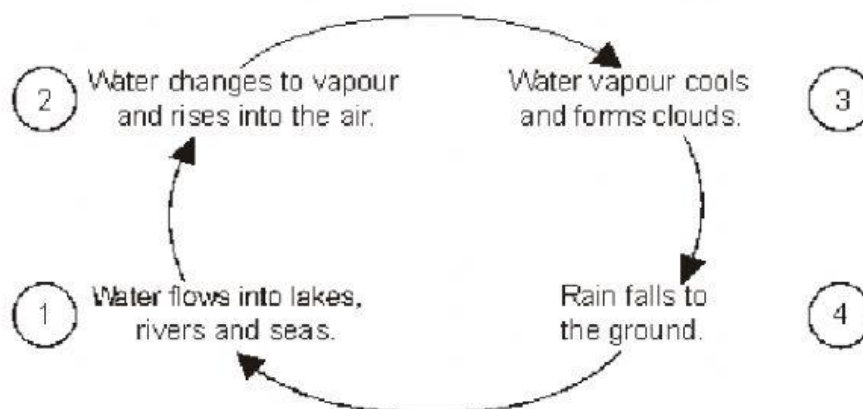
	Do they spread out to completely fill up any container?
Gases	yes
Liquids	
Solids	

- Q6.** (a) Evaporation and condensation are changes that happen in the water cycle.

Are evaporation and condensation reversible? Write **yes** or **not** on each row.

Change	Is the change reversible?
evaporation	
condensation	

- (b) This diagram shows the water cycle.



In which stage of the water cycle above does condensation occur?
Tick **ONE** box.

1 ☐ 2 ☐ 3 ☐ 4 ☐

(c) If the temperature is very cold, the rain cools down and changes.

What change will happen to the rain if it gets very cold?

.....

Q7. (a) Jamal is thinking about how to keep ice cubes from changing into water on a hot day.

Jamal says 'I think if you put the ice cubes inside lots of plastic bags they will stay frozen for longer.'

Tick **ONE** box to show what sort of statement Jamal has made.

an observation

☐

a prediction

☐

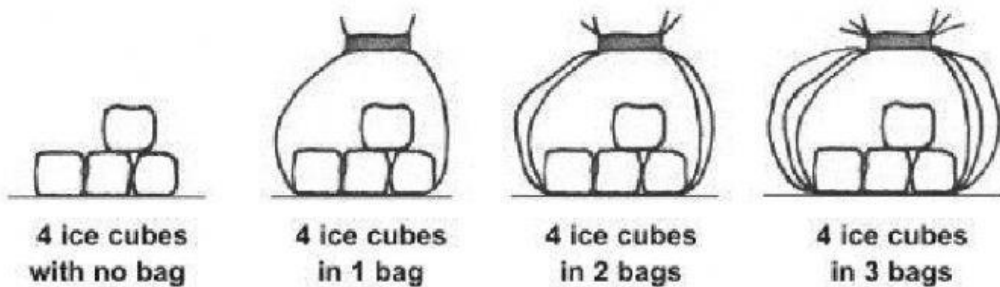
a conclusion

☐

a measurement

☐

(b) Jamal puts four ice cubes in different numbers of plastic bags.



He records the time it takes the ice cubes to change to water.

Name the process that describes the change from ice to water.

.....

(c) Jamal records his results in a table.

Number of plastic bags	Time for ice to change to water (minutes)
0	140
1	160
2	205
3	225

Choose **ONE** word from the box below to complete the sentence about the plastic bags.

dissolved condensed heated insulated evaporated

The table shows that the ice is by the plastic bags so that the ice changes to water more slowly.

(d) Tick **ONE** box to show the temperature of water when it changes to ice.

-10°C ☐

0°C ☐

10°C ☐

100°C ☐

Q8. (a) When a candle is lit, some changes happen.



Some of the wax melts.

Some of the wax burns.

Are the changes in the table reversible?
Write **yes** or **no** in each row.

Change	Is the change reversible?
The wax melts.	
The wax burns.	

(b) Write **true** or **false** next to each statement below.

True or false?

-  The wax must be heated to melt.
- When a solid melts it changes into a gas.
- Temperature shows how hot or cold something is.

Q9. (a) Scott makes ice cubes.

He pours water into an ice cube tray.



Scott puts the ice cube tray into the freezer.

The temperature of the water changes when it is in the freezer.

What happens to the temperature of the water after it is put in the freezer?



(b) Name **ONE** piece of equipment Scott could use to measure the temperature of the water.



(c) The water in the ice cube tray freezes and becomes ice.

Write **true** or **false** next to each statement about freezing.

True or false?

-  Water freezes at 100°C.
- Freezing water is a reversible change.
- Freezing is a change from solid to liquid.