Practice Question Set For GCSE
Subject : Physics
Paper-2 Topic : 14_Particle Model

Name of the Student:_____
Max. Marks : 14 Marks **Time : 14 Minutes**

Q1.

Answer the question with a cross in the box you think is correct ☒ . If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒ .

Which of these means changing state from solid directly to gas?

(1)

- ☐ **A** condensing
- ☐ **B** freezing
- ☐ **C** melting
- ☐ **D** sublimating

(Total for question = 1 mark)

Q2.

An electric heater is used to heat some water.

Figure 8 shows the experimental setup used.

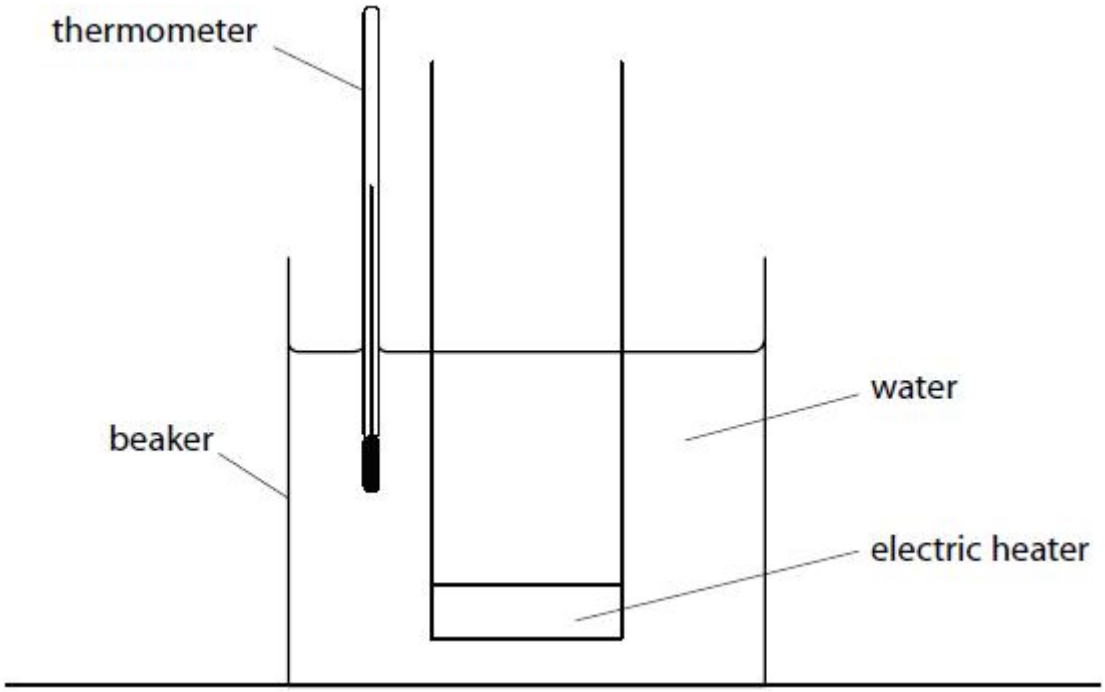

Figure 9 shows the energy transferred by the electric heater in 1 second.

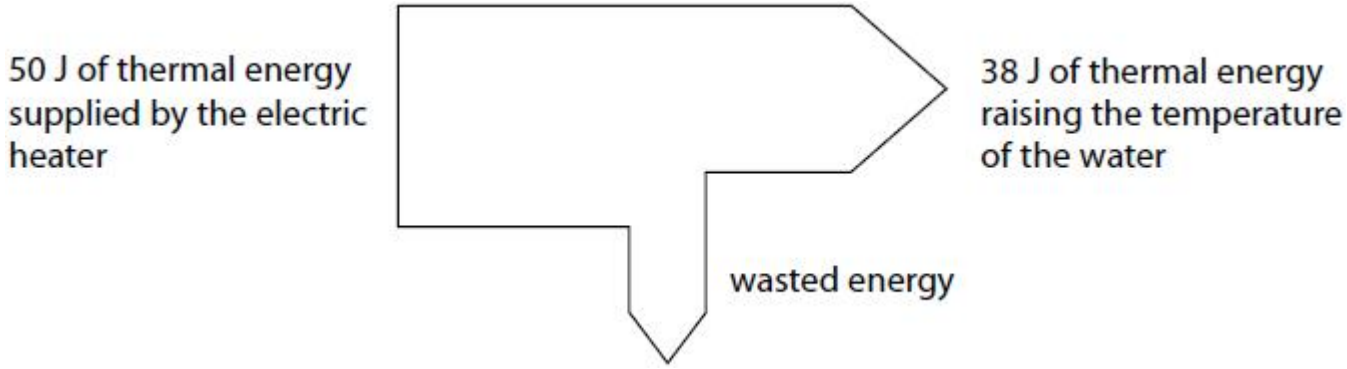

Figure 9

Explain **one** way the experiment can be improved to reduce the amount of wasted energy.

(2)

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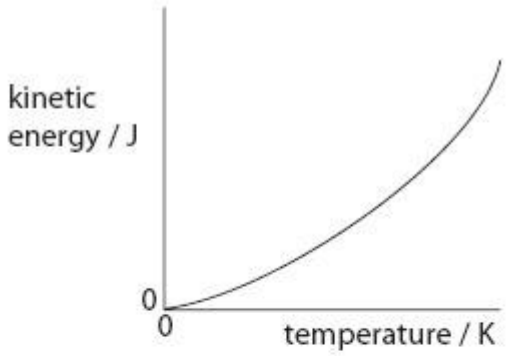
(Total for question = 2 marks)

Q3.

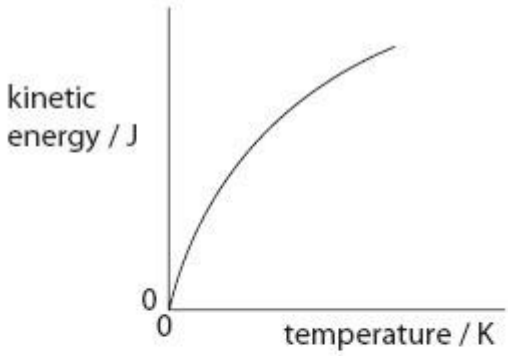
Which graph shows the way in which the average kinetic energy of the molecules of a gas changes with temperature?

Put a cross (☒) in the box next to your answer.

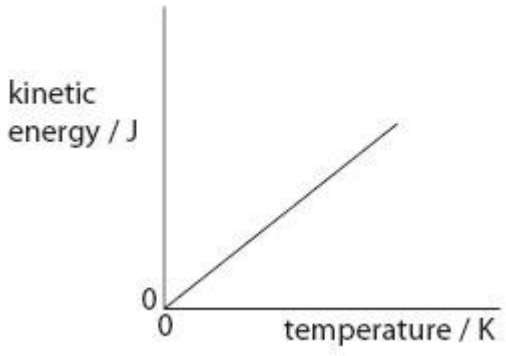
(1)



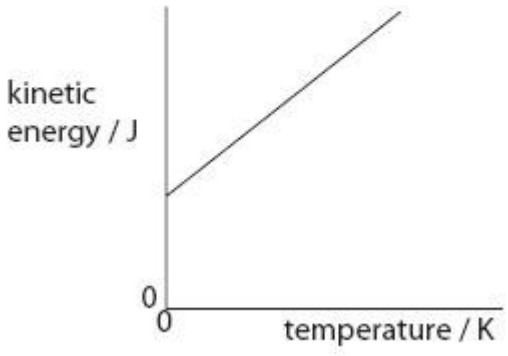
☐ **A**



☐ **B**



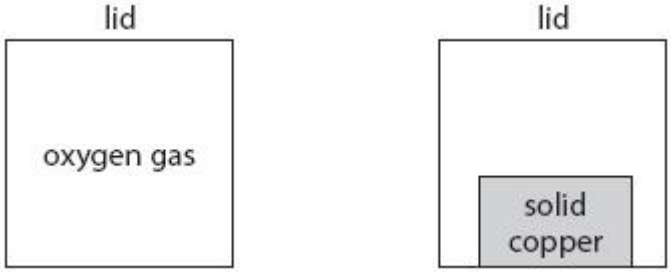
☐ **C**



☐ **D**

Q4.

* The diagrams show a block of solid copper and some oxygen gas in two closed containers.



The oxygen exerts a pressure on the lid of its container.
The copper does not exert a pressure on the lid of its container.
Explain, using kinetic theory, why the oxygen exerts a pressure on the lid but the copper does not.

(6)

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Q5.

Kinetic theory describes the movement of particles in the three states of matter.

Gas is one of the states of matter.

(i) Name the other two states of matter.

(2)

1

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2

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(ii) Complete the sentence by putting a cross (☒) in the box next to your answer.

The average kinetic energy of the particles in a gas is directly proportional to

(1)

- ☒ **A** the pressure of the gas
- ☒ **B** the temperature of the gas measured in degrees Celsius
- ☒ **C** the temperature of the gas measured in Kelvin
- ☒ **D** the volume of the gas

Q6.

Which row in the table is correct?

	particles in a solid	particles in a gas
☒ A	move freely	move freely
☒ B	move freely	vibrate about fixed positions
☒ C	vibrate about fixed positions	move freely
☒ D	vibrate about fixed positions	vibrate about fixed positions

(1)

(Total for question = 1 mark)