

# Particle Model and Pressure

## Question Paper

Level	GCSE (9-1)
Subject	Combined Science: Trilogy - Physics
Exam Board	AQA
Topic	6.3 Particle Model of Matter
Sub-Topic	Particle Model and Pressure
Difficulty Level	Bronze Level
Booklet	Question Paper

Time Allowed: 6 minutes

Score: /6

Percentage: /100

Grade Boundaries:

**Q1.** Density can be explained using the particle model.

(a) What is the unit of density ( $\rho$ )?

Tick **one** box.

joules, J

☐

joules per kilogram, J / kg

☐

kilograms, kg

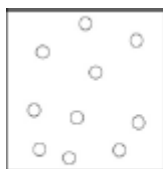
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kilograms per metre cubed,  
kg / m<sup>3</sup>

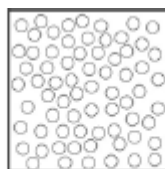
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(1)

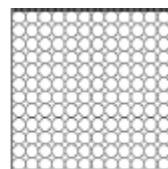
(b) The figure below shows particles of the same substance in three states of matter.



Gas



Liquid



Solid

Use the figure above to explain why the solid has the highest density.

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.....

.....

.....

(2)

(c) Complete the sentences.

Use answers from the box.

downwards	kinetic	nuclear	potential	randomly	slowly
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The particles in a gas are constantly moving.

The particles move .....

When the temperature of the particles in a gas is increased

the particles have more .....energy .

(2)

(d) A gas is put into a closed container.

The container and the gas inside it are heated.

What will happen to the pressure inside the container?

.....

(1)

(Total 6 marks)