3.3 Particle Model of Matter: 10-minute Pack

AQA 8463 · Calculator allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Which of these is a correct unit for density?

- ☐ A) kg
- ☐ B) kg/m^3
- ☐ C) m^3
- ☐ D) N

(Total for Question 1 is 1 mark)

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2 Density is a property of a material that links its mass to the volume it takes up.

(a) State what is meant by the density of a material. **(1)**

(b) Write down the equation that links density, mass and volume. **(1)**

.....

(c) State the standard SI unit used for density. **(1)**

(Total for Question 2 is 3 marks)

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3 Substances change state when they are heated or cooled. Give the correct name for each change of state described below.

(a) A solid changing into a liquid. **(1)**

(b) A liquid changing into a gas throughout the liquid, at its boiling point. **(1)**

(c) A gas changing directly into a liquid. **(1)**

(d) A solid changing directly into a gas, without becoming a liquid. **(1)**

(Total for Question 3 is 4 marks)

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Mark scheme · 3.3 Particle Model of Matter: 10-minute Pack

Question 1

B cao **B1**

Answer: B (kg/m^3)

Question 2

(a) the mass per unit volume of a material, oe **B1**

(a) Answer: Density is the mass per unit volume of a material.

(b) density = mass / volume, oe **B1**

(b) Answer: density = mass / volume

(c) kg/m^3 **B1**

(c) Answer: kg/m^3.

Question 3

(a) melting **B1**

(a) Answer: Melting.

(b) boiling **B1**

(b) Answer: Boiling.

(c) condensing (condensation) **B1**

(c) Answer: Condensing.

(d) sublimation **B1**

(d) Answer: Sublimation.

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