ENGLAND GCSE COMBINED SCIENCE AQA TRILOGY FOUNDATION · UNIT 20 · 10 QUESTIONS

Particle Model of Matter — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button so it can be fixed.

1 **An ice cream cone melts in the Sun. What is happening to the particles in the ice cream?**

- A they gain energy and move more
- B they lose energy and slow down a lot
- C they get smaller
- D they stop moving

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2 **A hot air balloon cools down. What happens?**

- A it bursts
- B it rises faster
- C it sinks
- D it stays still

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3 **How much energy is needed to change 3 kg of a substance from liquid to gas, if the specific latent heat is 2260000 J per kg?**

- A 3390000 J
- B 2260003 J
- C 13560000 J
- D 6780000 J

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4 **A cup of coffee cools down. Energy is transferred to the surroundings. What type of change is this?**

- A a reversible reaction
- B a neutralisation
- C a chemical change
- D an energy transfer

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5 **Glass marbles in a tray are used as a model for particles in a solid. What do the marbles show?**

- A particles move freely through space
- B particles vibrate in fixed positions
- C particles are far apart from each other
- D particles flow past each other easily

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6 **In which state do particles vibrate in fixed positions?**

- A solid
- B liquid
- C gas
- D plasma

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7 **A swimming pool holds water with a density of 1000 kg per cubic metre. What is the mass of 2 cubic metres of the water?**

- A 2000 kg
- B 4000 kg
- C 1000 kg
- D 500 kg

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8 **What happens to gas pressure when the volume falls at fixed temperature?**

- A it decreases
- B it stays the same
- C it increases
- D it becomes zero

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9 **How much energy is needed to heat 2 kg of a substance with a specific heat capacity of 900 J per kg per degree Celsius by 5 degrees Celsius?**

- A 9000 J
- B 4500 J
- C 18000 J
- D 1800 J

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10 **An object has a mass of 40 g and a volume of 10 cubic centimetres. What is its density?**

- A 4 g/cm³
- B 50 g/cm³
- C 8 g/cm³
- D 2 g/cm³

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ANSWER KEY

1. A
2. C
3. D
4. D
5. B
6. A
7. A
8. C
9. A
10. A

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