ENGLAND GCSE PHYSICS OCR GATEWAY HIGHER · UNIT 1 · 10 QUESTIONS

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 to let Brett know so he can fix it.

1 **A swimming pool is filled with water. What is the density of water?**

- A about 100 kilograms per cubic metre, roughly
- B about 10 kilograms per cubic metre
- C about 1 kilogram per cubic metre
- D about 1000 kilograms per cubic metre

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2 **Glass marbles are shaken in a tray. What does this model?**

- A particles gaining energy
- B particles bonding together
- C particles disappearing completely
- D particles freezing into place

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

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

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4 **How much energy is needed to heat 1 kg of a substance with a specific heat capacity of 900 J per kg per degree Celsius by 10 degrees Celsius?**

- A 18000 J
- B 9000 J
- C 900 J
- D 4500 J

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5 **A thermometer measures temperature in degrees Celsius. What is the freezing point of water on this scale?**

- A 0
- B 100
- C 10
- D 32

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6 **A 5 kg block has a specific heat capacity of 100 J/kg degrees Celsius. Its temperature rises by 10 degrees Celsius. How much energy is needed?**

- A 2500 J
- B 5500 J
- C 10000 J
- D 5000 J

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7 **A block has a mass of 1000 g and a volume of 100 cubic centimetres. What is its density?**

- A 20 g/cm³
- B 13 g/cm³
- C 5 g/cm³
- D 10 g/cm³

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8 **How much energy is needed to change 5 kg of a substance from solid to liquid, if the specific latent heat is 334000 J per kg?**

- A 334005 J
- B 835000 J
- C 1670000 J
- D 3340000 J

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9 **Why does a gas exert pressure on the walls of its container?**

- A particles hit the walls
- B the walls push the gas
- C particles stick to the walls
- D gravity pulls the gas down

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10 **A cup of coffee is hot. How is energy transferred to the air?**

- A by evaporation only, from the top
- B by condensation on the cold cup
- C by radiation only, from the surface
- D by conduction and convection

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ANSWER KEY

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

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