

7G Particle model of solids, liquids and gases

Extension questions

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Answer the following questions:



Click mouse to reveal answer

- Q1. What is the smallest particle of a substance called?
- Q2. What is a group of chemically combined atoms called?
- Q3. What do you call an empty volume of space?
- Q4. What is the form of energy due to molecular motion called?
- Q5. What do you call the change of state from solid to liquid?
- Q6. What do you call the change of state from liquid to gas?
- Q7. What do you call the change of state from gas to liquid?
- Q8. What do you call the change of state from liquid to solid?
- Q9. Why does the water level in a glass near a warm radiator go down?
- Q10. What do you call the movement of one substance through another substance?
- Q11. What is the measure of how hot or cold a substance called?
- Q12. What is force divided by area called?

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Answers:

- A1. Atom
- A2. Molecule
- A3. Vacuum
- A4. Heat
- A5. Melting
- A6. Boiling
- A7. Condensation Condense
- A8. Freezing
- A9. Evaporation Evaporate
- A10. Diffusion
- A11. Temperature
- A12. Pressure

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multiple choice

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1: How are the particles in a solid arranged ?

- A Are quite far apart, free to move
 - B Are close together, vibrating
 - C Are close together, not vibrating
 - D Close together, free to move
-

2: What substance melts at 0°C , and evaporates at 100°C ?

- A Gold
 - B Oxygen
 - C Water
 - D Cheese
-

3: What are the three states of matter ?

- A Earth, wind and fire
 - B Solid, liquid and gas
 - C Solid, solution and solvent
 - D Ice, water and steam
-

4: Which is the correct explanation to why hot liquids rise to the surface ?

- A The particles become smaller
 - B The particles occupy more space
 - C The particles become lighter
 - D The particles become heavier
-

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multiple choice

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A

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C

D

2: What substance melts at 0°C, and evaporates at 100°C ?

A

B

C Water

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3: What are the three states of matter ?

A

B Solid, liquid and gas

C

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4: Which is the correct explanation to why hot liquids rise to the surface ?

A

B The particles occupy more space

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literacy in science

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Answer all the questions below:

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1) Unscramble the following words:

mosat

lidsos

icartples

ltimegn

2) Make three sentences using the following nine words or phrases:

when solids
all materials
diffusion

heat up
are made
particles

to melt
particles
spreading out

3) Match the word or phrase with the right meaning:

Particle

The spreading out of gas or liquid particles

State of matter

The basic unit of all solids, liquids and gases

Diffusion

A material can either exist as a solid, liquid or gas

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literacy in science

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complete the sentence

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Place the right word or words to complete the sentence:



Click mouse to reveal answer

good

three

randomly

diffusion

squashed

particles

fixed

volume

liquid

- a) There are _____ states of matter, solid, liquid and gases.
- b) A solid has a _____ shape and volume with stationary particles that are close together.
- c) A liquid has a fixed _____ but takes the shape of its container, with moving particles that are close together.
- d) A gas has no fixed shape or volume with particles that move _____ at high speeds.
- e) _____ is the spreading out of particles through a liquid or gas.
- f) Gases are _____ easily, because there is space between its particles.
- g) Solids are _____ conductors of heat because their particles are close together.
- h) All material is made from _____ .
- i) Sand is really a solid without a definite shape, so it behaves like a _____ .

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complete the sentence

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Place the right word or words to complete the sentence:

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liquid

- a) There are three states of matter, solid, liquid and gases.
- b) A solid has a fixed shape and volume with stationary particles that are close together.
- c) A liquid has a fixed volume but takes the shape of its container, with moving particles that are close together.
- d) A gas has no fixed shape or volume with particles that move randomly at high speeds.
- e) Diffusion is the spreading out of particles through a liquid or gas.
- f) Gases are squashed easily, because there is space between its particles.
- g) Solids are good conductors of heat because their particles are close together.
- h) All material is made from particles.
- i) Sand is really a solid without a definite shape, so it behaves like a liquid.