

IGCSE Chemistry

Name: _____ Score: _____

1. In a solid, the particles:

- ☐ slide past each other
- ☐ are closely packed and only vibrate in place
- ☐ are far apart and move fast
- ☐ do not exist

2. The change from solid to liquid is called:

- ☐ condensing
- ☐ melting
- ☐ subliming
- ☐ freezing

3. Gas pressure is caused by particles:

- ☐ colliding with the container walls
- ☐ joining together
- ☐ melting
- ☐ staying still

4. Diffusion produces net spreading of particles from a region of:

- ☐ high pressure to high temperature
- ☐ low concentration to high concentration
- ☐ high concentration to low concentration
- ☐ solid to liquid

5. A gas spreads to fill its container because its particles are:

- ☐ fixed in place
- ☐ far apart and moving quickly in all directions
- ☐ packed tightly
- ☐ not moving

6. A pure solid at fixed pressure keeps rising in temperature throughout melting.

- ☐ True ☐ False

7. Increasing the pressure on a fixed amount of gas at constant temperature increases its volume.
- ☐ True ☐ False
8. Diffusion is evidence that particles are in constant random motion.
- ☐ True ☐ False
9. Ice, water and steam are made of the same particles.
- ☐ True ☐ False
10. At fixed pressure, a pure liquid boils at a fixed temperature called its _____ point.
- _____

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1. **are closely packed and only vibrate in place**

Solids have closely packed, vibrating particles.

2. **melting**

Solid → liquid is melting.

3. **colliding with the container walls**

Collisions with the walls create pressure.

4. **high concentration to low concentration**

Random motion causes net spreading from higher to lower concentration, although individual particles move in all directions.

5. **far apart and moving quickly in all directions**

Fast, widely spaced particles fill the available space.

6. **False**

False. Temperature stays constant while solid and liquid coexist during melting; supplied energy overcomes attractions between particles.

7. **False**

False. The gas is compressed: volume decreases, the particles are closer together and wall collisions are more frequent.

8. **True**

Particles move randomly, so concentration differences gradually even out without stirring; random motion continues after mixing.

9. **True**

Only the arrangement and energy differ, not the substance.

10. **boiling**

The boiling point is specified at a stated pressure; it is not the same at every pressure.