

Solutions

Each answer shows the steps, then the **result**.

2.1

- Gas

2.2

- A change of state (melting or boiling) at constant temperature

2.3

- Liquid

3.1 B

- energy overcomes the intermolecular forces to separate the particles

3.2

(a)

- The melting point and the boiling point

(b)

- The added energy goes into overcoming intermolecular forces (changing state), not into raising the kinetic energy/temperature

3.3

- In a gas the particles are far apart with large empty spaces and negligible forces, so they can be pushed closer; in a liquid the particles are already touching, leaving little room to compress