

## **IGCSE Physics (9-1) Specification 5(c)**

### **(c) Change of state**

**Students should:**

**5.8P** explain why heating a system will change the energy stored within the system and raise its temperature or produce changes of state

**5.9P** describe the changes that occur when a solid melts to form a liquid, and when a liquid evaporates or boils to form a gas

**5.10P** describe the arrangement and motion of particles in solids, liquids and gases

**5.11P** practical: obtain a temperature–time graph to show the constant temperature during a change of state

**5.12P** know that specific heat capacity is the energy required to change the temperature of an object by one degree Celsius per kilogram of mass (J/kg °C)

**5.13P** use the equation:

**change in thermal energy = mass × specific heat capacity × change in temperature**

$$\Delta Q = m \times c \times \Delta T$$

**5.14P** practical: investigate the specific heat capacity of materials including water and some solids