



- A - solid \rightarrow temp \uparrow
- B - solid + liquid : melting
- C - liquid : temp \uparrow
- D - liquid + gv : boiling
- E - gas : temp \uparrow

$$q = m C_p \Delta T$$

(A, C, E)

C_p solid water = $2.1 \text{ J/g}^\circ\text{C}$
 C_p liquid water = $4.8 \text{ J/g}^\circ\text{C}$

$$q = m H_f$$

Heat of fusion (H_f) \rightarrow
 energy it takes to melt 1g of substance

$$H_f \text{ H}_2\text{O} = 334 \text{ J/g (B)}$$

Heat of vaporization (H_v)
 energy it takes to vaporize 1g of substance

$$H_v \text{ H}_2\text{O} = 2260 \text{ J/g (D)}$$