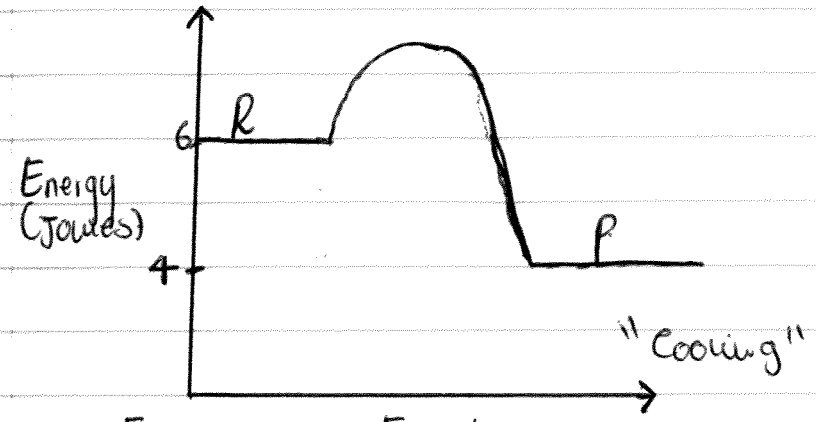
Energy Changes



- $E_{reactants} > E_{products}$
- $\Delta E < 0$
- It is an exothermic reaction

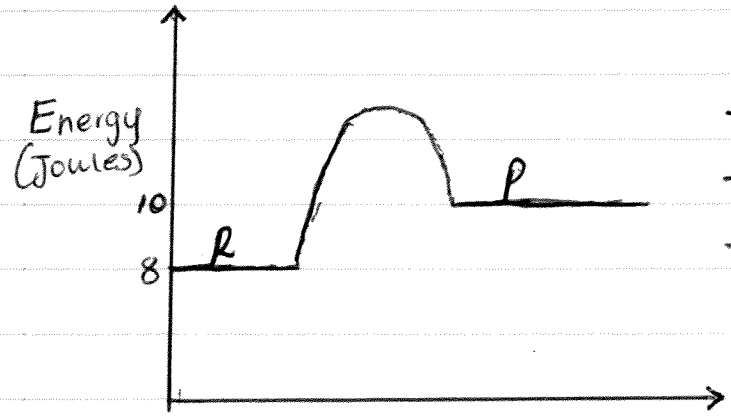
$\Delta E = E_{product} - E_{reaction}$

$= 4 - 6$

$= -2J$

$= 2J$; Energy is released

- Remember the -ve sign.
- You are cooling the contents by releasing energy.



Possible Scenarios

- Calculate energy change
- Interpret what the change means.
- finding either energy of reactants or of products given the change.
- Drawing the graph to represent the change.

- $E_{reactants} < E_{products}$
- $\Delta E > 0$
- It is an endothermic reaction.

$\Delta E = E_{products} - E_{reactants}$

$= 10 - 8$

$= +2J$

$= 2J$; Energy is absorbed

- Remember the +ve sign.
- You're heating the contents in endoth. rxn.

$Aa + Bb \rightarrow Cc + Dd \quad \Delta H > 0$

- ΔE Same as ΔH

① What is the name of the forward reaction? (→)

② What is the name of the reverse reaction? (←)