## Chapter 8 — Thermochemistry

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- Reactions either absorb heat or release it:
  - 1. Exothermic Reaction Releases heat
  - 2. Endothermic Reaction Intakes heat
- $q = cm\Delta T$ , where c is the specific heat and q is the heat/energy
- Units of specific heat are  $\left[\frac{J}{gC}\right]$
- Enthalpy  $(\Delta H)$  Reaction heat content. If  $\Delta H < 0$  the reaction is exothermic, but if  $\Delta H > 0$ , the reaction is endothermic.
- $\Delta H$  for a reaction is equal but opposite in sign for reverse.
- Hess's Law  $-\Delta H$  for a reaction is same whether it occurs directly or in a series.
  - 1. The enthalpy is the same for the following reactions:

$$A \to D$$

$$A \rightarrow B \rightarrow C \rightarrow D$$