

Enthalpy Changes and Calorimetry (Chemistry 30)

Central concept: **Enthalpy & Calorimetry**

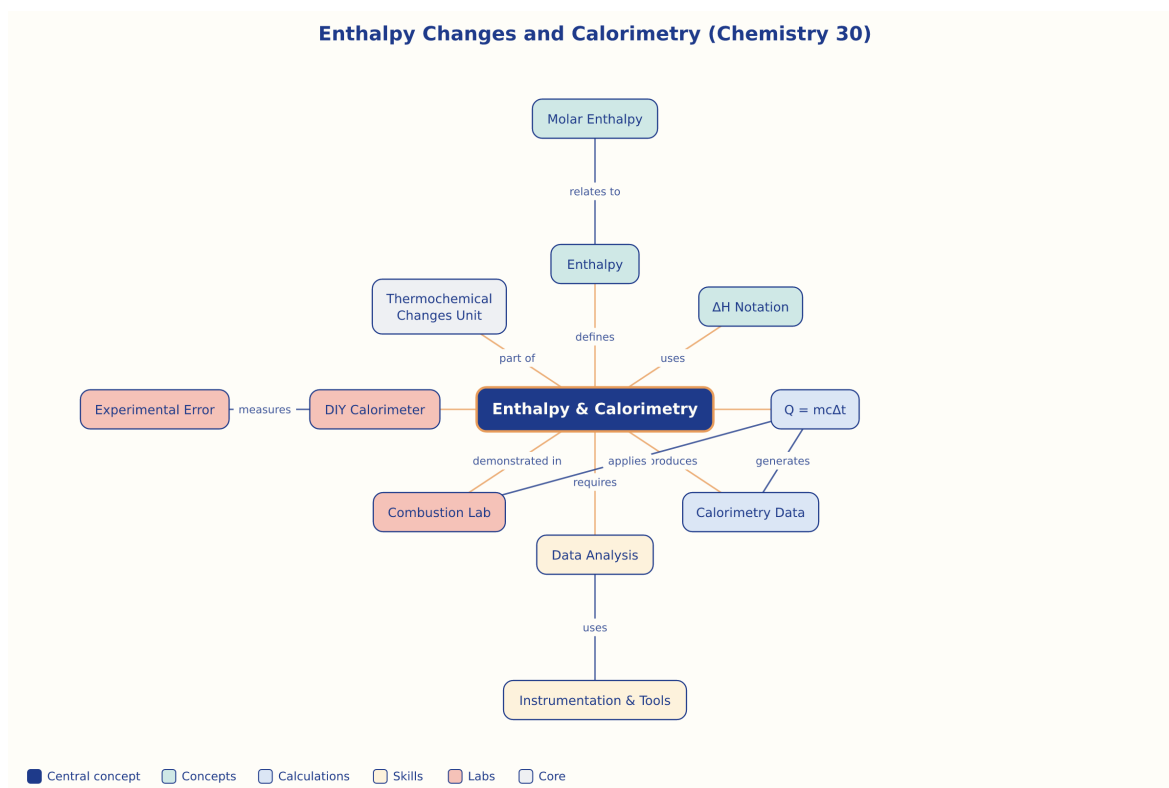
Connections

- Enthalpy & Calorimetry (defines) -> Enthalpy
- Enthalpy & Calorimetry (uses) -> 9D, æ÷F F-öà
- Enthalpy & Calorimetry (applies) -> $Q = mc\Delta T$
- Enthalpy & Calorimetry (produces) -> Calorimetry Data
- Enthalpy & Calorimetry (requires) -> Data Analysis
- Enthalpy & Calorimetry (demonstrated in) -> Combustion Lab
- Enthalpy & Calorimetry (demonstrated in) -> DIY Calorimeter
- Enthalpy & Calorimetry (part of) -> Thermochemical Changes Unit
- Enthalpy (relates to) -> Molar Enthalpy
- $Q = mc\Delta T$ (applies) -> Calorimetry Data
- Data Analysis (uses) -> Instrumentation & Tools
- DIY Calorimeter (measures) -> Experimental Error
- Combustion Lab (applies) -> $Q = mc\Delta T$

Notes

- **Enthalpy & Calorimetry:** Central topic of Unit A: Thermochemical Changes, linking heat measurement to reaction energy changes. [Resource](#)
- **Enthalpy:** Defined as the heat content of a system; molar enthalpy expresses this per mole of substance reacting. [Outcome](#), [Outcome](#)
- **9D, æ÷F F-öà:** Used and interpreted to communicate and calculate energy changes in chemical reactions. [Outcome](#)
- **$Q = mc\Delta T$:** Formula recalled and applied to analyze heat transfer between substances. [Outcome](#), [Outcome](#)
- **Calorimetry Data:** Used to determine enthalpy changes occurring during chemical reactions. [Outcome](#)
- **Molar Enthalpy:** Enthalpy change expressed per mole, defined alongside enthalpy for chemical reactions. [Outcome](#)
- **Data Analysis:** Involves analyzing data and applying mathematical models, including energy diagrams, to assess reactions. [Outcome](#)
- **Instrumentation & Tools:** Manipulating and presenting data using scientific instrumentation, calculators, or spreadsheets. [Outcome](#)
- **Combustion Lab:** Multimedia investigation measuring heat transfer from burning a nut to water. [Resource](#)
- **DIY Calorimeter:** Guided lab constructing a polystyrene-cup calorimeter and testing its precision through repeated trials. [Resource](#)
- **Experimental Error:** Calculated from repeated trial data when evaluating calorimeter performance. [Resource](#)

- **Thermochemical Changes Unit:** Broader unit covering Hess's law, molar enthalpies of formation, and energy diagrams alongside calorimetry. [Resource](#)



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