

Enthalpy Changes and Calorimetry Matching Game

Students use calorimetry to determine enthalpy changes in chemical reactions ([Outcome](#)). This game reinforces vocabulary and concepts central to thermochemical analysis: understanding enthalpy and molar enthalpy ([Outcome](#)), applying heat transfer calculations ([Outcome](#)), interpreting ΔH ([Outcome](#)), and performing calorimetry experiments ([Outcome](#)). Matching definitions to terms builds fluency with the language of energy change.

How to play

Match each term on the left to its definition on the right. Write the letter of the correct definition next to each numbered term. There are eight terms and eight definitions; each definition is used exactly once.

Column A		Column B
A. enthalpy	_____	1. heat-based
B. calorimetry	_____	2. polystyrene cup apparatus
C. thermal	_____	3. measuring thermal energy
D. combustion	_____	4. ΔH
E. exothermic	_____	5. $\Delta H, -2 \text{ kJ mol}^{-1}$
F. calorimeter	_____	6. burning
G. molar	_____	7. per mole basis
H. notation	_____	8. $\Delta H, 7 \text{ kJ mol}^{-1}$

Answer key

- **A** matches **4** (enthalpy: ΔH)
- **B** matches **3** (calorimetry: measuring thermal energy)
- **C** matches **1** (thermal: heat-based)
- **D** matches **6** (combustion: burning)
- **E** matches **5** (exothermic: $\Delta H, -2 \text{ kJ mol}^{-1}$)
- **F** matches **2** (calorimeter: polystyrene cup apparatus)
- **G** matches **7** (molar: per mole basis)
- **H** matches **8** (notation: $\Delta H, 7 \text{ kJ mol}^{-1}$)