

Enthalpy and Calorimetry Matching Game

Students will determine and interpret energy changes in chemical reactions([Topic](#)). This matching game reinforces key vocabulary and concepts: enthalpy, calorimetry, exothermic reactions, enthalpy of formation, activation energy, ΔH , $q = mc\Delta T$, and the role of reaction mechanisms ([Topic](#), [Outcome](#), [Outcome](#), [Outcome](#), [Outcome](#), [Outcome](#)). Students classify reactions by their energy profile and connect laboratory measurements to thermochemical calculations.

How to play

Match each term on the left to its definition or description on the right. Write the letter of the correct answer next to each number. You have 10 minutes.

Match the pairs

Column A		Column B
A. enthalpy	_____	1. energy barrier
B. calorimetry	_____	2. ΔH , -2 kJ mol^{-1}
C. exothermic	_____	3. $Q = mc\Delta T$
D. formation	_____	4. lowers activation energy
E. activation	_____	5. ΔH
F. notation	_____	6. enthalpy change
G. catalyst	_____	7. ΔH
H. reaction	_____	8. standard enthalpy of formation

Answer key

- **A** matches **7** (enthalpy: ΔH)
- **B** matches **3** (calorimetry: $Q = mc\Delta T$)
- **C** matches **2** (exothermic: ΔH , -2 kJ mol^{-1})
- **D** matches **8** (formation: standard enthalpy of formation)
- **E** matches **1** (activation: energy barrier)
- **F** matches **5** (notation: ΔH)
- **G** matches **4** (catalyst: lowers activation energy)
- **H** matches **6** (reaction: enthalpy change)