

Hangman: Thermochemistry and Calorimetry

In Chemistry 30, students define enthalpy and molar enthalpy for chemical reactions ([Outcome](#), [Outcome](#)) and use calorimetry data to determine the enthalpy changes in those reactions ([Outcome](#)). A key skill is the ability to analyze energy changes through data and energy diagrams ([Outcome](#)). This game reinforces vocabulary central to thermochemical calculations and calorimetry investigations, where students measure heat transfer using the relationship $Q = mc\Delta T$ ([Outcome](#), [Outcome](#)) and interpret ΔH to communicate energy changes ([Outcome](#)).

How to play

One player thinks of a word from thermochemistry or calorimetry. The other player guesses letters one at a time. Each correct letter is revealed in its position. Each incorrect guess adds a part to the hangman drawing. The guesser wins by completing the word before the drawing is finished (typically 6 to 10 incorrect guesses allowed, depending on the version you use). The guesser loses if the hangman is complete before the word is guessed.

For classroom use, one student or group can be assigned the "word keeper" role and the rest of the class guesses together, or pairs can alternate roles.

Puzzles

Round 1 (7 letters)

D _ _ _ _ _ _ _

Clue: Visual representation used to compare energy changes in reactions ([Outcome](#))

Wrong guesses: _ _ _ _ _ _ _

Round 2 (10 letters)

E _ _ _ _ _ _ _ _ _ _

Clue: Reaction that releases heat to the surroundings ([Outcome](#))

Wrong guesses: _ _ _ _ _ _ _

Round 3 (8 letters)

R _ _ _ _ _ _ _

Clue: Chemical process where bonds break and form, releasing or absorbing energy; the focus of enthalpy calculations ([Outcome](#))

Wrong guesses: _ _ _ _ _ _ _

Round 4 (11 letters)

T _ _ _ _ _ _ _ _ _ _ _

Clue: The quantity whose change (ΔH) is measured to determine heat transfer in calorimetry.

Wrong guesses: _ _ _ _ _ _ _

Answer key

- Round 1: **DIAGRAM**
- Round 2: **EXOTHERMIC**
- Round 3: **REACTION**
- Round 4: **TEMPERATURE**