

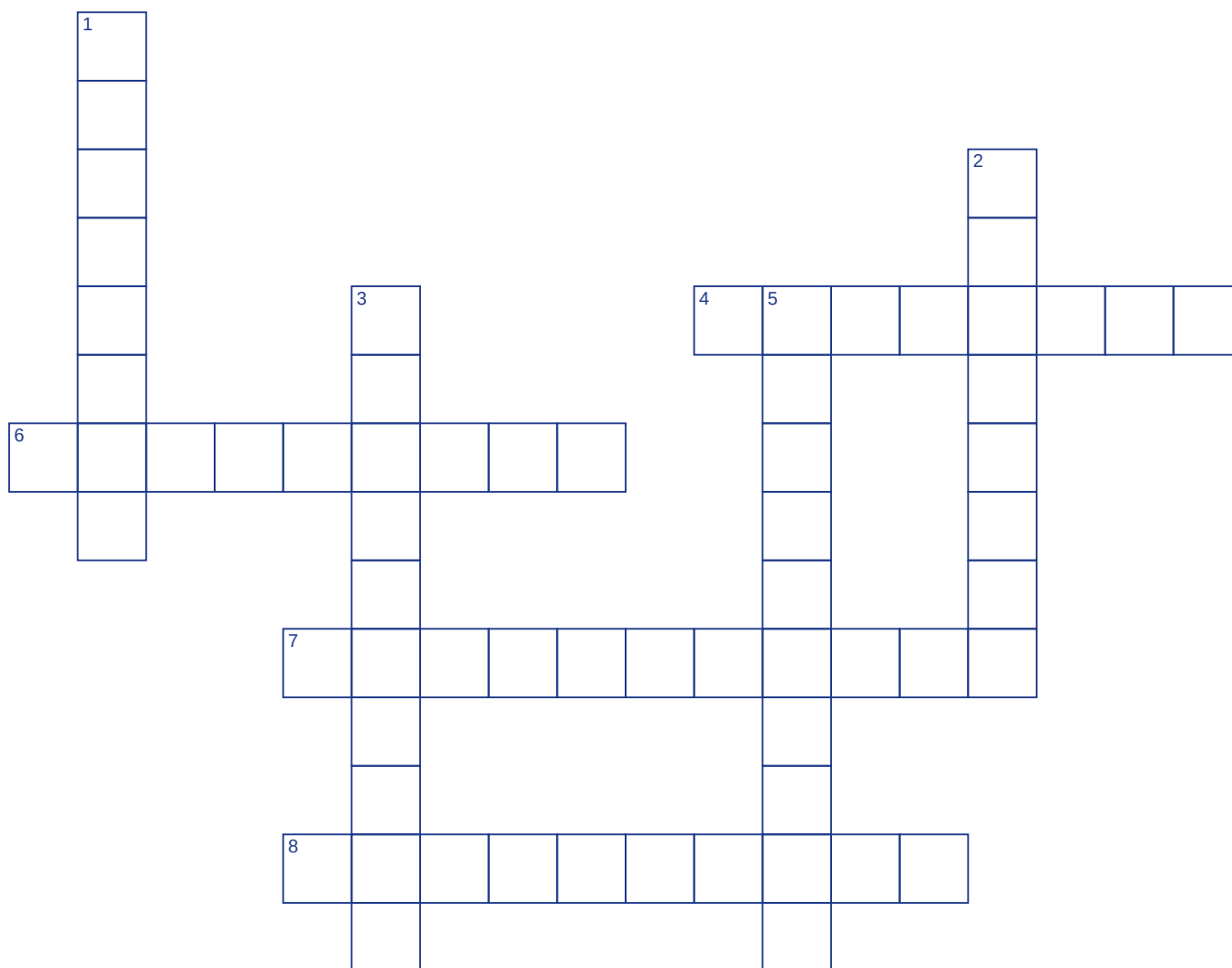
Enthalpy Changes and Calorimetry Crossword

This puzzle reviews the vocabulary of thermochemistry in Chemistry 30, where students determine and interpret energy changes in chemical reactions ([Topic](#)) and explain and communicate those changes ([Topic](#)). Terms in this puzzle include enthalpy and ΔH ([Outcome](#)), calorimetry data used to calculate enthalpy change ([Outcome](#)), activation energy shown on energy diagrams ([Outcome](#)), and the classification of reactions such as combustion as exothermic ([Outcome](#)). Use the clues below to complete the grid before checking your work against the answer key.

How to play

Fill in the grid using the numbered clues below. Each clue corresponds to a term from Unit A: Energy, Change and Systems. Write one letter per box, reading across or down as indicated by the clue number. Check spelling carefully: several terms are closely related and differ by only a few letters. Do not look at the answer key until you have attempted every clue.

Puzzle grid



Clues

Across

4. Chemical process involving breaking and forming of bonds. (8)
5. Standard enthalpy change when one mole of a compound is made from its elements. (9)
6. Experimental technique to measure heat released or absorbed in a reaction. (11)
7. Rapid reaction of a hydrocarbon with oxygen that releases energy. (10)

Down

1. Heat content of a substance at constant pressure. (8)
2. Minimum energy required for reactants to form products. (10)
4. Chemical reaction that releases energy to the surroundings. (10)

Answer key

- **1 down:** NOTATION
- **2 down:** ENTHALPY
- **3 down:** ACTIVATION
- **4 across:** REACTION
- **5 down:** EXOTHERMIC
- **6 across:** FORMATION
- **7 across:** CALORIMETRY
- **8 across:** COMBUSTION

