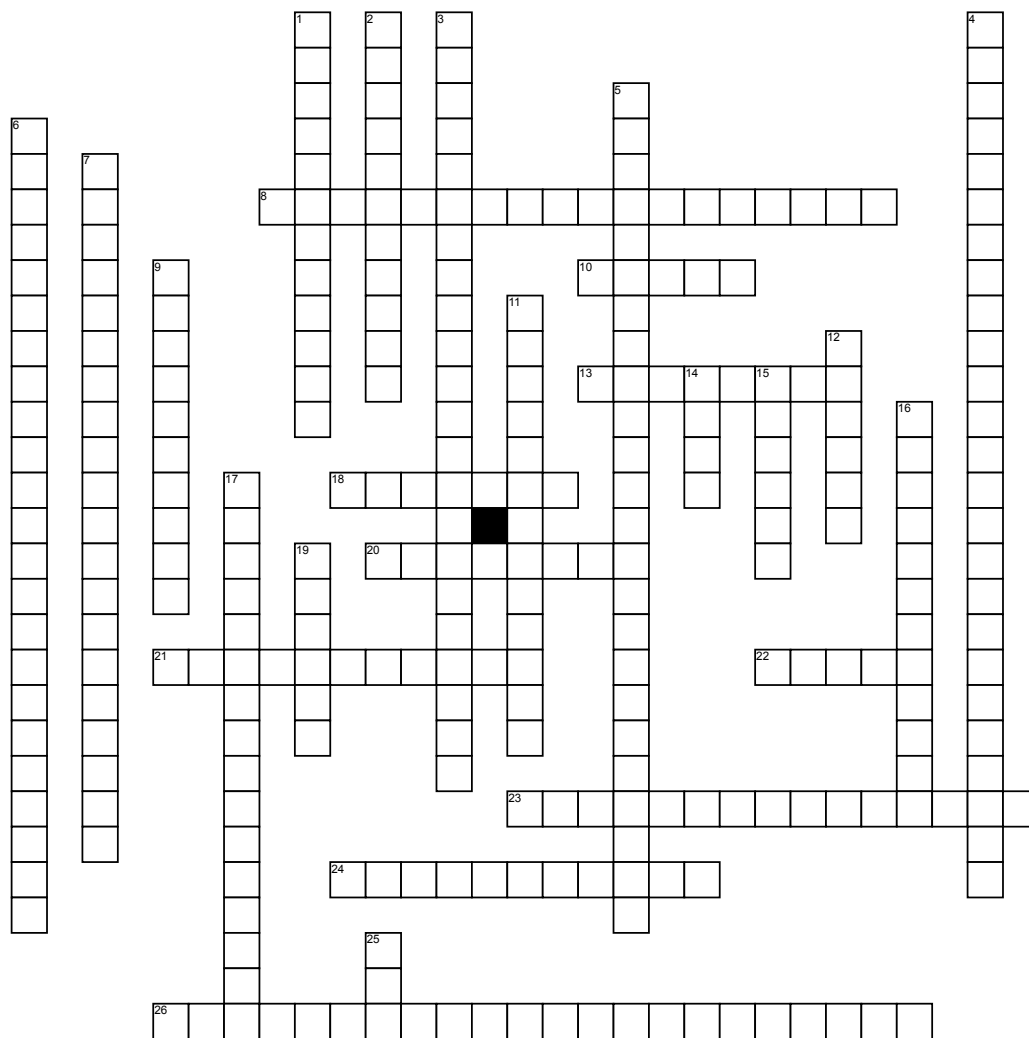


Name: _____

Thermochemistry Crossword



Across

8. the enthalpy change for a chemical equation exactly as it is written
 10. the SI unit of energy; 4.184 J equal one calorie
 13. the heat content of a system at constant pressure
 18. the quantity of heat needed to raise the temperature of 1 gram of pure water 1 degree Celsius
 20. the total amount of energy and matter
 21. an insulated device used to measure the absorption or release of heat in chemical or physical processes
 22. a form of matter that has a definite shape and volume
 23. the study of energy changes that occur during chemical reactions and changes in state
 24. a measure of the average kinetic energy of particles in matter; determines the direction of heat transfer

26. the energy required to break the bond between two covalently bonded atoms; usually expressed in kJ per mol of substance

Down

1. plot or graph wherein a substance is subjected to increasing temperature against time to measure the amount of energy it absorbs and changes state with increasing temperature
 2. a process that absorbs heat from the surroundings
 3. the enthalpy change when a substance goes from liquid to gas or vice versa
 4. in any chemical or physical process, energy is neither created nor destroyed
 5. when two objects are in contact with one another and the flow of heat ceases
 6. energy stored in chemical bonds
 7. the amount of heat needed to increase the temperature of 1 gram of a substance 1 degree Celsius

9. a process that releases heat to its surroundings
 11. the energy associated with an object by virtue of its motion
 12. a part of the universe on which you focus your attention
 14. energy that transfers from one object to another because of a temperature difference between the objects
 15. a form of matter that flows, has a fixed volume, and an indefinite shape
 16. everything in the universe outside of the system
 17. the enthalpy change when a substance goes from solid to liquid or vice versa
 19. the capacity for doing work or producing heat
 25. a form of matter that takes the shape and volume of its container; no definite shape or volume

Word Bank

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|--------------------------|-------------------------------|---------------------------|--------------|
| system | calorie | chemical potential energy | calorimeter |
| specific heat capacity | exothermic | thermodynamic equilibrium | endothermic |
| heat | kinetic energy | energy | gas |
| enthalpy of vaporization | enthalpy of fusion | enthalpy of reaction | universe |
| solid | thermochemistry | temperature | surroundings |
| liquid | law of conservation of energy | enthalpy | joule |
| heating curve | bond dissociation energy | | |