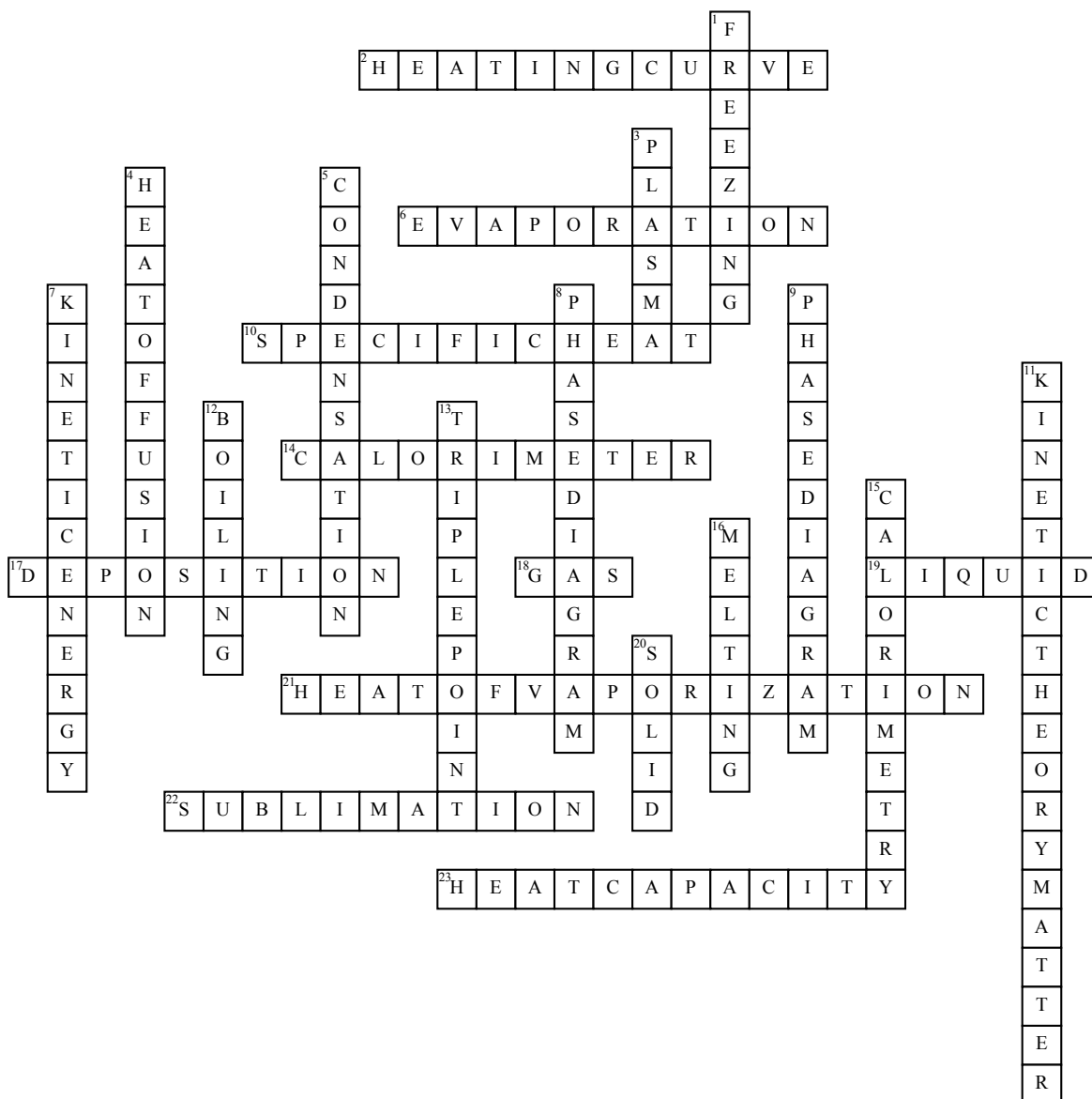


# Unit 9 : States of Matter



## Across

2. the rate a temperature changes  
6. the process of becoming a vapor  
10. the number of calories required to raise the temperature of 1 gram of a substance 1°C, or the number of BTU's per pound per degree F  
14. an apparatus for measuring quantities of heat  
17. the settling of particles or sediment onto a surface. The particles may originate from a vapor, solution, suspension, or mixture  
18. very far apart and move freely indefinite shape and indefinite volume  
19. are tightly packed, but far enough apart to slide over one another indefinite shape and definite volume  
21. heat absorbed by a unit mass of a material at its boiling point in order to convert the material into a gas at the same temperature  
22. the act, fact, or process of subliming

23. the heat required to raise the temperature of a substance one degree

## Down

1. the withdrawal of heat to change something from a liquid to a solid  
3. ionized gas. good producer of electricity and affected by magnetic fields both indefinite shape and indefinite volume  
4. heat absorbed by a unit mass of a solid at its melting point in order to convert the solid into a liquid at the same temperature  
5. the process of changing from a gaseous to a liquid or solid state  
7. the energy of a body or a system with respect to the motion of the body or of the particles in the system  
8. a change from one state (solid or liquid or gas) to another without a change in chemical composition

9. a diagram representing the limits of stability of the various phases in a chemical system at equilibrium, with respect to variables such as composition and temperature  
11. that matter is made of small particles all in random motion  
12. the application of heat to change something from a liquid to a gas  
13. the particular temperature and pressure at which the solid, liquid, and gaseous phases of a given substance are all at equilibrium with one another.  
15. the measurement of heat  
16. the process whereby heat changes something from a solid to a liquid  
20. are tightly packed, vibrating about a fixed position definite shape and definite volume