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Chapter 3 Phases of Matter

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|  |  |  |  |  |  |  |  |  |  |  |  |  | 1  P |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | 2  S | U | B | L | I | M | A | T | I | O | N |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  | R |  |  |  |  |  |  |  |  |  |  |  |  | 3  P |  |  |  |
|  |  |  |  |  | 4  P |  |  |  |  |  |  |  | T |  |  |  |  |  |  |  |  |  |  |  |  | A |  |  |  |
|  |  |  |  |  | H |  |  |  |  | 5  S | O | L | I | D |  |  |  |  |  |  |  |  |  |  |  | R |  |  |  |
|  |  |  |  |  | Y |  |  |  |  |  |  |  | C |  |  | 6  C |  |  |  |  |  |  |  | 7  B |  | T |  |  |  |
|  |  |  |  |  | S |  | 8  P | A | R | T | I | C | L | E | M | O | T | I | O | N | O | F | S | O | L | I | D |  |  |
|  |  |  |  |  | I |  |  |  |  |  |  |  | E |  |  | N |  |  |  |  |  |  |  | Y |  | C |  |  |  |
|  |  |  |  |  | C |  | 9  E |  |  |  |  |  | M |  |  | D |  |  |  |  |  |  |  | L |  | L |  |  |  |
|  |  |  |  |  | A |  | X |  |  | 10  E | N | D | O | T | H | E | R | M | I | 11  C |  |  |  | E |  | E |  |  |  |
|  |  |  |  |  | L |  | O |  |  |  |  |  | T |  |  | N |  |  |  | H |  |  |  | S |  | M |  |  |  |
|  |  |  |  |  | P |  | T |  | 12  L | I | Q | U | I | D |  | S |  |  |  | A |  |  |  | L |  | O |  |  |  |
|  |  |  |  |  | R |  | H |  |  |  |  |  | O |  |  | A |  |  |  | R |  |  |  | A |  | T |  |  |  |
|  |  |  |  |  | O |  | E |  |  | 13  G |  |  | N |  |  | T |  |  |  | L |  |  |  | W |  | I |  |  |  |
|  |  |  | 14  V | A | P | O | R | I | Z | A | T | I | O | N |  | I |  |  |  | E |  |  |  |  |  | O |  |  |  |
|  |  |  |  |  | E |  | M |  |  | S |  |  | F |  |  | O |  |  |  | S |  |  |  |  |  | N |  |  |  |
|  |  |  |  |  | R |  | I |  |  |  | 15  M | E | L | T | I | N | G |  |  | L |  |  |  |  |  | O |  |  |  |
|  |  |  |  |  | T |  | C |  |  |  |  |  | I |  |  |  |  |  |  | A |  |  |  |  |  | F |  |  |  |
|  |  |  |  |  | Y |  |  |  |  |  |  |  | Q |  |  |  |  |  |  | W |  |  |  |  |  | G |  |  |  |
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|  |  |  |  |  |  |  |  | 16  F | R | E | E | Z | I | N | G |  |  |  |  |  |  |  |  |  |  | S |  |  |  |
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| **Across**  **2.** Phase change from a solid to a gas  **5.** Matter that has a definite shape and volume  **8.** Fixed in place, packed tightly  **10.** Heat is absorbed  **12.** Matter that has no definite shape but a definite volume  **14.** Phase change from a liquid to a gas  **15.** Phase change from solid to a liquid  **16.** Phase change from a liquid to a solid | **Down**  **1.** Constant motion, closer together, less kinetic energy  **3.** Constant, random motion  **4.** A property that can be observed without changing the identity of the substance.  **6.** Phase change from a gas to a liquid  **7.** The volume of a fixed mass of gas varies inversely with the pressure at constant temperature  **9.** Heat is released  **11.** The volume of a fixed mass of gas at constant pressure varies directly with the Kelvin temperature scale  **13.** Matter that has no definite shape or volume |