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| **3-2 Matter** | Explain the effect of heat on the motion of atoms through a description of what happens to particles during a change in phase. |
| **How does heat change the motion (movement) of particles?** | * Adding heat gives particles more energy = more motion * Taking away heat gives particles less energy = less motion |
| **What causes states of matter to change?** | Add heat/take away heat.  Add heat= particles gain energy  Lose heat= particles lose energy |
| **What is the melting point?**  **p. 78-79** | The temperature at which a solid becomes a liquid  \*Particles gain energy |
| **What happens at the same temperature as the melting point?** | Freezing point |
| **What is the freezing point?** | The change in state when a liquid becomes a solid.  \*Particles lose energy. |
| **What is the melting point/freezing point of water?** | 32 degrees Fahrenheit or 0 degrees Celsius |
| **What is the boiling point?**  **p. 80** | The temperature at which a liquid changes or a vapor or gas  (evaporation)  \*Particles gain energy |
| **What is the boiling point of water?** | 212 degrees Fahrenheit or 100 degrees Celsius |
| **What is evaporation?** | The change of state from a liquid to a gas that usually occurs at the surface of the liquid  \*Particles gain energy |
| **What is condensation?** | The change of state from a gas to a liquid.  \*Particles lose energy |
| **Do particles gain or lose mass when they change phases?** | Neither, the mass stays the same. Mass is conserved. |

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