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Heat and Energy

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| **Across**  **4.** the change of a substance from a liquid to a gas; it that takes place at the surface of a liquid.  **7.** a temperature scale that defines the freezing point of water as 0 degrees and the boiling point of water as 100 degrees  **9.** the temperature at which no thermal energy can be removed from matter.  **12.** a temperature scale that defines the freezing point of water as 32 degrees and the boiling point of water a 212 degrees   **14.** The amount of heat that must be absorbed or lost for 1 gram of a substance to change its temperature by 1°C.  **16.** the changing a solid to a liquid.  **18.** the transfer of energy by direct contact. The term can apply to either heat transfer or electron transfer.  **19.** a material that transfers heat, electricity, or both easily.  **20.** a physical property that describes matter as a solid, liquid, or gas.  **21.** the spreading apart of the matter particles of an object when that object is heated.  **22.** the transfer of thermal energy by the circulation or movement of a liquid or gas. | **Down**  **1.** the total energy of all the particles in an object.  **2.** the movement of a fluid, caused by differences in temperature, that transfers heat from one part of the fluid to another.  **3.** the changing of a gas to a liquid.  **5.** the temperature at which no thermal energy can be removed from matter.  **6.** the temperature scale in which the freezing point of water is 273 K and the boiling point is 373 K; 0 K is absolute zero  **8.** the measure of motion of matter particles.  **10.** the withdrawal of heat to change something from a liquid to a solid.  **11.** thermal energy that is transferred from matter at a higher temperature to matter at a lower temperature.  **13.** the physical change of matter from one state to another.  **15.** a material that does not transfer, heat, electricity, or both easily.  **17.** the transfer of energy by electromagnetic waves. |