Science 2 ~ Ch. 8 Energy & Heat Study Guide ~ **Test: Wednesday 9/21/16 and Thursday 9/22/16**

1. What is Energy?	Ability to produce change
2. Define: Potential Energy Kinetic Energy	PE: Stored energy KE: Energy in motion
3. How are Mechanical Energy and Thermal Energy different?	Mechanical Energy deals with whole objects in a system while Thermal Energy deals with atomic-level particles.
4. Describe the Law of Conservation of Energy.	Energy cannot be created or destroyed, only transferred or transformed into other forms of energy.
5. What happens to particles in matter when you add Thermal Energy?	Particles move faster as you add Thermal Energy and slower as they give off Thermal Energy.
6. What are the 3 ways you can heat a material?	Convection, Conduction, and Radiation
7. What 2 types of Energy are carried by waves?	Sound Energy, Radiant Energy
8. Give 2 examples of Renewable Energy Sources	Solar Energy, Wind Energy, Geothermal Energy, Hydroelectric Energy, Biomass
9. Give 2 examples of Non-renewable Energy Sources	Nuclear Power, Fossil Fuels (Natural Gas, Coal, Oil, Petroleum)
10. What are the 3 states of matter?	Solid, Liquid, and Gas
11. What is it called when matter transforms from a solid to a gas?	Sublimation
Matching	
Match the term to the example a. conduction b. convection c. insulation d. sublimation e. vaporization __1. A water heater is wrapped with a quilt to conserve heat in the water. __2. The level of a puddle goes down as the water evaporates. __3. You burned your fingers when you touched a hot pan. __4. Wet cloth can be hung in freezing weather and dries because the water becomes water vapor. __5. Heat leaves the coffee cup as the steam and warmer liquid air rise to the top.	1. C 2. E 3. A 4. D 5. B
Match the type of energy to the example a. electric b. mechanical c. nuclear d. radiant e. sound f. thermal __6. weight lifted above your head __7. bee buzzing __8. cell phone battery __9. radio waves __10. atoms splitting __11. rubbing hands together to warm them	6. B 7. E 8. A 9. D 10. C 11. F