***Energy Essential Questions***

How is energy transferred?

What is conservation of energy?

What is the difference between heat and temperature?

How can heat be transferred?

How does heat travel by conduction, convection, and radiation?

What is absorption and how does it affect the energy of a material?

How does the type of surface affect how light reflects off of it?

What is the electromagnetic spectrum?

How are forms of electromagnetic radiation the same? How are they different?

How does scattering make the sky blue?

How is thermal energy transferred?

Why do materials expand and contract?

What materials are good conductors?

What materials are good insulators?

How does the rate of expansion and contraction of a material affect its suitability for use in technological design?

***Vocabulary to know:***

Heat

heat energy

thermal energy

mechanical energy

electrical energy

temperature

conduction

convection

radiation

electromagnetic waves

visible light

infrared light

ultraviolet light

absorption

scattering

thermal expansion

conductors

insulators