Heat and Electricity Vocabulary and Notes Test Oct. 13, 2022

Circuit- The pathway through which electricity flows.

Conductor- Material that allows heat or electrical energy to easily flow through it.

Conversion- A change in nature, form, or units.

Electrical Energy- Energy produced by electric charges.

Electricity- Energy created by the movement of electrons.

Electric Circuit- The pathway through which electrical current flows.

Energy Transfer- The transfer of energy from one object or material to another or from one form to another.

Friction- A force that slows or stops motion when objects rub together.

Heat Energy- Energy that causes a change in temperature between materials.

Insulator- Material through which heat or electricity does not easily flow.

Motion- Describes change in an object's position with respect to time and in comparison to other objects.

Solar Energy- Energy that comes from the Sun.

Sound- Energy that travels through the air and can be heard by the ear.

Vibrations- A series of small, fast movements back and forth or from side to side.

Notes

Conducted energy can be in the form of HEAT and ELECTRICITY.

Matter is made up of tiny little particles.

Matter is the stuff that everything is made of; it has mass and takes up space.

What are good conductors of heat? Silver, copper, gold, aluminum, and iron

Metals are also a good conductor of what? Electricity

Three common ways how heat is produced:

- Friction (rubbing objects)
- Combustion (burning objects)
- Chemical reactions (mixing substances)

What is an insulator? A material that is poor conductor of energy is an insulator.

*** Know the many forms of useful energy that Begin as electrical energy

1. Sound and Light Energy
2. Light and Heat Energy
3. Mechanical Energy
4. Sound Energy

*** Know how you can use different energy forms.

1. Heat energy – Example: using an oven
2. Light energy- Example: light bulb, light shining through windows
3. Sound energy- Example: sound from speakers
4. Electrical energy- Example: washing machines, refrigerators, dishwashers, toasters

*** Know the parts of the circuit and the functions of each part.

1. Energy Source- the (load)
2. On- off Switch-controls whether the circuit is open (off) or closed (on)
3. Device - use the electrical energy

Multiple Choice

1. If a battery, a bulb, some wires, and a switch have been assembled and the bulb does not light up, to make the bulb light up the **switch would have to be closed.**
2. **Rubber** is a good electrical insulator.
3. A **penny** can be placed in the open space between to wires to complete a circuit.
4. **Heat Energy** is produced when two blocks of wood is rubbed together.
5. **A Burning Candle** would produce more heat then a rolling ball, a falling leaf, and a floating cloud.