Final Packet June 1 -11, 2020

Day 1: Monday June 1, 2020

Use the following link to help with your Magnetism Vocabulary: https://youtu.be/yXCeuSiTOug

Term	Definition/Description
1. Magnetism	is the attraction of a magnet for another object
2. Magnetic Poles	the 2 ends of a magnet (North / South)
3. Repel	objects more away from each other
4. Attract	objects move towards each other
5. Magnetic Field	the region / area of magnetic force around a magnet
6. Insulators	do not tend to contain metal and are not magnetic
7. Conductor	tend to contain metal and are magnetic objects

Day 2: Tuesday June2, 2020

Use the following link to help you: https://youtu.be/yXCeuSiTOug

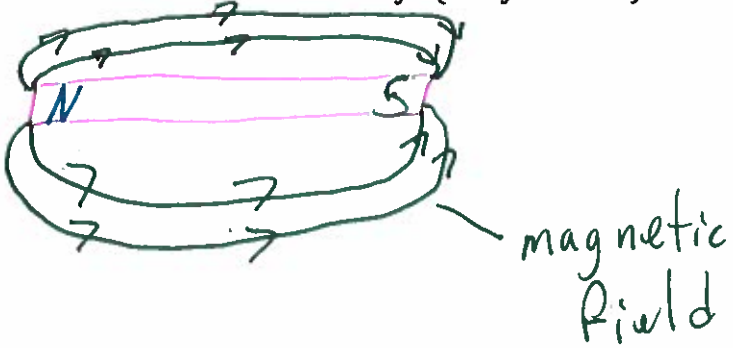
Show me what you know.

1. Magnetic Attraction	
Scenario	Repel or Attract?
Two south poles are brought together.	Repel
A north pole is brought to a south pole.	Attract
Two north poles are brought together	Repel
A south pole is brought to a north pole.	Attract

2. A magnet has two ends; each one is called a (n) pole.
3. What happens if you break a magnet in two? you will have two magnets both having a north / south pole
4. What type of objects are magnetic?

Conductors	Insulators

5. Iron, Cobalt and Nickel are three metals that are attracted to a magnet.
6. Identify the two poles found on a magnet. North and South
7. The earth's core is made of iron and nickel causing it to behave like a magnet.
8. Is a magnetic field visible to the naked eye (can you see it)? NO



Day 3- 4: Wednesday 6/3 - Thursday 6/4/20

Generators, Motors, and Electromagnets

	Generator	Electric Motor	Electromagnet
Definition/Description What is it?	A machine that converts mechanical energy into electricity	A device that converts electricity into mechanical energy. The opposite of a generator.	A magnetic core made in to a magnet by passing electric current through a coil that surrounds it.
Examples:	portable - use gas or diesel (can run appliances) inverter - converts AC/DC - constant flow. RV standby - is an electrical system	↓	
How are they used?	To power appliances, homes, RV's and hospitals	Used in electric cars, appliances ceiling fans, computers	Found in many electrical devices: hair dryer, power drills, Found in motors and generators
Energy Transformation	Mechanical → electrical	electrical → mechanical	electromagnetic energy → kinetic energy + heat

Day 5 : Friday, June 5, 2020

Static Electricity Video

https://youtu.be/yc2-363MIQs

Watch the video and answer the following questions.

1. **Normally the** protons **and** electrons **of an atom balance out.**
2. **Most matter is** electrically **neutral.**
3. Friction **can cause electrons to leave their atoms.**
4. **What causes static electricity?**
   The result of the transfer of electrons from one atom to another (one object to another) causing a charge in balance.
5. **Lightning can strike the same place more than once. True or False**

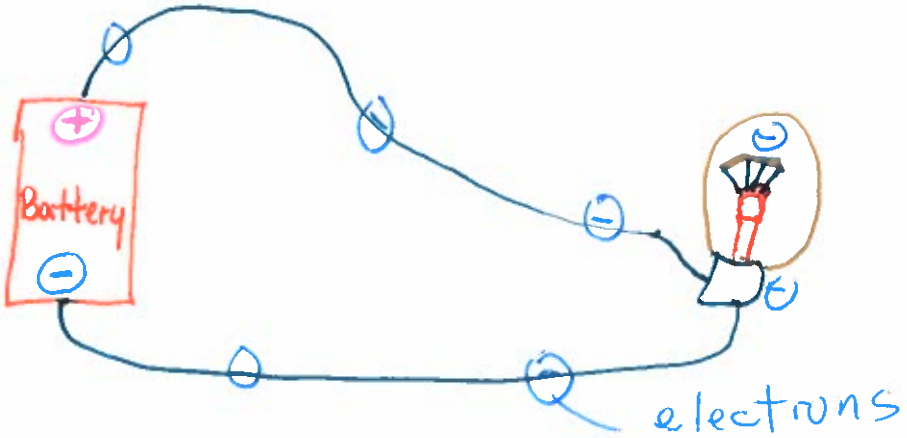
Day 6: Monday June 8,2020

Exploring an Electrical Circuit: What is a circuit? Video

https://youtu.be/VnnpLaKsqGU

Watch the video and answer the following questions.

1. **What is a circuit?** Is a route or path for electrical current to flo
   flows from Negative → positive
2. **Define a complete circuit?** A unbroken path in which electrons flow.
3. **Define a closed circuit?** The an broken path in which electr
   flow.
4. **Identify two energy transformations in this electrical circuit.**
   1. heat
   2. light
5. **Describe and sketch the path of electrons as they flow in a circuit.**



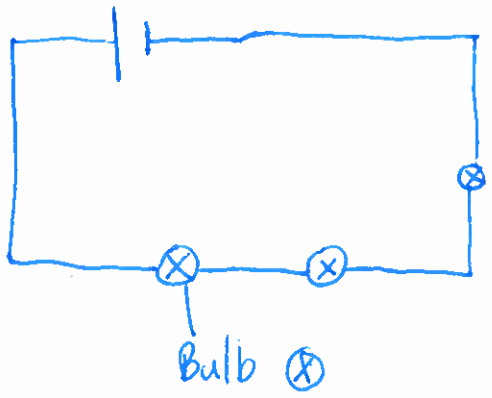
Day 7 & 8: Tuesday & Wednesday, June 9 - 10 2020

Series and Parallel Circuits Video

https://youtu.be/js7Q-r7G9ug

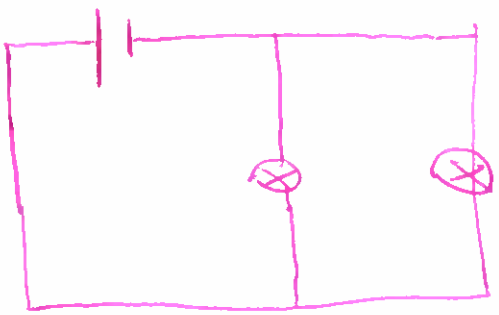
Watch the video and answer the following questions.

1. **Identify the 2 things needed for a complete circuit.**
   1. Power Source - (Battery)
   2. A complete circuit or path for electrons to flow (electricity)
2. **Identify the 2 types of circuits.**
   1. Series
   2. Parallel

3. Draw a series circuit with 3 bulbs.	4. Using your diagram explain what will happen if you disconnect one of your lights. All the lights will go out. The circuit would be broken and the electrons would not be able to flow throughout the circuit
	

5. **Give an example of a series circuit.**
   Christmas lights, Party lights
6. **Circle the disadvantages of a series circuit (circle all that apply)**
   - (A.) **Lights get dimmer as you add lights**
   - **B. Requires less wires**
   - **C. Requires more wires**
   - (D.) **Everything goes out (fails) if the circuit is broken**

Advantages:
① less wires
② lets you know a comp in the circui- failed

7. Draw a parallel circuit with 2 bulbs.	8. Using your diagram explain what will happen if you disconnect one of your lights. All the other lights would continue to burn.
	

9. **Circle the advantages of a parallel circuit (circle all that apply).**
   - **A. Requires less wires**
   - **B. Requires more wires**
   - **C. If one component in the circuit fails everything else will work**
   - **D. Lights get dimmer as you add lights**
   - **E. Lights do not get dimmer as you add lights**

10. **Identify the type of circuit used in our homes and explain why.**

Parallel circuits are used in our homes. The allows us not to have to turn on all the lights or turn off all the lights at the same time.

Day 9: Thursday, June 11, 2020
Join me for a Farewell Zoom at 11:00

You made it!!!!!! It is the last day of school!!! Enjoy your summer!!!