

Physical Science – Week 18
Text pp. 410-423

Day 1-Read pp 411-412

1. A stationary charge of electricity is called ? . Moving charges are called ? , and are the flow of ? from one place to another.
2. What is the difference between **AC** and **DC current**?
3. Where do we find DC being used?
4. Why is AC generated by power companies like BGE?
5. What does 60 cycle AC mean?
6. What causes electrons to flow?

Day 2- Read pp 412-415

1. Define these terms:
 - a. **voltage**
 - b. **amperage**
 - c. **power**
 - d. **kilowatt hour**
2. Learn this formula: **watts = volts x amps**.
During power failures, a man uses an electric generator that produces 1000 watts. Which of the following 120 volt appliances can it run (one at a time).
 - a. refrigerator – 8 amps
 - b. TV set – 2 amps
 - c. washing machine – 10 amps
 - d. freezer – 5 amps
 - e. microwave – 12 amps
3. Look at the chart at the bottom of p 415. Generally speaking, the best conductors Are made of ? .

Day 3 – Read pp 415-418

1. What is **electrical resistance** and what unit is used to measure it?
2. Because of resistance, some energy is converted into ? .
3. How is **nichrome used**?
4. What are 4 factors affecting resistance?
5. What is a **superconductor**?
6. Learn **Ohm's law**. The easiest way to remember this is by using the Ohm's law circle diagram at the top of p 418. Do the "application" on p 418.

Day 4 – Read pp 418-421

1. What is a **resistor** and what is it used for?
2. What are the 3 main parts of an electric circuit?
3. What device is used to create an **open circuit**?
4. Why is a **short circuit** dangerous?
5. **Fuses** are used in cars and **circuit breakers** in buildings to prevent what?

Day 5 – Read pp 421-423

1. What is the difference between a **series circuit** and a **parallel circuit**?
2. Resistance is lower in what kind of circuit?
3. What type of circuit is used in most building wiring today?