Physical Science
Week 19 Text pp. 425-437

True (+) or False (0): Write all answers on the answer sheet.

1. Incandescent means “light emitted from excited electrons”.
2. The filament of a common light bulb is typically heated to 500 degrees F.
3. Modern light bulbs use filaments made of manganese.
4. Light bulbs are filled with an inert gas to make the filament last longer.
5. A fluorescent light tube is filled with mercury vapor.
6. Fluorescent lamps produce as much heat as regular light bulbs.
7. Fluorescent lamps use less electricity to produce the same light as light bulbs.
8. Electricity can produce magnetism and magnetism can produce electricity.
9. A simple audio loudspeaker uses magnets to produce sounds.
10. An electric motor operates according to the law of magnetic force.
11. The part of an electric motor which rotates is called the field magnet.
12. No commutator is needed in an AC motor.
13. Four dry cells in parallel will produce 6 volts.
14. A generator is a device that uses electromagnetic induction to produce electricity.
15. The shaft and armature of a generator are turned by electricity.
16. A motor uses electricity to produce motion, and a generator uses motion to produce electricity.

Fill in the answers on the answer sheet:

1. A _?_ uses electricity to produce a bank and forth motion.
2. An electrical switch operated by an electromagnet is called a _?_.
3. The most important device for converting electricity into motion is the _?_.
4. A device called a _?_ reverses the current in an armature causing magnetic poles to switch.

What are the 6 ways electricity can be produced?

5. _?_
6. _?_
7. _?_
8. _?_
9. _?_
10. _?_

11. Four dry cells (batteries) in series will produce how many volts?
12. If you wanted to have maximum available amps from dry cells, should they be arranged in series or parallel?
13. How many cells are there in a 9 volt battery?

14. How are the batteries arranged in most flashlights, series or parallel? (take a look).

15. Michael Faraday discovered that _?_ can directly produce electric current.

The strength of an electromagnetically induced current can be increased in what 3 ways?

16. _?_

17. _?_

18. _?_

19. In large generators, the field magnets are powerful _?_.

20. The most common generators are those that produce _?_ current.

Vocabulary - write the definitions for these terms on the answer sheet and be able to explain them next week *from memory in your own words*.

1. incandescent lamp
2. fluorescent lamp
3. solenoid
4. relay
5. electric field
6. voltaic cell
7. storage cell
8. electromagnetic induction
9. lines of force
10. generator