## Electricity and Magnetism Vocabulary



## <u>Across</u>

2. the law that states that like charges repel and opposite forces attract

3. any material that attracts iron or materials containing iron

9. the rate at which charges pass through a given point; measured in amperes

13. electric charge at rest; generally produced by friction or induction 15. a coil of wire with an electric current in it

**16.** in physical science, the opposition presented to the current by a material or device

17. a device that converts electrical energy into mechanical energy

**18.** a circuit in which the points are joined one after another such that the current in each part is the same **19.** the space around a charged object in which another charged object experiences an electric force

**20.** the interaction between electricity and magnetism

21. one of two points, such as the ends of a magnet, that have opposing magnetic qualities

Down

1. a force of attraction o repulsion generated by moving or spinning electric charges

4. a material in which charges cannot move freely

5. could be an iron or steel bar, or in a permanent magnet

6. a material in which charges can move freely

7. the release of electricity stored in a source

8. a device that converts mechanical energy to electrical energy

10. the potential difference between two points; measured in volts

11. a vector field that associates to each point in space the Coulomb force experienced by a unit electric charge 12. a coil that has a soft iron core and that acts as a magnet when an electric current is in the coil

14. a circuit in which the parts are joined in branches such that the potential difference across each part is the same