

Unit 20: Coulomb's Law, Static Electricity

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1. What is the cause of the electric force?
-the electric charge
2. What did Coulomb's experiment reveal?
-it revealed the relation between charge and force.
3. Why is an understanding of electricity essential to the study of matter?
-Electricity resides in matter and matter is essentially electrical in nature.
4. What is the nucleus made of?
-Protons and neutrons
5. What is an ion? Give an example of an ion.
-The atom or molecule of an object when it has too many or too few of electrons, ex. table salt.
6. List 3 properties common to metals:
-Every metal is malleable and ductile.
-Luster: the degree to which a shiny metal reflects light
-conductivity: ability to conduct electricity
7. What gives metals their special properties?
-Conduction electrons
8. Describe the function of a gold-leaf electroscope.
-The function is to indicate the electrical charge. When the rod and leaf have the same charge then they will repel from each other.
9. What natural phenomenon involves huge build-ups and releases of electric charge?
-Thunderstorms
10. Describe "charging by induction".
-Charging by induction is when charged object induces a charge on another object without touching it.