**Formative Quiz – Electrostatics**

1. Which of the following is a good conductor?
   1. Silk b. Sand **c. Salt water** d. Sulphur
2. Electrons will **NOT** travel freely through which of the following?
   1. Copper b. Carbon **c. Wood**  d. Silver
3. To protect against a fire, copper used for wiring in a house would best be covered with:
   1. Aluminum b. Carbon **c. Rubber** d. Nickel
4. An electrostatic air cleaner removes particles and dust from the air because:
   1. The polluting particles are charged by contact and are attracted to plates with a like charge.
   2. The polluting particles are charged by induction and are attracted to plates with a like charge.
   3. **The polluting particles are charged by contact and are attracted to plates with an opposite charge.**
   4. The polluting particles are charged by induction and are attracted to plates with an opposite charge.
5. When a negatively charged rod is used to induce a charge on an grounded object, there is a flow of:
   1. Electrons from the rod into the object.
   2. Protons from the rod into the object.
   3. **Electrons from the object to the ground.**
   4. Protons from the object to the ground.
6. When a positively charged rod is used to induce a charge on an grounded object, there is a flow of:
   1. Electrons from the object to the ground.
   2. **Electrons from the ground into the object.**
   3. Protons from the object to the ground.
   4. Protons from the ground into the object.
7. Object X and Y, originally neutral, are rubbed together. Object X loses electrons to object Y. What charges are on the objects?
   1. Object X is negatively charged. Object Y is negatively charged.
   2. Object X is positively charged. Object Y is positively charged.
   3. Object X is negatively charged. Object Y is positively charged.
   4. **Object X is positively charged. Object Y is negatively charged.**
8. The electrostatic series tells:
   1. Which substance will become positively charged and which will become negatively charged when the two are rubbed together
   2. Which substances hold onto their electrons tightly
   3. Which substance hold onto their electrons weakly
   4. **All of the above.**
9. Removing “excess charge” from a positively charged object to make it neutral involves:
   1. Losing protons b. Losing electrons c. Gaining protons **d. Gaining electrons**
10. Removal of an electric charge from a source is called:
    1. Electric charge **b. Electric discharge** c. Electric removal d. Static electricity