

Name _____ Date _____ Period _____

Video Worksheet: The Science of Static Electricity

CONCEPTUAL PHYSICS: UNIT 6

Directions: Answer the following questions while watching YouTube video “The Science of Static Electricity”. <https://www.youtube.com/watch?v=yc2-363MIQs>

1. All matter is made up of _____ that consists of **3 smaller particles**:
 - 1)
 - 2)
 - 3)

2. Why is most matter we come into contact with **electrically neutral**?

3. What does it mean when there is a “**charge imbalance**”?

4. When a newly charged body comes into contact with another material which charged particle actually moves?

5. What is the “**neutral charge equilibrium**”?

6. What is the quick movement of electrons called?

<https://www.youtube.com/watch?v=yc2-363MIQs>

7. **Conductors** like _____ and _____ tend to have loosely bound electrons.

8. **Insulators** like _____ and _____ have tightly bound electrons that won't readily jump to other atoms.

9. When is **static buildup** most likely to occur?

10. When you shuffle your feet on carpet is your body gaining or losing **electrons**?

11. What happens when you have a **charge separation** in clouds?

12. When is the charge imbalance **neutralized** in a charged cloud?

13. Can **lightning** strike in the same spot?