Name _____ Physics
Electrostatics Computer - Website Lab

Directions: Visit each of the websites that are linked off the regentsprep.org site as described below and answer the following questions.

Go to www.regentsprep.org and click on the physics link
Click on static electricity under section *3 Electricity and Magnetism*

Click on Insulators and Conductors

1. What is a neutral conductors response as a positively charged rod is brought near it?

_____

_____

2. What is a neutral conductors response as a negatively charged rod is brought near it?

_____

_____

3. Why can we say that a charged rod will always be attracted by a conductor?

_____

_____

4. Are both electrons and protons free to move? If not, which ones can only move? _____

_____

5. What is the atomic positioning in the neutral conductor? _____

_____

6. What is an insulators response to a charged object when a charged object is brought near it? ____

_____

_____

7. Are charges free to move around or do they stay put in an insulator? _____

_____

8. Will a charged rod also be attracted to an insulator? _____

_____

Click on Charge Theft or Loss

9. Why does a charged sphere loose charge over time? _____

_____

_____

10. Why do we have more static electricity in the air on dry days than on moist days? _____

_____

_____

Click on Triboelectricity - Charged by Friction

11. What is triboelectricity? _____

_____

_____

12. What is happening to the man as he is walking across the carpet? _____

_____

_____

13. What would happen if he wore rubber shoes? Would he feel a difference when he touched the door?

_____

_____

14. What is a triboelectric series? What principle is it based on? _____

_____

_____

15. Compare the follow and describe, when rubbed together, which would become positively charged and which one would become negatively charged.

Rabbit fur and Lead

Rabbit fur _____

Lead _____

Glass and Polyester

Glass _____

Polyester _____

Click on the Electrostatics Lab

Click on Wool and PVC

16. What occurs when you rub wool and PVC together? _____

_____

17. What occurs when you rub wool and nylon together? _____

_____

Click on Charging a Balloon with your Hair

18. How can you charge a balloon with your hair? Explain in terms of static electricity. _____

_____

_____

Click on Bringing a Charged Object Near an Electroscope

19. What is an electroscope? _____

_____

20. What is an electroscope made of? _____

_____

21. What will happen if a positively charged object is brought near an electroscope? _____

_____

_____

22. What will happen if a negatively charged object is brought near an electroscope? _____

_____

_____

Click on Charging the Electroscope by Contact

23. What happens to the charged rod / electroscope system as a positive rod makes contact?

_____

_____

24. What happens to the charged rod / electroscope system as a negative rod makes contact?

_____

_____

Click on By Induction

25. What does the word induction mean? _____

26. How does an electroscope become charged by induction? _____

_____

27. Compare charging by induction and conduction in the table below

Conduction	**Induction**