

Worksheet - 01 - Basic Electricity

Name:

1. Draw a labelled diagram of a Hydrogen Atom. The following labels should appear. Small, Heavy, Light, Electron, Nucleus, Proton, Negative, Positive.
2. If an electron is removed from a neutral atom, what kind of charge does the atom have?
3. Describe an electric current in a wire.
4. When an object is NOT charged, what can you say about the negative electrons and the positive nuclei in the object.
5. What is meant by a negative ion? In your answer, mention electrons and protons.
6. Describe the most important property of electrons in an insulator.
7. Describe the most important property of electrons in a conductor.

8. Which category of materials ALL conduct electricity very well?

9. In a crystal of totally pure silicon, how many electrons are there in the outer shell of each atom?

10. In N type silicon, how many electrons are there in the outer shell of each dope / impurity atom?

11. In P type silicon, how many electrons are there in the outer shell of each dope / impurity atom?

12. Give examples to explain the difference between silicon and silicone?

13. List four potentially fatal dangers from short circuits.

14. The unit for measuring Current is _____

15. The unit for measuring Potential Difference is _____

16. The unit for measuring Charge is _____