

Unit 3

Communication Electronics

Lesson 3.2

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Lesson Title Basic Electronic Theory – Atomic Theory

Curriculum Area Science

Grades 6 – 8

Duration 2 class periods

Content Standard SC – 1

Benchmarks SC – 1.1
SC – 1.2

Goal

- Develop students' understanding of basic atomic theory.

Objectives

- Students diagram the structure of the atom and identify the three sub-atomic particles.
- Students describe the relationship of electromagnetic charges between sub-atomic particles.

Resources Materials

Now You're Talking, Chapter 5

Understanding Basic Electronics, Chapter 9

Instructional Content

Sub-Atomic Particles

Protons

Neutrons

Electrons

Electrostatic Charges

Suggested Activities

1. Build a model of an atom.
2. Calculate number of protons, neutrons and electrons (sub-atomic particles) for several elements including: a conductor, insulator and semiconductor.
3. Electrostatic Fields – Understanding Basic Electronics, pages 9-9, through 9-12.

