Unit 3
Communication Electronics
Lesson 3.8

Prepared By Steve Lalonde, WA7WKX
Lesson Title Basic Electronic Theory – Electrical Components

Curriculum Areas Math & Science

Grades 6 – 8

Duration 2 to 3 class periods

Content Standards M – 3, SC – 2

Benchmarks M – 3.1, SC – 2.1

Goal

- Develop the students' understanding of various electrical components, their schematic symbols and their role in electrical circuits.

Objective

- Students will be able to identify a resistor, switch, fuse, battery, capacitor, inductor. They will be able to identify the schematic symbol for each and explain their function in an electrical circuit.

Resource Materials

Now You're Talking, Chapter 6, pages 6-1 through 6-12

Instructional Content

Resistors – schematic symbol and ratings
Switch – schematic symbol, types and function
Fuse – schematic symbol, types and function
Battery – schematic symbol, size and ratings
Capacitor – schematic symbol and ratings
Inductor – schematic symbol and ratings

Suggested Activities

1. Using schematic symbols, draw a circuit containing a battery, switch, two resistors and a fuse.
2. Unit 3 Activity Sheet # 3.7

Unit 3
Activity Sheet #3.7
Electrical Components

Introduction

Learning how to build circuits can be fun as well as educational. In this activity you will have an opportunity to work with many of the electrical components (parts) we have discussed in the text. In the schematic diagram below you will find many schematic symbols normally found in electronic circuits.

Using the schematic symbols chart in the appendix of Now You're Talking, identify the components in the schematic below.

Figure: 3.25

ARRL Instructors Manual, page 5.135

1. _____ 6. _____
2. _____ 7. _____
3. _____ 8. _____
4. _____ 9. _____
5. _____ 10. _____