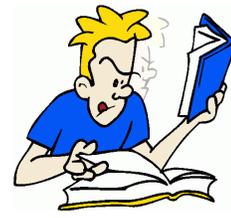


# Unit 3.1 Electricity Study Guide



## Best Way to Study

- Go through MyPLTW 3.1.2-3.1.6
- Review Activities/Worksheets
- Review [Introduction to Electricity](#)
- Review [Breadboard and Electronic Components](#)
  - A chart will be provided on the resistor colors
- Review [Transistors and Capacitors](#)
- Review [Elegoo Lesson 8 Eight LED with 74HC595](#)
- Review [Elegoo Lesson 9 The Serial Monitor](#)

## Terms/Concepts:

- Current/Voltage/Resistance
- Kirkoﬀs and Ohms Law
- Parallel and Series Circuits
- Capacitor
  - Understand  $Q=CV$  and  $\tau =RC$
- Transistor
  - Base, Collector, Emitter
- Schematic
- Ground
- Resistor
- Switch
- LED
- Diode
- Logic Gates – AND, NAND, OR, NOR, XOR, NOT
  - See [What Are Logic Gates](#)
- IC
- Bread Board
- Jumper
- 7 Segment Display
- Multitmode Meter
- DC Power Supply
- I2C
- SDA
- ACK
- Low/High
- Clock

The [Engineering Formula Sheet](#) will be provided