POE Study Guide

**Unit 1**

*Lesson 1.1 – Simple Machines*

* 6 different Simple Machines (1.1.1)
* IMA & AMA (1.1.2)
* Gears, Pulley drives and Sprockets (1.1.5)
* Compound Machines (1.1.6)

*Lesson 1.2 – Energy Sources*

* Renewable, Non-renewable and inexhaustible (1.2.1)
  + Examples of each type
* Series and Parallel circuits (1.2.3)
* Applying Ohm’s Law for circuit calculations (1.2.4)

*Lesson 1.3 – Energy Applications*

* Thermodynamics (1.3.3)

**Unit 2**

*Lesson 2.1 – Statics*

* Centroids (2.1.1)
* Moment of Inertia/Beam Deflection (2.1.2)
* Free Body Diagrams (2.1.3)
* Force Vectors (2.1.4)
* Truss Calculations (2.1.7)