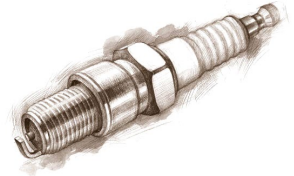


Power Mechanics 9/10



~ Course Outline ~

Welcome to Power Mechanics 9/10! This course is a short introduction to an invention that has without a doubt revolutionized our world, the Internal Combustion Engine. As you work through the course you should keep in mind that although we may take its presence for granted the internal combustion engine has only been with us for a very short period of time.

The Course

When studying a subject it is often nice to be able to envision the 'Big Picture'. This is the purpose of the list below, it allows you to quickly see at any moment in time exactly where we are in the course, where we've been and where we intend to go. Please check back with this list often, you'll find that it will help to keep things in perspective.

1. Building General Knowledge
 - Shop Safety
 - Common Hand Tools

2. Investigating the construction and operation of the 4-stroke Engine
 - Engine construction
 - Theory and operation of the 4-stroke engine
 - Engine cooling & ignition systems
 - Carburetors
 - Governors
 - Displacement
 - Compression ratio
 - Valves
 - Pistons, rings & connecting rods

3. Using Computer software to help design things f the 2-stroke Engine.
 - Fusion Software
 - Laser Cutter
 - 3D Printers

4. Competition - Electric Sheet Metal Car

Participation

Enthusiastic participation is a critical requirement of students in this course. Enthusiasm however can sometimes get out of hand, so I must state that your enthusiasm should be tempered with a mature attitude. You must be prepared to conduct yourself in a safe manner at all times. It is also expected that you will demonstrate respect for the school's tools and equipment. Above all, it is imperative that you will respect the nature of the learning environment and the rights of all students to experience this learning environment in a pleasant, non-threatening and supportive way.

Clean Up

Last but **definitely** not least is the matter of clean up. This is not a fast food restaurant, nor is it your home! No one is here to clean up after you except **YOU!** Please leave the shop spotless and put all tools back in their rightful places so you and others may enjoy a pleasant environment in which to both work and learn.

Enjoy the course!!

