

2010 Shop Rat Program Projects



Example: No exact model

Spotlight Team Project: Human Powered Vehicle

Students will get to build a human powered vehicle from scratch! Construction will involve Fiberglass Forming, Plastic fabrication, welding of the metal frame, assemble gears, chain, sprockets wheels and other general assembly work. The class will work as a team to build this vehicle and showcase it in the Jackson County Parade in June 2011!

Homemade Pen (Take it home once its complete!)

Students will turn down a gold plated pen made from exotic wood. Students will learn to use a lathe to turn the wood and will assemble the components to make it a working pen!



Remote Controlled Boxing Fighter (Take it home once its complete!)

Students will assemble their own *Remote Control Boxing Fighter* and will learn about its twin motor gearbox that allows the boxer to punch while moving forward, backward, to the left, or to the right. Hitting the face of another boxer enough - with either an uppercut or a jab - will make it fall over.



Solar Powered Toy Car (Take it home once its complete!)

Students will assemble their own solar powered toy car along with creating their very own body using vacuum forming. Students will also learn how to solder and test different motors and gears to create the most efficient vehicle.



CO2 Vehicle (Take it home once its complete!)

Students will design, build and race against other classmates to see who designed the fastest and aerodynamic version of this wooden CO2 powered car. Students will use a variety of wood working tools to construct their very own design.

