

## Pneumatics Unit Blocking Chart

<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
<p><u>Topic:</u> Introduction to Fluid Power- Science</p> <p><u>Subtopics:</u> -What is Fluid Power? -What is Pneumatics and Hydraulics? -What are advantages and disadvantages in choosing a fluid power? -What are practical uses?</p>	<p><u>Topic:</u> Introduction to Fluid Power- History</p> <p><u>Subtopics:</u> -Galileo Galilei -Evangelista Toricelli -Blaise Pascal</p> <p>Experiments: -weighing the mass of air -making a barometer -stuffing an egg in a jar -stretching a balloon</p>	<p><u>Topic:</u> Introduction to Fluid Power- History</p> <p><u>Subtopics:</u> -Robert Boyle -Jacques Charles -Daniel Bernoulli</p> <p>Experiments: -working with open ended syringes and tubes</p>	<p><u>Topic:</u> Storing Energy and the Potential to do Work</p> <p><u>Subtopics:</u> -What is Work? -How does a pump work? -Calculating the work done on a bicycle pump in order to fill a soccer ball.</p>	<p><u>Topic:</u> Storing Energy and the Potential to do Work</p> <p><u>Subtopics:</u> -What is a reservoir? -The application of Potential Energy -The application of kinetic energy</p>
<p><u>Topic:</u> Transferring Energy- Directing, Controlling, and Conditioning</p> <p><u>Subtopics:</u> -What does a Shut off Valve do? -What does a regulator do? -The danger of air pressure.</p>	<p><u>Topic:</u> Transferring Energy- Directing, Controlling, and Conditioning</p> <p><u>Subtopics:</u> -Boyle's Law -The dimensions of air tubes -What do speed controllers do?</p>	<p><u>Topic:</u> Releasing Energy</p> <p><u>Subtopics:</u> -What does a solenoid do? -Linear Actuators -Rotary Actuators -Work Out</p>	<p><u>Topic:</u> Systems</p> <p><u>Subtopics:</u> -Circuits -Inputs -Controls -Outputs</p>	<p><u>Topic:</u> Applications- Pneumatics Engraving</p> <p><u>Subtopics:</u> -Rotary Actuators -Dental Equipment -Electrical vs. Pneumatic</p> <p><u>Demonstration:</u> -pneumatic engraving</p>
<p><u>Topic:</u> Applications- Pneumatic Trainer</p> <p><u>Subtopics:</u> -safety -assembly and disassembly -experience</p>				