

**Advanced Small Engines** **Grades 9-12**

Standards	Benchmarks		Activities/Examples
12. Students will develop the abilities to use and maintain technological products and systems.	L	Document processes and procedures and communicate them to different audiences using appropriate oral and written techniques.	Disassemble and reassemble a 2-cycle engine
			Identify various carburetor types
			Understand and evaluate 2-cycle lubrication requirements
	M	Diagnose a system that is malfunctioning and use tools, materials, machines, and knowledge to repair it.	Disassemble and reassemble a 2-cycle engine
			Demonstrate troubleshooting skills on 2-cycle engines
			Demonstrate troubleshooting skills on 4-cycle engines
			Demonstrate troubleshooting skills on electrical charging/starting systems <ul style="list-style-type: none"> <li>a. Riding mowers</li> <li>b. ATV's and motorcycles</li> <li>c. Outboard engines</li> </ul>
			Demonstrate knowledge of technical manual use while repairing small engine systems as necessary
	N	Troubleshoot, analyze, and maintain systems to ensure safe and proper function and precision.	Disassemble and reassemble a 2-cycle engine
			Demonstrate troubleshooting skills on 2-cycle engines
			Demonstrate troubleshooting skills on 4-cycle engines
			Demonstrate troubleshooting skills on electrical charging/starting systems <ul style="list-style-type: none"> <li>a. Riding mowers</li> <li>b. ATV's and motorcycles</li> <li>c. Outboard engines</li> </ul>
			Demonstrate knowledge of technical manual use while repairing small engine systems as necessary
	O	Operate systems so that they function in the way they were designed.	Disassemble and reassemble a 2-cycle engine
			Demonstrate knowledge of technical manual use while repairing small engine systems as necessary
	P	Use computers and calculators to access, retrieve, organize, process, maintain, interpret, and evaluate data and information in order to communicate.	Disassemble and reassemble a 2-cycle engine
Demonstrate troubleshooting skills on electrical charging/starting systems <ul style="list-style-type: none"> <li>a. Riding mowers</li> <li>b. ATV's and motorcycles</li> <li>c. Outboard engines</li> </ul>			