

# Waukesha 4-H Project Guide



Category: Mechanical Sciences  
4/2021

<p>4-H Project</p> <p><b>Mechanics</b></p>	<p>Subprojects under this project</p> <ul style="list-style-type: none"> <li>● Automotive</li> <li>● Small Engines</li> <li>● Tractors</li> <li>● Rock Hound</li> <li>● Tractor Certification</li> <li>● Bicycles</li> </ul>
<p>Things you might learn in this project:</p>	<ul style="list-style-type: none"> <li>● learn the basics of small engines; explore external engine parts and tools; identify the uses of small engines and safety issues.</li> <li>● learn and identify parts of the tractor; understand the basics of tractor maintenance; learn about different fuels and engine cooling systems; research different safety features and learn safety rules.</li> <li>● learn the essentials for getting started cycling safely; explore the basics toward lifelong cycling; learn safety, road rules and planning for a pleasant ride</li> </ul>
<p>Learning activities/ workshops/ field trip ideas:</p>	<ul style="list-style-type: none"> <li>● Interview a small engine or auto mechanic</li> <li>● Participate in a bicycle rodeo</li> <li>● Interview a police officer about bicycle safety</li> <li>● Shadow a tractor repair serviceman for a day</li> </ul>
<p>Ideas of things you might exhibit in the fair:</p>	<ul style="list-style-type: none"> <li>● Poster on safety with small engines/lawn and garden equipment</li> <li>● Display showing how a small engine runs</li> <li>● Display on maintenance of small engine parts</li> <li>● Poster comparing tractors and their use</li> <li>● Display about proper tire tread, Automobile maintenance checklist</li> <li>● Poster explaining torque</li> <li>● Photo story with captions depicting engine overhaul.</li> <li>● Display showing restoration of a tractor engine</li> <li>● Repair or maintenance log of work performed</li> <li>● Collection of worn or broken parts- explain defects. (Tip- zip-tie parts to a painted pegboard for a neat display.)</li> <li>● Rebuilt engine, poster about lawn mower maintenance</li> <li>● Display board showing parts of a carburetor</li> <li>● Photo story with captions showing repair or maintenance</li> <li>● Make an Auto roadside emergency kit</li> <li>● Create an auto maintenance checklist and schedule</li> </ul>
<p>Waukesha County Project Leaders:</p>	<ul style="list-style-type: none"> <li>● Conrad Forster c4ster@aol.com</li> </ul>

References &  
Resource links:

- <https://fyi.extension.wisc.edu/wi4hprojects/mechanical-sciences/small-engines/>
- <https://fyi.extension.wisc.edu/wi4hprojects/mechanical-sciences/tractors/>
- <https://fyi.extension.wisc.edu/wi4hprojects/mechanical-sciences/bicycling/>
- <https://4-h.org/parents/curriculum/small-engines/>
- <https://extension.sdstate.edu/4-h-automotive-small-tractor-engines-project>