

# Small Engine

Small Engine project

## Exhibit Introduction

**Note: The following poster/display requirements and small engine display requirements apply to exhibits for all three levels.**

Poster Requirements:	Actual Engine Display:	Display Board Requirements:
<ul style="list-style-type: none"><li>• Size 22" x 28"</li><li>• Mounted on stiff backing foamboard, thin plywood, peg board or very stiff cardboard</li><li>• Displayed horizontally.</li><li>• Covered in plastic</li><li>• 4-H Member identification card; i.e., name, club, county, and level</li></ul>	<p>The actual small engine may be displayed. It must be mounted on a stable base no large than 30" x 30". For safety reasons, all fluids (fuel and oil) must be removed. Note: It is strongly suggested that a notebook with details and pictures of what was done to the engine accompany the display</p>	<ul style="list-style-type: none"><li>• No more than 36" wide x 24" deep and free standing</li><li>• 3-dimensional display</li><li>• All items to be securely fastened</li><li>• 4-H member's exhibit card to be secured in lower right hand corner</li></ul>

All posters, notebooks, and display boards must include a reference list indicating where information was obtained, giving credit to the original author, to complete the 4-H member's exhibit. This reference list should/might include web site links, people and professionals interviewed, books, magazines, etc. It is recommended this reference list be attached to the back of a poster or display board, be the last page of a notebook, or included as part of the display visible to the public. A judge is not to discredit an exhibit for the manner in which references are listed.

## Requirements

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**Level: Level 1 (Grade 3, 4, and 5)**

Last Modified: 07/08/05

### Suggested Fair Exhibit Guidelines

**Educational display:** Any educational display related to what you have learned in this project. Some possibilities of exhibits might include:

- Picture poster showing what you have learned about small engines.
- Display of basic tools needed to maintain a small engine.
- An educational display related to what you have learned about two-cycle engines.
- An educational display related to what you have learned about four-stroke engines.
- An educational display showing proper maintenance and care of a lawn mower.
- An educational display of proper safety labels and procedures for small engines.
- Small engines parts display board with a brief explanation of the purpose of the parts and how they work.
- Display related to some system that you learned about in small engines (filters, cooling, ignition, etc.).

## Requirements

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**Level: Level 2 (Grade 6, 7, and 8)**

Last Modified: 07/08/05

## Suggested Fair Exhibit Guidelines

**Educational display:** Any educational display related to what you have learned in this project. Some possibilities of exhibits might include:

- An educational display comparing the different types of engines.
- An educational poster illustrating and explaining the internal parts of an engine.
- An educational display showing how transmissions work.
- An educational display showing how to conduct a compression check.
- An educational display showing how to adjust a carburetor **according to owner's manual instructions and in accordance with EPA regulations.**
- A display using a real small engine with a brief explanation showing steps in preparing a small engine for storage.
- Carburetor parts display board with a brief explanation of the purpose of the parts and how they work together.
- An income and expense record of your lawn mowing business, including costs, hours worked, pay for individual jobs, etc.

## Requirements

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**Level: Level 3 (Grades 9, 10, 11, and 12)**

Last Modified: 07/08/05

## Suggested Fair Exhibit Guidelines

**Educational display:** Any educational display related to what you have learned in this project. Some possibilities of exhibits might include:

- An educational display showing how to use diagnostic tools on small engines.
- An educational display showing how to tear down and reassemble a small engine.
- An educational display related to the electrical system of a small engine.
- An educational display about emissions systems on small engines and future trends.
- An educational display showing ~~how to remove and sharpen a mower blade~~ **mower blade inspection and maintenance skills.**
- An educational display about careers in small engines.
- An educational display about your work in finding resources about small engines on the Internet.
- An educational display about trouble-shooting common problems with small engines.
- An educational display about small engines designs.
- Any educational display related to what you have learned in this project.

## Resources

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