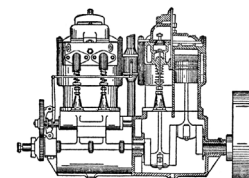


SMALL ENGINES

STATE FAIR ENTRY: Yes

EXHIBIT BY: All * items must come to project judging.

Division	Project Book	Record Book
Level 1 (grades 3- 5)	BU-08186*	BU-08186*
Level 2 (grades 6 – 8)	BU-08187*	BU-08187*
Level 3 (grades 9 – 12)	BU-08188*	BU-08188*
NOTE: You MUST complete 3 activities in your project book each year.		



JUDGING TIME: Friday, July 16 at approximately 1:30 p.m. Check in your project on Friday, July 16 between 12:30 and 1:15 p.m.

PROJECT DESCRIPTION:

This project will help you learn about small engines and how to maintain them.

EXHIBIT:

All Posters, Notebooks and Display Boards

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.

Poster Requirements:

1. Poster exhibits should have the standardized exhibit card in the lower right hand corner with the 4-H member's name, project and club. You should allow room on your poster for the exhibit card (Height - 3½" x Width – 4¼"). The exhibit card will be available at check-in time at the fair. NOTE: Add your name, club and the date poster was completed in the bottom right corner in permanent ink under the plastic, where the exhibitor card will cover.
2. Posters must be 22" x 28" and DISPLAYED HORIZONTALLY and not vertically.
3. POSTER MUST BE SELF-SUPPORTING (remain standing when leaned at a slight angle). Use heavy cardboard, foam board, or pegboard for stiffness. For sources of heavy cardboard, contact the Extension Office.
4. All posters must be covered with clear plastic.

Display Board Requirements:

1. Educational display exhibits should have the standardized exhibit card in the lower right hand corner with the 4-H member's name, project and club. You should allow room on your poster for the exhibit card (Height - 3½" x Width – 4¼"). The exhibit card will be available at check-in time at the fair.
2. No more than 36" wide x 36" deep and free standing.
3. 3-dimensional.
4. All items to be securely fastened.

Actual Engine Display Requirements:

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.

Level 1: (Grades 3 - 5)

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.).

Level 2: (Grades 6 - 8)

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.

Level 3: (Grades 9 - 12)

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 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