

Completed (40 possible) \_\_\_\_\_  
 Accuracy of answers (30 possible) \_\_\_\_\_  
 Appropriate grammar (15 possible) \_\_\_\_\_  
 Neatness of record (15 possible) \_\_\_\_\_  
 Total \_\_\_\_\_  
 A = 86-100 points  
 B = 71-85 points  
 C = 70 points or less



# 4-H Small Engines – Advanced (Grades 9-12) Record Sheet

Record for Year \_\_\_\_\_

A completed record sheet is due by the last business day of May to exhibit each project at the fair.  
 Use any 4-H publications, the internet, the library, or a professional to help you prepare your responses.

## The Basics

Name \_\_\_\_\_ 4-H Club \_\_\_\_\_

Years in 4-H \_\_\_\_\_ Grade \_\_\_\_\_ Years in Project \_\_\_\_\_

## Crank It Up

Find a piece of equipment containing a small engine at your home and record the data below.

- Equipment Type: \_\_\_\_\_
- Equipment Manufacturer: \_\_\_\_\_
- Equipment Model: \_\_\_\_\_
- Engine Manufacturer: \_\_\_\_\_
- Engine Model Number: \_\_\_\_\_
- Engine Serial Number: \_\_\_\_\_
- Fuel Mixture, if applicable: \_\_\_\_\_

List three diagnostic tools you might use to diagnose an engine problem.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

Pick one of the tools from above and explain how to use it. \_\_\_\_\_

\_\_\_\_\_

## Warm It Up

What is a governor and when might one be used? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

What is an ignition coil, and how does it work? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Describe how to change the oil in an engine. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

What should you do with old engine oil? \_\_\_\_\_  
\_\_\_\_\_

Name three pieces of safety equipment you should use or have within reach while working on small engines.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

Explain how a product warranty works. \_\_\_\_\_  
\_\_\_\_\_

### **Tune It Up**

Provide a brief description of your 4-H exhibit or plan for your exhibit. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

We do not necessarily care what you spent constructing your exhibit, but it is good for you to understand that things have a cost. Even poster boards are not free. Approximately how much did you spend constructing your exhibit or think you'll spend once it is complete?

\$0.00-\$5.00    \$5.00-\$15.00    \$15.00-\$30.00    \$30.00-\$50.00    Greater than \$50.00

### **Away It Goes**

Name three places where you could go to study engine mechanics.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

What is one thing you learned or sparked your interest as a result of completing this project? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

In what way does this project apply to your life, or why is this subject matter important to you? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_