

### **Small Engines**

Project units 1-4 are designed for members 8-18 years old.

#### Unit 1 - Crank It Up!

#### Inspiring youth to:

- Use operators manual to guide maintenance repair and adjustments
- Learn major parts of engines
- Importance of clean air to efficiently functioning engines
- How to replace a spark plug and much more

#### Unit 2 - Warm It Up!

#### Inspiring youth to:

- Learn about different engine types
- Learn the internal parts of an engine
- Specialize tools used
- Engine sizes
- Compression
- Seasoning your engine
- Safety Issues
- How to start your own business





## Unit 3 - Tune It Up! Inspiring youth to:

- Learn about tearing engines down and rebuilding them
- · How to use diagnostic tools
- How to listen to engines for specific problems
- How to properly maintain engines
- How to use the internet to find resources, rules, and regulations regarding small engines
- Select replacement engines

# Unit 4 - Advanced Small Engines Inspiring youth to:

- Plan specific goals and a course of action for a specific topic
- Become a junior leader in small engine project
- Design your own small engines project

Colorado State University, U.S Department of Agriculture and Colorado counties cooperating. To simplify technical terminology, trade names or products and equipment occasionally will be used. No endorsement of product names is intended nor is criticism implied of products not mentioned.

Colorado State University Extension is an equal opportunity provider. Colorado State University does not discriminate on the basis of disability and is committed to providing reasonable accommodations. CSU's Office of Engagement and Extension ensures meaningful access and equal opportunities to participate to individuals whose first language is not English. https://col.st/OWMJA



## Tips:

- Do at least seven activities each year.
- Date and have your leader or parent/guardian initial the completed activities.
- Take trips and tours
- Self-determine project ideas:
  - Select a topic of your choice and decide on a goal, such as putting a CD player in a car.
  - Record your goal and plan of action in the e-record.
    For example, it will take three months to learn how to install a CD player in a car.
  - o Fill out the e-Record as you work on your project.
  - Record any costs incurred and any inventory of tools or equipment used.
  - Record your accomplishments in the e-record. Share what worked and what didn't.
  - Exhibit a display board related to your project.
  - Place additional supportive materials in a sturdy binder with your e-record.



### **Resources:**

- Exhibit & Judging Requirements
- Record Books
- Manual Information

Located at: Colorado4h.org