

## **North Carolina 4-H Presentation Guidelines: Wheels and Engines**

### **Purpose/Objectives:**

- To learn the basic operating principles of automotive and service engines.
- To learn how to repair and maintain a bicycle, lawn mower, automobile, etc.
- To learn automotive safety rules for the road, etc.

**Eligibility:** Individuals or teams may compete. Each county may enter up to two participants in each age division.

- **9-10** - 4-H'er must be 9 years old prior to January 1 of the current year and not have reached their eleventh birthday before January 1 of the current year.
- **11-13** - 4-H'er must be eleven years old prior to January 1 of the current year and not have reached their thirteenth birthday before January 1 of the current year.
- **14-18** - 4-H'er must be fourteen years of age prior to January 1 of the current year, and not reached their nineteenth birthday before January 1 of the current year.

**Eligibility:** Individuals or teams may compete.

### **Presentation Ideas:**

- Parts of a bicycle
- How to care for a bicycle
- How to tighten and replace spokes
- How to prepare a snack for bicycle traveling
- Recreational and business uses for bicycles
- How to select the bicycle that is right for you
- Safe tips for the road

### **Resources:**

- Consumer Auto Reports
- Bike shops
- NC Governor's Highway Safety Bicycle Program
- Internet searches on bicycles
- Local bicycle clubs

**Rules/Regulations:** [See NC 4-H Presentation Regulations.](#)

### **Suggestions/Helpful Hints:**

- Use good visuals.
- Know the parts and principles associated with your specific topic.
- Be prepared to answer questions.
- Safety should be used when working with bicycles.

### **Judging:**

- Judges will review each presentation and complete a judge's score sheet.
- Judges will use their own discretion as to whether questions will or will not be asked.
- Judges decisions will be final.

### **Awards:**

**District Winners:** Certificate

**State Winners:** \$50 award

**Donor:** to be determined

**Specialist:**

Dr. Grant Ellington  
Box 7625  
Raleigh, NC 27695-7625  
phone: 919-515-6748  
fax: 919-515- 7760  
[ghelling@eos.ncsu.edu](mailto:ghelling@eos.ncsu.edu)

[Go to Biological and Agricultural Engineering 4-H Bicycle Safety Project webpage.](#)