



The 4-H Electricity Project can help 4-H members learn the fundamentals of electricity, including safe and efficient use. Opportunities are provided for participation in 4-H judging, visual presentation, and record programs.

4-H Thrive

Positive Youth Development

Developing Competence

Adults create environments where youth can develop competence in their chosen project area.

Building Confidence

Youth build confidence as they learn to think for themselves, build mastery, and are recognized for their efforts.

Nurturing Caring

Adults nurture a caring environment where mutual trust between youth and adults is established. Caring relationships with adults are key to resilient youth.

Finding Connection

Youth build solid connections which are critical to their well-being.

Forming Character

Create a community where youth play an active role in developing their character.

Determining Contribution

Youth actively contribute to their clubs and communities.

***Mississippi State University is
an equal opportunity
institution.***

Junior Contest

Junior Contest

The contest will consist of three parts:

- A written test consisting of ten multiple choice questions based on subject matter contained in the Electric Judging document.
- Identification of 10 circuit symbols, devices and circuits contained in the project kit box provided by MSU Ag & Bio Engineering (4 points for each correct answer).
- Hands on in working with the kit to wire a given circuit from a diagram (20 points for wiring the correct circuit). Total possible score will be 100 points.

NOTE: The identification segment will consist of components from the ABE Junior Electric Project Kit set on a table with numbers on each component. The youth will match five of the actual devices to an appropriate name and symbol or definition on a sheet of paper with 5-10 possible device names. The youth will be asked to identify items such as:

- Resistor, Wire or Conductor, Fuse, Battery, Switch, Light Emitting Diode, Parallel Circuit, Series Circuit

Total possible score for this segment will be 40 points or two points each for the proper name for a device and two points for the correct symbol or definition of the device. However, the youth should only attempt to identify items and definitions that they know. Incorrectly identified items will count against the youth's score for this segment (It would be possible to make a -40 points in this segment if all items and definitions were identified incorrectly). Additional study materials for this segment may be found at:

<http://electronicsclub.info/circuitsymbols.htm>. The hands-on skill demonstration will require the youth to look at a circuit diagram and using the kit, wire the same circuit on the kit board. Scoring will be based on correct wiring of the circuit. Total possible score for this segment will be 20 points.

Expand your experiences!



Resources

(Member manuals, leader guides, supplementary materials, training materials, videos, etc.)

Sr. Member

4H Electric Competition located on the Extension X drive under Ag Engineering. Electrical Safety

<https://www.cdc.gov/niosh/docs/2009-113/pdfs/2009-113.pdf?id=10.26616/NIOSHUB2009113>

Leader

4H Electric Competition located on the Extension X drive under Ag Engineering.

Jr. Member

Electric Judging located on the Extension X drive under Ag Engineering.

Leader

Electric Judging located on the Extension X drive under Ag Engineering.

Electric Energy – Senior Age Level Only (14-18)

Judging:

Written Examination	20 minutes
Identification of Electrical Equipment and/or parts of the equipment that are found on the farm or in the home, including electrical and electronic symbols	15 minutes
Visual Presentation	10 minutes

Visual Presentation: Included as part of judging event. Visual Presentation should be about an aspect of electrical energy.

POTENTIAL STATE DONORS:

OPPORTUNITIES BEYOND COUNTY, DISTRICT AND STATE LEVELS

(regional and national events and activities related to project)
Regional 4-H Engineering Event

IN-SERVICE TRAINING OFFERINGS FOR AGENTS:

Refer to online in-service course offering.

DATES OF EVENTS/ACTIVITIES RELATED TO PROJECT:

Project Achievement Days & State 4-H Club Congress (Refer State 4-H Calendar of Events)