

# COLORADO STATE UNIVERSITY EXTENSION

# **4-H** Computer

Computer Power Unlimited is a Computer Science Project for 4-H members interested in gaining experience in computer building, repairing, and networking, engaging young people and their project helpers in computer science activities and community service. A website provides links and resources to a variety of extended learning opportunities in topics such as open source software development and learning programming languages. Each guide in the series is designed with a specific purpose, and collectively the series supports youth and their adult helpers in the pursuit of technological competence and meaningful leadership.

#### Newbie Know-How Jr./Int./Sr.

Newbie Know-How is for member's ages 8-18 years old. This unit is designed for the member with little or no prior experience. Learning Experiences:

- Identify and use the basic components of a personal computer
- Identify the similarities and differences in basic office software application
- Deliver a computer-aided slide show presentation based on their interests

#### Inside the Box Jr./Int./Sr.

Inside the Box is for member's ages 8-18 years old. Learning Experiences:

- Identify internal computer components
- Identify operating systems and their processes
- Develop knowledge of the building, maintenance and repair of computers.

Peer to Peer Jr./Int./Sr. Peer to Peer is for

member's ages 11-18 years old. Learning experiences:

- Understanding of what networking is and how it is accomplished
- Work with adults and peers to build a functioning network
- Become familiar with protocols and program languages that support computer networking
- Analyze the negative impacts that exist as a result of networking

## Teens Teaching Technology

#### Sr.

Teens Teaching Technology is for member's ages 14-18 years old. Learning Experiences:

- Work with peers, adult and community partners to develop service related computer goals
- Create a community-based computer lab
- Develop lesson plans to teach diverse populations basic computer skills

## Discovering Computer Science

#### Sr.

Discovering Computer Science and Programming Through Scratch Learning Experiences

- Interact with a series of tutorials and challenges withing the Scratch environment
- Introduces youth to the five fundamental principles of computer programming

## Hand Molded Unit 6

#### Sr.

Computers in 21st Century. Learning Experiences

- For youth who are 11-18 years old.
- Gain knowledge on a variety of topics, for example: application design, operation and development, writing code to perform task and much more.

# **Resources and Links**

Computer Tip Sheet Computer Score Sheet Computer e-Record State Fair Exhibit Requirements

Colorado State University, U.S. Department of Agriculture and Colorado counties cooperating. Colorado State University Extension programs are available to all without discrimination. 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.