

Computer Power Unlimited (CPU)

Supporting School-Age Accreditation and Quality Programming

Computers and technology can be webbed into School-Age program activities. Many curriculum activities are designed as long-term projects where children and youth build on their knowledge and skills over time. The CPU Series strongly supports the National AfterSchool Standards for human relationships, activities, and indoor environments.



Opportunities for Youth Leadership and Development and Cross-age Teaching

Teen Teaching Tech is a guide for older teens (14 and over) and adults who work together to promote computer learning in their community. This guide provides several opportunities for cross-age teaching. Two examples are **Sharing What We Know, page 20** and **Making Magic for Munchkins!, page 22**.



Ideas! Ideas! Ideas!

- This curriculum offers additional projects, activities, speakers and field trips in the **Expand Your Memory** sections of the project guide.
- CYSTEKWARE, Technology for Every Kid! Technology Program & Camp Guides for Army Middle School & Teen Programs https://cysservices.army.mil/armycys/programs/docs/Technology/CYSTEKWARE_Overview.pdf

Summary

Those participating in *4-H Computer Power Unlimited (CPU)* will have fun learning about computers, technology, and the Internet. The curriculum and additional resources provide lots of information for a variety of technology experiences. This project will help youth navigate the technological world we live in.

Providing Quality Middle School and Teen Programming

This project is designed for youth of all ages with little or no experience with computers. Older youth with more computer knowledge, skills, and experience may want to focus on **Teen Teaching Tech** which encourages sharing computer information with others.

Essential Elements of 4-H Youth Development

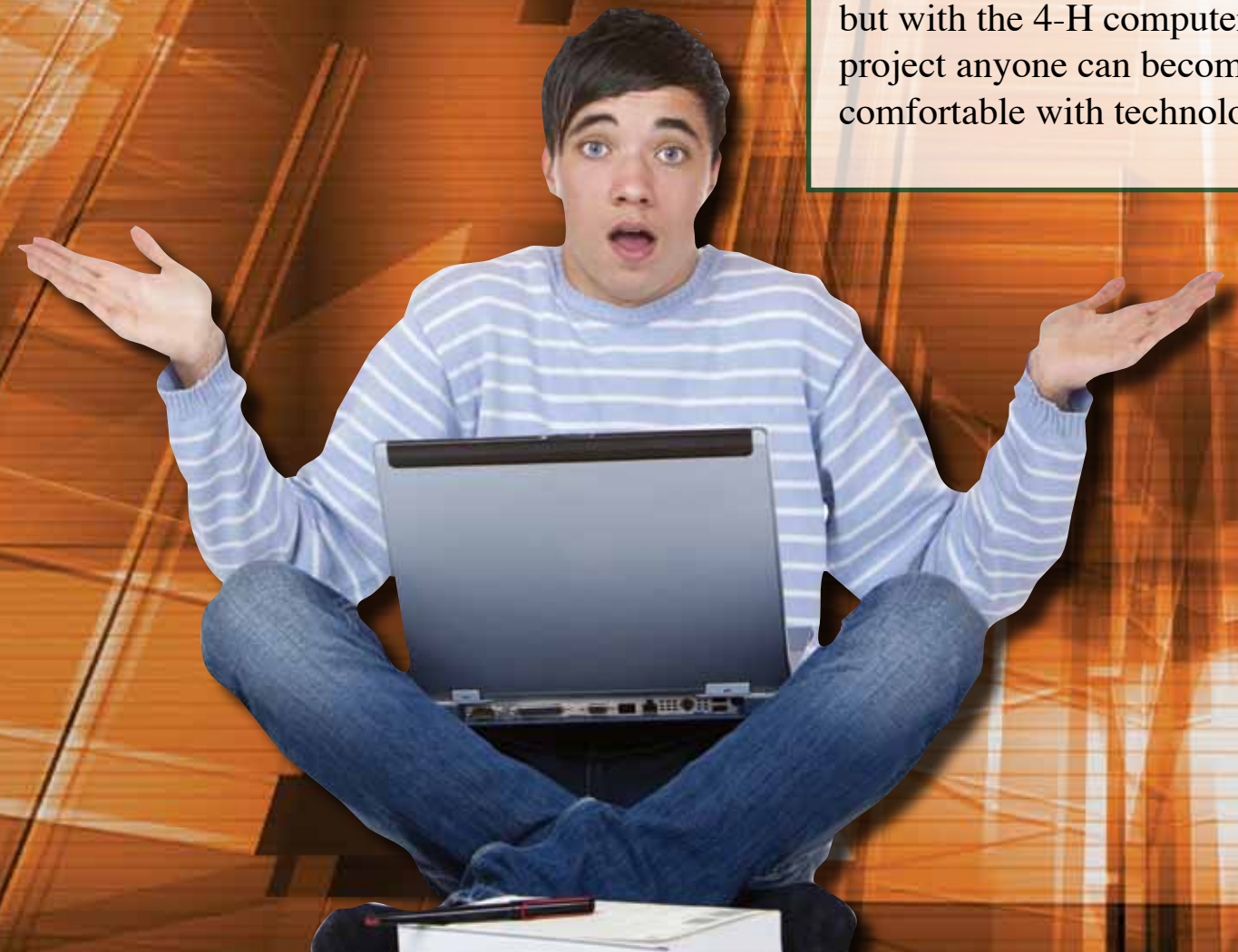
Youth involved in 4-H know they are cared about and feel a sense of **BELONGING**; they exercise **INDEPENDENCE** by using decision-making and action to influence people and events; they develop a sense of **MASTERY** by learning skills needed in making positive career and life choices; and they experience **GENEROSITY** by helping others through community service. These elements support the Army Youth Development Components of Belonging, Success, Service and Independence.



THE Army 4-H EXPRESS GUIDE TO

Computer Power Unlimited (CPU)

Boot Up, Bits, Bytes and Mouse might sound confusing but with the 4-H computer project anyone can become comfortable with technology.



Project Goals

Computer Power Unlimited (CPU) is a computer science project for youth interested in gaining experience in building, repairing and networking computers. Each guide in the series is designed to support youth and their adult helpers become competent in computer technology and develop leadership skills.

Four Fun Activities

1 Is all information found on the Internet true or accurate? Just like television ads or newspaper articles, it's important to learn where to gather reliable information. **Newbie Know-How, Super Bones, page 10**, is a good place to begin learning about the Internet.

2 Floppy drive or a CD-ROM? How is a person to know? **Inside the Box, Part and Ports: Outside the Box, pages 8-9**, helps youth discover all they can learn just by looking at the outside of a computer. It can not only tell capabilities but also the types of cables that are needed.

3 WOW! There are so many wires! **Peer to Peer, Wire or Wave?, page 12**, explains the difference between connecting with wires or connecting wirelessly. Youth will discover the best alternative for their systems.

4 Do you know what it means to bridge the digital divide? Are you ready for a human scavenger hunt? Using **Teens Teaching Tech, Bridge the Digital Divide, page 8**, youth complete the grid and learn more about technology by explore their community and interviewing community residents.

Experiential Learning

Experiential Learning engages children and youth while they learn, share, and grow through their 4-H experiences. With you as the coach, the first step is "doing" or exploring. Next, youth share what they did and discuss the experience with their peers. After they've identified the skills and knowledge gained, help them determine how to apply these to other situations in their lives. Questions for this project might include: How do you determine the specific connection requirements for the computer you have? Do the same wires and connections work on all computers? How can you use the investigative skills you have learned in other areas of your life?



Project Activity Guides and Target Age Groups

Newbie Know-How helps youth identify the parts of a computer; understand basic software applications; use the Internet safely; and with the help of technology, pursue personal goals.

Inside the Box, ages 12 and up, encourages youth to discover the inner workings of computer hardware – parts, ports, and operating systems. Youth also discover how to diagnose and fix problems.

Peer to Peer, ages 12 and up, encourages youth and adults to work together to build a functioning network, while becoming familiar with protocols and program languages that support computer networking. They also analyze some negative technology issues like viruses and hacking.

Teens Teaching Tech, age 14 and up, encourages teens to work with adults to promote computer learning in the community. Working with peers, adults and community partners, teens develop service-related computer goals that might include creating a community-based computer lab or developing lesson plans to teach basic computer skills.

Life Skills

“Skills that help an individual to be successful in living a productive and satisfying life” are identified as Life Skills (Hendricks, 1996). Life Skills in this project include: acquiring and evaluating information, solving problems, making decisions, thinking creatively, organizing and maintaining information, managing self, communication, and applying technology. Although each activity may specifically target only one life skill, youth have the opportunity to practice several throughout the project.

Related 4-H Projects

Other 4-H projects that relate to computers and technology are: general engineering; GIS/GPS; robotics; service-learning, communications, photography, career exploration; video production and more. Most 4-H projects can include technology as part of the curriculum.



Integrating Technology

Computer Power Unlimited (CPU) has a great Website to support this curriculum, <http://www.4-h.org/resource-library/curriculum/4-h-computer/project-overview.html>

Character Connection

Character counts everywhere, all the time. When working with computers and technology:

- Be Responsible – Visit Internet sites that are reputable and provide accurate information.
- Show Caring - Help others who are less skilled using computers.
- Exercise Citizenship - Help set up a community computer lab or volunteer at a local computer lab at school or at the public library.

Linking to the Army's Four Service Areas and Baseline Programming

Sports, Fitness and Health Options

Keeping track of the latest baseball scores, comparing features of basketball shoes or learning about the safety of the latest fad diet can all be done on a computer using the Internet. **Newbie Know-How, Search It, page 12**, provides basic information on surfing the web and is useful in supporting the Service Area of Sports, Fitness and Health.

Arts, Recreation and Leisure Activities

Whether it's creating art work using special software, playing computer games, or reaching out to friends and family, *Computer Power Unlimited (CPU)* connects learning and fun. It is a perfect fit for Arts, Recreation and Leisure Activities. **Peer to Peer, Collaboration, page 34**, provides a checklist for hosting a LAN party on a network created by computer project youth.

Life Skills, Citizenship, and Leadership Opportunities

Not only does this project focus on technology but also on skills related to teamwork, leadership and community service. **Teens Teaching Tech, Establishing Über-Geek Headquarters, pages 14-15**, suggests how to connect with potential community partners for future technology projects.

Academic Support, Mentoring, and Intervention Services

Technology, in its many forms, is an important tool for academic success. **Newbie Know-How, Apply Yourself Using Office Applications, pages 18-30**, teaches basic skills necessary for academic success. The activity guides can also be helpful in mentoring and tutoring programs as well.

Community Service Service Learning Opportunities

Teens Teaching Tech is all about Service-Learning <http://www.4-h.org/resource-library/curriculum/4-h-computer/teens-teaching-tech.html>

Teens Teaching Tech, Sharing What We Know-Teaching Seniors, page 20, provides a variety of suggestions.

