



COMPUTERS



WHAT'S IT ALL ABOUT?

Through the computer project learn about hardware, software and computer applications. Learn how to create networks, domains and workgroups and make decisions about operating systems. Plan your security and firewalls, make decisions about monitoring your network and troubleshooting problems. Take your skills to the next level by learning scratch programming. Program fun animations and put the characters into computer games that you create.

HERE'S WHAT YOU CAN LEARN...

STARTING OUT

- ✿ Assemble computer and software tool kits
- ✿ Deconstruct and reconstruct a computer
- ✿ Understand how computers use numbers
- ✿ Troubleshoot hardware problem
- ✿ Explore operating systems
- ✿ Explore open-source resources
- ✿ Install operating systems
- ✿ Upgrade or replace an old computer
- ✿ Design a dream machine

RESOURCES

- ✿ *Inside the Box, Level 1* (08347)
- ✿ *Peer to Peer, Level 2* (08348)
- ✿ *Teens Teaching Tech, Level 3* (08349)

LEARNING MORE

- ✿ Identify network hardware
- ✿ Design a computer network
- ✿ Find an Internet protocol address
- ✿ Understand different types of servers
- ✿ Use different protocols to communicate
- ✿ Identify computers on a local area network
- ✿ Add peripherals to a network
- ✿ Secure a networked computer
- ✿ Share applications simultaneously

- ✿ *Newbie Know How Teen Teaching Supplement* (08346)
- ✿ *Discovering Computer Science & Programming through Scratch: Youth Guide* (01606Y)
- ✿ *Discovering Computer Science & Programming through Scratch: Facilitators Guide* (01607F)
- ✿ <http://www.4-hmall.org/Category/computer.aspx>

GOING FURTHER

- ✿ Share the ways you use a computer with an adult
- ✿ Understand technology needs in your community
- ✿ Organize a team to identify and set goals for community technology needs
- ✿ Contact community partners for your goals
- ✿ Develop an activity plan
- ✿ Teach a class on computers using the 4-H curriculum

TAKE IT FURTHER!

- ✿ Enter your computer programming or engineering design in a local science fair
- ✿ Sign up for classes provided by your school or community education programs
- ✿ Tour a local computer business (retail store, repair store, manufacturing company, etc.)
- ✿ Compete in Showcase Showdown with a speech or demonstration about computers or create a Powerpoint to support a different speech topic

ENHANCE YOUR COMMUNICATION SKILLS

Prepare an educational presentation on how computer programming works and enter it in your county fair

Demonstrate how to install a program or repair a computer

Create a display about different types of computers

GET INVOLVED IN CITIZENSHIP AND SERVICE

Do a presentation for older members of your community about how to use social networks to stay in touch with their family members

Volunteer to help maintain computers at your local community center or library

Help other youth, senior citizens or others interested in learning about computers

Offer to teach a class on computer care at your local community center or library

Volunteer to help younger children with computer work at a community center

Start a printer cartridge recycling program at your school

LEARN ABOUT LEADERSHIP

Teach younger kids how to be safe when using social media

Organize a field trip to a local lab, business or industry to learn how computers and technology inform what they do

Plan a computer recycling day in your community

EXHIBIT IDEAS

- ✿ Make a poster on parts of a computer
- ✿ Create a display about social media etiquette and safety
- ✿ Exhibit a computer game you wrote
- ✿ Build your own computer and exhibit it
- ✿ Create a labeled chart, graph, poster or 3-D display showing the components of a computer and how it works
- ✿ Develop a display of consumer choices involved when buying a computer
- ✿ Create a display about computer technology, languages or hardware other than monitors, keyboards or disk drives
- ✿ Write a report of a study on a computer science career. Include positions available, skills needed, course work needed to obtain job skills and programs offered at universities and other institutions that relate to the career
- ✿ Develop software. Include a statement of objectives and a discussion of the program
- ✿ Create cards, certificates, calendar, programs flyers on your computer
- ✿ Design a simple newsletter for your club or another group using columns, charts, tables, graphs or other special features
- ✿ Create a spread sheet showing income and expense (invent data or use for another 4-H project such as a livestock project, babysitting, lawn mowing)
- ✿ Design a web page (for 4-H Club, project group, sports club etc.)

Issued in furtherance of extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Glen Whipple, director, University of Wyoming Extension, University of Wyoming, Laramie, Wyoming 82071. The University is committed to equal opportunity for all persons in all facets of the University's operations. All qualified applicants for employment and educational programs, benefits, and services will be considered without regard to race, color, religion, sex, national origin, disability or protected veteran status or any other characteristic

