



## Computers Project Brief

### Learning Objectives

- Experience plugging in different peripherals to the application port on your computer
- Build your own computer system
- Detect a computer problem and solve it
- Explain how a computer works
- Explain screen resolution and how it compares to TV sets and HDTV
- Use a database like Excel to organize and process information
- Explore file structures and practice moving and copying files
- Understand file extensions and explain what they mean
- Use a spreadsheet to make graphs and charts
- Create your own computer program

### Fair Projects

- Identify the parts inside a computer
- Develop a checklist for evaluation of Websites on accuracy, timeliness and objectivity
- Design a Website using a Web editor or HTML
- Design a multimedia presentation
- Use a digital camera to create a slide show

### Demonstration Ideas

- Using your computer keyboard, create and send an e-mail letter
- Demonstrate your ability to use the mouse through the game of computer solitaire
- Clean your computer's hard drive
- Explain how a computer works
- Explain screen resolution and how it compares to TV sets and HDTV
- Evaluate a piece of software based on usability and price
- Use word-processing software to produce a letter
- Use a graphics program to design images
- Run a virus check program

### Field Trips

- Local electronics store
- Local computer repair shop
- TV or radio station

### Ideas for Speech Topics

- Describe how computers are used in various careers
- Identify how microprocessors are a part of your everyday life
- Investigate the future uses of computer technology in the home
- Explain the difference between RAM and ROM
- Explain how a computer works
- Explain screen resolution and how it compares to TV sets and HDTV
- Internet safety rules and netiquette

### Critical Thinking

- How do web browsers differ from each other?
- Why do some pages take longer to download than others?
- How can you enhance your websites for persons with disabilities?
- List the ways computers are used in education? Jobs? Etc.
- Why is it important to understand the different parts of a computer and their functions?
- How would you help others with your computer knowledge?
- What are some of the safety issues with computers?

### Community Service

- Make a list of how computers are used in the home, school, or your community
- Use your computer to research historical events in your community
- Set up a Computer Recycling program for your community
- Organize your project group to hold computer classes in your community.

### Science & Technology

How have you used science and technology in this project area?

Examples:

- Gather data on how many families in your community have a home computer
- Demonstrate to others how to load a new program on your computer
- Take apart and reconstruct a computer so that it works better

## Show Me Character

Trustworthiness - includes honesty, promise keeping and loyalty.

- Do what you say you're going to do
- Be consistent and keep your promises
- Be a friend that can be counted upon

**Respect** - includes courtesy and proper treatment of people and things.

- Act on the assumption that others have the best intentions
- Treat others as you like to be treated
- Treat equipment entrusted to you carefully and keep it safe, as if it was your own

**Responsibility** - includes the pursuit of excellence, accountability and perseverance.

- Don't overextend yourself, so you can give your best effort to things you commit to
- Admit your mistakes and learn from them
- Rest if you need to, but don't quit

**Fairness** - involves consistently applying rules and standards appropriately for different age groups and ability levels.

- Live the standards that you set for others
- Treat others as you like to be treated
- Know what's "equal" and what's "equitable"

**Caring** - promoting the well being of people and things in a young person's world. It denotes action and not just feelings.

- Remember that people have feelings
- Know that others want to do well also
- Help others feel good about themselves

**Citizenship** - includes making the home community and county a better place to live for themselves and others.

- Know how your government works
- Be willing to voice your opinion
- Follow the rules, obey the law, and expect the same of others

## Show Me Standards

Missouri 4-H members will acquire the knowledge and skills to gather, analyze and apply information and ideas, communicate effectively, recognize and solve problems, make decisions and act as responsible members of society.

4-H members will acquire a solid foundation which includes knowledge of:

- **Mathematics**- data analysis, probability and statistics.
- **Science**- processes of scientific inquiry and impact of science, technology and human activity on resources and the environment.
- **Communication Arts**- participating in formal and informal presentations and discussions of issues and ideas.

## Resources

### 891 Computers Unit 1

Y8910 Newbie Know How

### 892 Computers Unit 2

Y8920 Inside the Box + CD

### 893 Computers Unit 3

Y8930 Peer to Peer

### 894 Computers Unit 4

Y8940 Teens Teaching Tech

## To Order

Extension Publications online at <http://extension.missouri.edu/explore/shop/> or by phone 1-800-292-0969

For additional resources check with your local University of Missouri Extension Center or the 4-H Source Book at <http://www.4-hmall.org/educationalresources.aspx>.