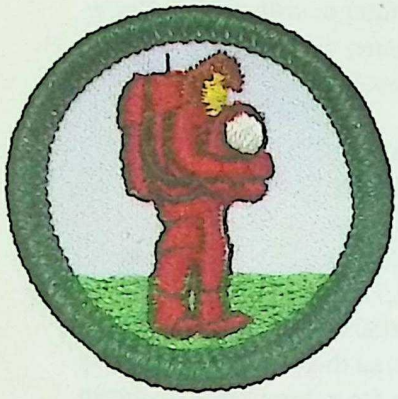
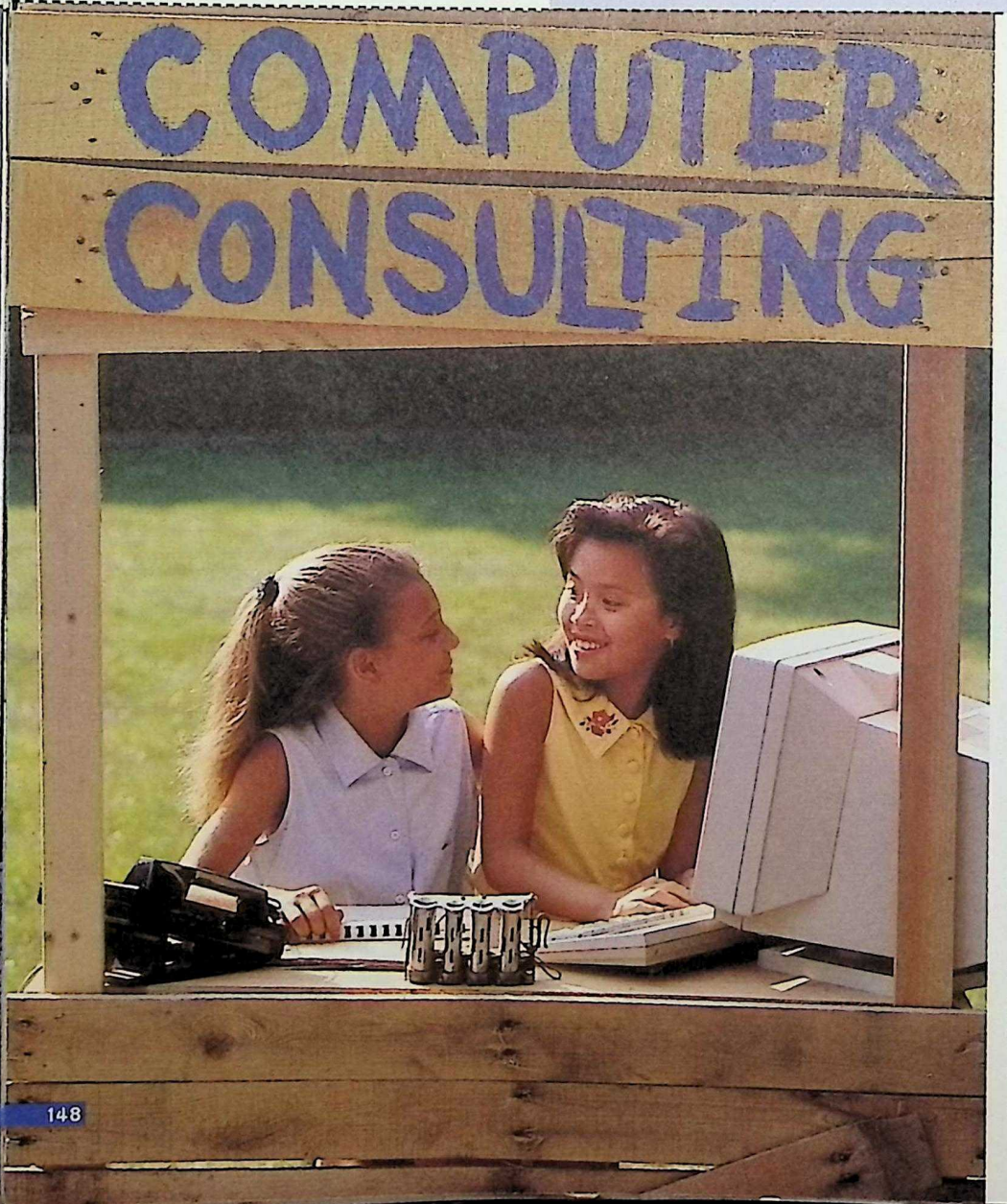
Discovering Technology



How does a computer do what it is supposed to do? How does a CD store all that music? What makes a car run? To figure out the answers to those questions, you have to understand technology. Technology is the science of the way things work. Do some exploring into the past and future of technology.



1. Just for Practice

Use a software program to build or design something, or map something.

2. All Things Digital

Chips aren't just in cookies! They are in computers, clocks, coffee makers, cars—even toys. With your troop, group, friends, or family, divide into two teams. Each team creates a list of 20 things that have a computer chip in them. Swap lists. Each team then searches for the items. When you meet again, see who has found the most items.

3. Find the Inventions

There are lots of hobbies and activities you can do that use technology. Do the "Test Yourself: Find the Inventions" activity in the "Create and Invent" chapter of your *Junior Girl Scout Handbook*.

4. Outdoors Technology

Read the sports section of the "Be Healthy, Be Fit" chapter and the "Let's Get Outdoors" chapter of your *Junior Girl Scout Handbook*, or in this book. Find examples of the uses of technology outdoors and in sports activities.

5. Technology to Wear

Visit an artisan who makes useable or wearable art, such as jewelry, clothing, or pottery. Find out what technologies are used and how those technologies (specific tools, machinery, materials) have changed through history. Find out if the technologies have been adapted or improved upon by different cultures. Discuss the differences between a product made by an artisan and a product that is made by a machine.

6. The Inner Workings

Under the guidance of an adult, pick an item and learn how to put it together, take it apart, care for it, or make simple repairs to it. Some suggestions:

- Hook up and care for a computer and its various hardware attachments, including the printer.
- Hook up and care for a sound system, including the speakers.
- Take care of and change a battery in an electric toothbrush, a watch, clock, or kitchen appliance.
- Maintain a bicycle, including the tires, moving parts, and brake system.

7. Tools to Make Life Easier

With the help of an adult, compare the following items to their simpler counterparts. Which item is more useful? Which is easier to use? Discuss your findings with your group or peers.

- An electric screwdriver vs. a manual screwdriver
- An electric can opener vs. a manual can opener
- A flashlight vs. a candle
- A computer vs. a pencil
- A car vs. a horse and wagon
- Man-made fleece vs. wool



8. Recycling Technology

Where do garbage and recycled products go? How do you get rid of obsolete machines? Find out how things are recycled in your community by doing one of the following:

- Visit a recycling center or landfill facility and find out what materials are recycled and where they go.
- Pick a product, such as a toy, a piece of clothing, a personal computer, motor oil, or a car. Find out what the options are for recycling or disposing of this product in your community—other than a trip to the landfill. Find a way to encourage your family or community to recycle.
- Find at least three products made from recycled materials. (You can check out catalogs, the Internet, or your local mall for ideas.) Compare those products with products made from non-recycled materials in terms of price and usability.

9. The Future Is Here

Investigate a new or developing type of technology that looks exciting to you. Some examples: computer sensory recognition (voice, handwriting, or optical), distance learning, nanotechnology (microscopic machines), gene therapy, or robotics. What are the strengths of the technology? What are its drawbacks? How might you use it in your life? When will it be practical (in terms of cost, ease of use, and safety) or is it practical already? If possible, visit a technology fair, trade show, or showroom for a company that specializes in technology. Or visit a museum that focuses on technology, investigate products online, or in technology related magazines.

10. Then and Now

Discover how technology has changed the way things are done. Pick at least three careers and find out how technology is used in each of them. Has technology changed the jobs, or the way the jobs are performed? Share your findings with your troop or group by role playing, participating in a panel discussion, or hosting a discussion by people in those professions.

