



# Digital Technology

## Merit Badge Study Guide

• Organize thoughts to prepare • Take notes • Keep track of progress

Merit badge counselors may not require the use of this or any other workbook. Scouts must still demonstrate that they have learned the material and can perform each required skill. If a requirement directs you to discuss, show, "tell, explain, demonstrate, identify, or anything similar, the requirement must be completed as written. No one may add to or remove anything from the official requirements listed in Scoutbook or on [scouting.org/skills/merit-badges](https://scouting.org/skills/merit-badges).

The requirements were revised in 2026 • This guide was updated in January 2026.

Scout's Name: \_\_\_\_\_ Unit \_\_\_\_\_ Date Started \_\_\_\_\_

Counselor's Name: \_\_\_\_\_ Phone No.: \_\_\_\_\_ Email: \_\_\_\_\_

Read the [merit badge pamphlet](#).

View helpful online video resources for each requirement at [scouting.org/merit-badges/digital-technology](https://scouting.org/merit-badges/digital-technology).

- 1. View the Personal Safety Awareness "Digital Safety" video (with your parent or guardian's permission).
- 2. Do the following:
  - a. Give a brief history of the changes in digital technology over time.


- Discuss with your counselor how digital technology in your lifetime compares with that of your parent's, grandparent's, or other adult's lifetime.


- b. Describe what kinds of computers or devices you imagine might be available when you are an adult.


## 3. Do the following:

a. Explain to your counselor how text, sound, and pictures are digitized for storage.

Text	
Sound	
Pictures	

b. Describe the difference between lossy and lossless data compression, and give an example where each might be used.

Lossy	
Example:	
Lossless	
Example:	

c. Describe two digital devices and how they are made more useful by their programming.

1.	
2.	

d. Discuss the similarities and differences between computers, mobile devices, and gaming consoles.

	similarities	differences
Computers		
Mobile devices		
Gaming consoles		

e Explain what a computer network is and the difference between a local area network (LAN) versus a wide area network (WAN)

The difference between a local area network (LAN) versus a wide area network (WAN)

WAN

4. Do the following:

- Explain what a program or software application or "app" is and how a computer uses a CPU and memory to execute it.

b. Name four software programs or mobile apps you or your family use, and explain how each one helps you.

1.


c. Describe what malware is, and explain how to protect your digital devices and the information stored on them.

d. Explain what a barcode, a QR code, and an RFID tag are along with the data they contain and two or more examples where each are used.

5. Do the following:

a. Describe how at least two different ways data can be transferred through the internet.

1	
2	

b. Using an internet search engine (with your parent or guardian's permission), find ideas from at least three different websites about how to conduct a troop court of honor or campfire program. Present the ideas to your counselor, and explain how you used a search engine to find this information.

- c. Use a Web browser to connect to an HTTPS (secure) website (with your parent's permission).  
 Explain to your counselor how to tell whether the site's security certificate can be trusted, and what it means to use this kind of connection.

6. Do THREE of the following. For each project you complete, copy the files to a backup device and share the finished projects with your counselor.

- a. Using a spreadsheet or database program, develop a food budget for a patrol weekend campout OR create a troop roster that includes the name, rank, patrol, and telephone number of each Scout. Show your counselor that you can sort the roster by each of the following categories: rank, patrol, and alphabetically by name.
- b. Using a word processor, write a draft letter to the parents of your troop's Scouts, inviting them to a troop event.
- c. Using a graphics program, design and draw a campsite plan for your troop OR create a flier for an upcoming troop event, incorporating text and some type of visual such as a photograph or an illustration.
- d. Using a presentation software program, develop a report about a topic approved by your counselor. For your presentation, create at least five slides, with each one incorporating text and some type of visual such as a photograph or an illustration.
- e. Using a digital device, take a picture of a troop activity. Send or transfer this image to a device where it can be shared with your counselor.
- f. Make a digital recording of your voice, transfer the file to a different device, and have your counselor play back the recording.
- g. Create a blog and use it as an online journal of your Scouting activities, including group discussions and meetings, campouts, and other events. Include at least five entries and two photographs or illustrations. Share your blog with your counselor. You need not post the blog to the Internet; however, if you choose to go live with your blog, you must first share it with your parents AND counselor AND get their approval.
- h. Create a Web page for your troop, patrol, school, or place of worship. Include at least three articles and two photographs or illustrations. Include at least one link to a website of interest to your audience. You need not post the page to the Internet; however, if you decide to do so, you must first share the Web page with your parents AND counselor AND get their approval.

## 7. Do the following:

a. Explain to your counselor each of these protections and why they exist: copyright, patents, trademarks, trade secrets.

	What they do	Why they exist
Copyright		
Patents		
Trademarks		
Trade secrets		

b. Explain when it is permissible to accept a free copy of a program from a friend.


c. Discuss with your counselor an article or (with your parent or guardian's permission) a report on the internet about a recent legal case involving an intellectual property dispute.


8. Do TWO of the following:

a. Describe why it is important to properly dispose of digital technology. List at least three hazardous chemicals that could be used to create digital devices or used inside a digital device.

b. Explain to your counselor why it is important to use a certified recycler of digital technology hardware or devices.

c. Do an internet search for an organization that collects discarded digital technology hardware or devices for repurposing or recycling. Find out what happens to that waste. Share with your counselor what you found.

d. Visit a recycling center that disposes of digital technology hardware or devices. Find out what happens to that waste. Share what you learned with your counselor.

e. Find a battery recycling center near you and find out what it does to recycle batteries. Share what you have learned with your counselor about the proper methods for recycling batteries.

**9. Careers. Do ONE of the following:**

- (a) Explore careers related to the Digital Technology merit badge. Research one career to learn about the training and education needed, costs, job prospects, salary, job duties, and career advancement. Your research methods may include -- with your parent or guardian's permission -- an internet or library search, an interview with a professional in the field, or a visit to a location where people in this career work. Discuss with your counselor both your findings and what about this profession might make it an interesting career.

Career: \_\_\_\_\_

Training	_____
Education	_____
Costs	_____
Job Prospects	_____
Salary	_____
Job Duties	_____
Career Advancement	_____
Advancement opportunities	_____
Career goals associated with this career	_____

- Discuss with your counselor both your findings and what about this profession might make it an interesting career.

Notes: \_\_\_\_\_

Notes:	_____
Notes:	_____
Notes:	_____

- (b) Explore how you could use knowledge and skills from the Digital Technology merit badge to pursue a hobby or interest. Research any training needed, expenses, and organizations that promote or support it. Discuss with your counselor what short-term and long-term goals you might have if you pursued this.

Notes: \_\_\_\_\_

Notes:	_____
Notes:	_____
Notes:	_____