

Digital Technology

Merit Badge Workbook



Merit badges are earned by doing: reading the pamphlet, practicing the skills, and showing your counselor what you have learned.
This workbook gives you a place to organize your notes and track your progress along the way.
Merit badge counselors may not require the use of this or any similar workbook.
You still must satisfy your counselor that you can demonstrate each skill and have learned the information.
Use the space under each requirement to note what you have done and what you want to talk about, not to write out full answers.
When a requirement says discuss, show, tell, explain, or demonstrate, that is what you must do.
No one may add to or subtract from the official requirements found on scouting.org (Guide to Advancement 7.0.4.8).
Scouting America last updated this badge's requirements page on December 31, 2025.
Requirements change from time to time. Double-check scouting.org before you start.

Scout's name: _____ Unit: _____ Date started: _____

Counselor's name: _____ Phone no.: _____ Email: _____

Links marked "Scouting America resources" are the ones Scouting America shares on its official badge page.
Links marked "ScoutSmarts" open the matching part of Cole's guide. This workbook is unofficial and not endorsed by Scouting America.

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1. View the Personal Safety Awareness "Digital Safety" video (with your parent or guardian's permission).

Scouting America resources: Personal Safety Awareness (video)

Date I watched it _____ Parent or guardian who gave permission _____

Requirement 1 completed on _____ counselor initials _____

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.

Scouting America resources: Technology Evolution - 100,000 BCE to 2020 (video) · Past & Present Technology, Then & Now (video) Past and Present | Technology Then and Now (video) · **ScoutSmarts:** Requirement 2a explained

A brief history of the changes in digital technology over time

Adult I compared with _____

Digital technology then and now

Whose lifetime	Digital technology in that lifetime
My lifetime	
The adult's lifetime	

(b) Describe what kinds of computers or devices you imagine might be available when you are an adult.
Scouting America resources: Technologies of the Future (video) · **ScoutSmarts:** Requirement 2b explained

Computers or devices I imagine when I'm an adult

Requirement 2 completed on _____ counselor initials _____

3. Do the following:

(a) Explain to your counselor how text, sound, and pictures are digitized for storage.
Scouting America resources: What Is ASCII? (video) · How Images and Sound are Represented in a Computer (video)
ScoutSmarts: Requirement 3a explained

How each is digitized for storage

Type	How it's digitized
text	
sound	
pictures	

(b) Describe the difference between lossy and lossless data compression, and give an example where each might be used.
Scouting America resources: Lossy vs Lossless Data Compression (video) · **ScoutSmarts:** Requirement 3b explained

Lossy and lossless data compression

Compression	How it works	Example where it might be used
lossy		
lossless		

(c) Describe two digital devices and how they are made more useful by their programming.
Scouting America resources: Types of Digital Devices (video) · **ScoutSmarts:** Requirement 3c explained

Two digital devices

Digital device	How its programming makes it more useful

(d) Discuss the similarities and differences between computers, mobile devices, and gaming consoles.
Scouting America resources: Comparing PC to Gaming Consoles. (video) · Mobile vs Pc vs Console Gaming (website)
ScoutSmarts: Requirement 3d explained

Similarities

Differences

Device	How it differs from the others
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).

Scouting America resources: Difference Between LAN and WAN (video) · **ScoutSmarts:** Requirement 3e explained

What a computer network is

Network	What it is, and how it differs
local area network (LAN)	
wide area network (WAN)	

Requirement 3 completed on _____ counselor initials _____

4. Do the following:

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

Scouting America resources: How Computers Work (video) · What Is an App? (video) · How Computer Memory Works (video)
ScoutSmarts: Requirement 4a explained

What a program, software application, or app is

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.

Scouting America resources: Understandng Software Applications (video) · **ScoutSmarts:** Requirement 4b explained

Four programs or apps we use

Program or app	How it helps me or my family

(c) Describe what malware is, and explain how to protect your digital devices and the information stored on them.
Scouting America resources: What Is Malware? (video) · **ScoutSmarts:** Requirement 4c explained

What malware is

How to protect my 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 is used.

Item	What it is, and the data it contains	Two or more examples where it's used
barcode		
QR code		
RFID tag		

Requirement 4 completed on _____ counselor initials _____

5. Do the following:

(a) Describe at least two different ways data can be transferred through the internet.
Scouting America resources: How the Internet ACTUALLY Works ? (video) · This Is How Data Is Transferred in the Internet (video) Data Transfer Via the Internet Explained (video) · **ScoutSmarts:** Requirement 5a explained

Ways data can be transferred through the internet

Way	How it works

(b) Using an internet search engine (with a 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.
ScoutSmarts: Requirement 5b explained

Topic (court of honor or campfire program) _____ Search engine I used _____

Ideas from three websites

Website	Ideas I found

How I used the search engine to find this information

(c) Use a web browser to connect to an HTTPS (secure) website (with your parent or guardian'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.

Scouting America resources: What Is HTTPS? (video) · **ScoutSmarts:** Requirement 5c explained

HTTPS website I connected to _____ Date _____

How to tell whether the site's security certificate can be trusted

What it means to use this kind of connection

Requirement 5 completed on _____ counselor initials _____

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.

My three projects

Project	Backup device I copied the files to	Shared with counselor (date)

☐ **(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.

Scouting America resources: Introduction to Spreadsheets (video)

Program I used _____ Food budget or troop roster _____

- ☐ Sorted the roster by rank
- ☐ Sorted the roster by patrol
- ☐ Sorted the roster alphabetically by name

☐ **(b)** Using a word processor, write a draft letter inviting the parents or guardians of your troop's Scouts to a troop event.

Scouting America resources: Word Processing Tutorial (video)

Word processor I used _____ Troop event _____

☐ **(c)** Using a graphics program, design and draw a campsite plan for your troop OR create a flyer for an upcoming troop event, incorporating text and some type of visual such as a photograph or an illustration.

Scouting America resources: Google Drawing Basics (video)

Graphics program I used _____ Campsite plan or event flyer _____

☐ **(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.

Scouting America resources: Google Slides for Presentations (video)

Presentation program I used _____ Topic my counselor approved _____

My slides

Slide	Text	Visual
1		
2		
3		
4		
5		

☐ **(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.

Scouting America resources: Sending Photos on a Smartphone (video)

Troop activity _____ Device I used _____ Transferred to _____

☐ **(f)** Make a digital recording of your voice, transfer the file to a different device, and have your counselor play back the recording.

Scouting America resources: How to Make an Audio File With a Smartphone (video)

Recorded on _____ Transferred to _____ Date played back _____

☐ **(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 parent or guardian AND counselor AND get their approval.

Scouting America resources: How to Write a Blog Post for Beginners: From Start to End (video)

Blog program or site I used _____

My blog entries

Entry	Date	Scouting activity
1		
2		
3		
4		
5		

☐ Two photographs or illustrations
☐ Shared with my counselor
☐ If going live: approved by parent or guardian and counselor

☐ **(h)** Create a webpage 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 webpage with your parent or guardian AND counselor AND get their approval.

Scouting America resources: How to Create a Simple Webpage (video)

Webpage is for (troop, patrol, school, or place of worship) _____

- ☐ Article 1
- ☐ Article 2
- ☐ Article 3
- ☐ Photograph or illustration 1
- ☐ Photograph or illustration 2
- ☐ Link to a website of interest
- ☐ If going live: approved by parent or guardian and counselor

Requirement 6 completed on _____ counselor initials _____

7. Do the following:

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

Scouting America resources: Explanations of Copyrights, Patents, Trademarks, Trade Secrets (video) · **ScoutSmarts:** Requirement 7a explained

Protection	What it protects	Why it exists
copyright		
patents		
trademarks		
trade secrets		

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

Scouting America resources: Digital Etiquette for Teenagers (video) · **ScoutSmarts:** Requirement 7b explained

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.

Scouting America resources: Intellectual Property (website) · **ScoutSmarts:** Requirement 7c explained

Article or report _____ Source and date _____

The case, the intellectual property dispute, and what I think

Requirement 7 completed on _____ counselor initials _____

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.

Scouting America resources: What Are the Risks of Not Properly Disposing of Technology? (video)
3 Simple Tips for Recycling Old Electronics (video) · **ScoutSmarts:** Requirement 8a explained

Why it's important to properly dispose of digital technology

Three hazardous chemicals

Chemical	How it's used to create a device, or where it is inside one

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

Scouting America resources: How to (Properly) Get Rid of Your E-Waste (video) · **ScoutSmarts:** Requirement 8b explained

Why it's important to use a certified recycler

☐ **(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.

Scouting America resources: How E-Wastes Are Recycled (video)

Organization I found _____ Website _____

What happens to that waste

☐ **(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.

Scouting America resources: Finding an E-Waste Recycler (website)

Recycling center _____ Date visited _____

What happens to that waste

☐ **(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.

Scouting America resources: Finding a Battery Recycler (website)

Battery recycling center _____ Location _____

What it does to recycle batteries, and the proper methods

Requirement 8 completed on _____ counselor initials _____

9. 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.

Scouting America resources: Digital Technology Careers (video) · The NBA Data Scientist (video)

Career I researched _____ How I researched it _____

Topic	What I found
Training and education	
Costs	
Job prospects	
Salary	
Job duties	
Career advancement	

What might make it an interesting career

☐ **(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.

Scouting America resources: Tech Hobbies: The Best Technology Hobbies You Need to Try (video)
20 Computer Hobbies That Will Entertain You for Long (website)

Hobby or interest

Topic	What I found
Training needed	
Expenses	
Organizations that promote or support it	

Goals	If I pursued this
Short-term	
Long-term	

Requirement 9 completed on counselor initials

Counselor sign-off

Your counselor signs your blue card or approves the badge in Scoutbook, and your unit records it. This line is for your own records.

Counselor's signature Date completed

Official Scouting America resources

Scouting America resources: Digital Technology merit badge page (requirements and resources)
Digital Technology merit badge pamphlet (free PDF) · All merit badges · **ScoutSmarts:** Digital Technology Merit Badge Guide, Part 1
Digital Technology Merit Badge Guide, Part 2

Made by Cole at ScoutSmarts.com, an Eagle Scout who loves helping Scouts.
Spot an error or a requirement change? Tell me at scoutsmarts.com/contact.
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