



## Digital Technology Merit Badge Workbook

# SCOUTMASTER BUCKY

Scouts participating in a Scoutmaster Bucky merit badge opportunity, whether online or in person, should consider using the Digital Technology merit badge pamphlet for discovery and knowledge, along with the class preparation pages for clarifications, insights, and expectations.

<https://scoutmasterbucky.com/merit-badges/digital-technology/digital-technology-pamphlet.pdf>

<https://scoutmasterbucky.com/merit-badges/digital-technology/digital-technology-cpp.pdf>

**REQUIREMENTS 1, 5b, 5c, and 7b REQUIRE PARENT / GUARDIAN PERMISSION.**

**REQUIREMENT 6d REQUIRES COUNSELOR APPROVAL.**

**REQUIREMENT 1:** View the [Personal Safety Awareness "Digital Safety" video](#) (with your parent or guardian's permission).

**PARENT/GUARDIAN PERMISSION:** IS REQUIRED.

\_\_\_\_\_  
Parent's / Guardian's Name

\_\_\_\_\_  
Phone or Email

\_\_\_\_\_  
Parent's / Guardian's Signature

\_\_\_\_\_  
Date ☐ *permission*

<https://www.scouting.org/training/youth/scouts-bsa/>

choose the Digital Safety option

Notes:



# Digital Technology Merit Badge Workbook

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**REQUIREMENT 2a:** Give a brief history of the changes in digital technology over time.

Notes:

**REQUIREMENT 2a:** Discuss with your counselor how digital technology in your lifetime compares with that of your parent's, grandparent's, or other adult's lifetime.

Notes:



## Digital Technology Merit Badge Workbook

# SCOUTMASTER BUCKY

**REQUIREMENT 2b:** Describe what kinds of computers or devices you imagine might be available when you are an adult.

Notes:

**REQUIREMENT 3a:** Explain to your counselor how text, sound, and pictures are digitized for storage.

Text:

Sound:

Pictures:



## Digital Technology Merit Badge Workbook

# SCOUTMASTER BUCKY

<b>REQUIREMENT 3b:</b> Describe the difference between lossy and lossless data compression, and give an example where each might be used.	
LOSSY	LOSSLESS
Differences:	Differences:
When Used:	When Used:
<b>REQUIREMENT 3c:</b> Describe two digital devices and how they are made more useful by their programming.	
Device #1:	
Device #2:	



**REQUIREMENT 3d:** Discuss the similarities and differences between computers, mobile devices, and gaming consoles.

Notes:



# Digital Technology Merit Badge Workbook

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**REQUIREMENT 3e:** Explain what a computer network is.

Notes:

**REQUIREMENT 3e:** Explain the difference between a local area network (LAN) versus a wide area network (WAN).

Notes:



# Digital Technology Merit Badge Workbook

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**REQUIREMENT 4a:** Explain what a program or software application or "app" is.

Notes:

**REQUIREMENT 4a:** Explain how a computer uses a CPU and memory to execute it.

Notes:

**REQUIREMENT 4b:** Name four software programs or mobile apps you or your family use, and explain how each one helps you.

SOFTWARE PROGRAM / MOBILE APPLICATION #1:

Name:

How this program / mobile app helps:



# Digital Technology Merit Badge Workbook

## SCOUTMASTER BUCKY

### SOFTWARE PROGRAM / MOBILE APPLICATION #2:

Name:

How this program / mobile app helps:

### SOFTWARE PROGRAM / MOBILE APPLICATION #3:

Name:

How this program / mobile app helps:

### SOFTWARE PROGRAM / MOBILE APPLICATION #4:

Name:

How this program / mobile app helps:





# Digital Technology Merit Badge Workbook

## SCOUTMASTER BUCKY

**REQUIREMENT 4c:** Describe what malware is.

Notes:

**REQUIREMENT 4c:** Explain how to protect your digital devices and the information stored on them.

Notes:

**REQUIREMENT 5a:** Describe at least two different ways data can be transferred through the internet.

Way #1:

Way 2:



## Digital Technology Merit Badge Workbook

# SCOUTMASTER BUCKY

**REQUIREMENT 5b:** 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.

**PARENT/GUARDIAN PERMISSION:** IS REQUIRED.

\_\_\_\_\_  
Parent's / Guardian's Name

\_\_\_\_\_  
Phone or Email

\_\_\_\_\_  
Parent's / Guardian's Signature

\_\_\_\_\_  
Date ☐ *permission*

Don't forget to bring your print outs with you to share with the merit badge counselor

**This requirement must be reviewed with your merit badge counselor.**

**BE PREPARED!**

Website #1:

Website #2:

Website #3:

Notes:



## Digital Technology Merit Badge Workbook

# SCOUTMASTER BUCKY

**REQUIREMENT 5c:** Use a web browser to connect to an HTTPS (secure) website (with your parent or guardian's permission).

**PARENT/GUARDIAN PERMISSION:** IS REQUIRED.

\_\_\_\_\_  
Parent's / Guardian's Name

\_\_\_\_\_  
Phone or Email

\_\_\_\_\_  
Parent's / Guardian's Signature

\_\_\_\_\_  
Date ☐ *permission*

Website:

**REQUIREMENT 5c:** 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.

Notes:



# Digital Technology Merit Badge Workbook

## SCOUTMASTER BUCKY

**DO THREE OF THE FOLLOWING (5A, 5B, 5C, or 5D) FOR REQUIREMENT 5**

**REQUIREMENT 6:** For each project you complete, copy the files to a backup device, and share the finished projects with your counselor.

**REQUIREMENT 6a:** 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.

Be sure to bring any completed work on a thumb drive to share with the merit badge counselor

**This requirement must be reviewed with your merit badge counselor.**

**BE PREPARED!**

**REQUIREMENT 6b:** Using a word processor, write a draft letter to the parents of your troop's Scouts, inviting them to a troop event.

Be sure to bring any completed work on a thumb drive to share with the merit badge counselor

**This requirement must be reviewed with your merit badge counselor.**

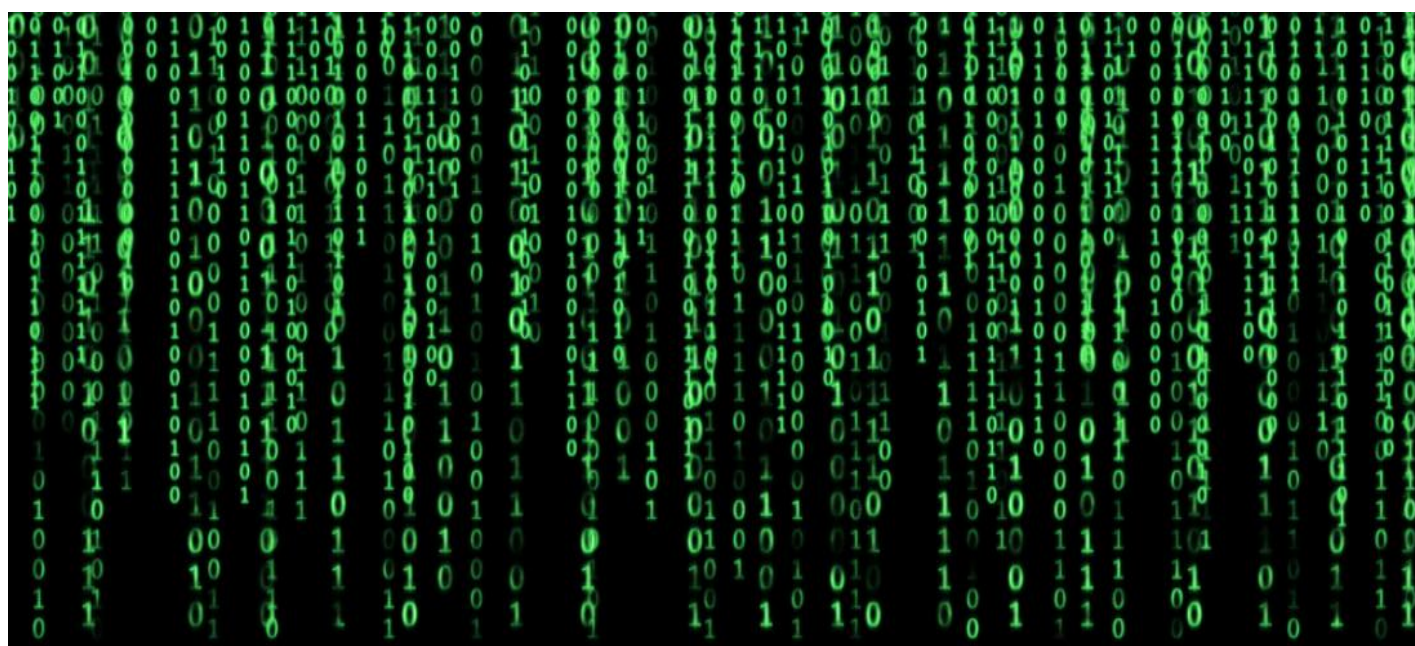
**BE PREPARED!**

**REQUIREMENT 6c:** 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.

Be sure to bring any completed work on a thumb drive to share with the merit badge counselor

**This requirement must be reviewed with your merit badge counselor.**

**BE PREPARED!**





## Digital Technology Merit Badge Workbook

# SCOUTMASTER BUCKY

**REQUIREMENT 6d:** 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.

Topic:

**COUNSELOR APPROVAL:** IS REQUIRED.

Counselor's Name

Phone or Email

Counselor's Signature

Date

☐

*approved*

Be sure to bring any completed work on a thumb drive to share with the merit badge counselor

**This requirement must be reviewed with your merit badge counselor.**

**BE PREPARED!**

**REQUIREMENT 6e:** 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.

Be sure to bring any completed work on a thumb drive to share with the merit badge counselor

**This requirement must be reviewed with your merit badge counselor.**

**BE PREPARED!**

**REQUIREMENT 6f:** Make a digital recording of your voice, transfer the file to a different device, and have your counselor play back the recording.

Be sure to bring any completed work on a thumb drive to share with the merit badge counselor

**This requirement must be reviewed with your merit badge counselor.**

**BE PREPARED!**





## Digital Technology Merit Badge Workbook

# SCOUTMASTER BUCKY

**REQUIREMENT 6g:** 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.

**REQUIREMENT 6h:** 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.

**DO NOT POST YOUR BLOG or WEB PAGE WITHOUT PARENT AND COUNSELOR APPROVAL**

**REQUIREMENT 7a:** Explain to your counselor each of these protections and why they exist: copyright, patents, trademarks, trade secrets.

Copyright:



# Digital Technology Merit Badge Workbook

## SCOUTMASTER BUCKY

Patents:

Trademarks:

Trade Secrets:





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# SCOUTMASTER BUCKY

**REQUIREMENT 7b:** Explain when it is permissible to accept a free copy of a program from a friend.

Patents:

**REQUIREMENT 7c:** 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.

Article or Report:

**PARENT/GUARDIAN PERMISSION:** IS REQUIRED.

\_\_\_\_\_  
Parent's / Guardian's Name

\_\_\_\_\_  
Phone or Email

\_\_\_\_\_  
Parent's / Guardian's Signature

\_\_\_\_\_  
Date ☐ permission

Notes:





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# SCOUTMASTER BUCKY

**DO TWO OF THE FOLLOWING (8A, 8B, 8C, 8D, or 8E) FOR REQUIREMENT 8**

**REQUIREMENT 8a:** Describe why it is important to properly dispose of digital technology.

Notes:

**REQUIREMENT 8a:** List at least three hazardous chemicals that could be used to create digital devices or used inside a digital device.

Chemical #1:

Chemical #2:

Chemical #3:

Notes:



## Digital Technology Merit Badge Workbook

# SCOUTMASTER BUCKY

**REQUIREMENT 8b:** Explain to your counselor why it is important to use a certified recycler of digital technology hardware or devices.

Notes:

**REQUIREMENT 8c:** 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.

Organization and Website:

Notes:



# Digital Technology Merit Badge Workbook

## SCOUTMASTER BUCKY

**REQUIREMENT 8d:** Visit a recycling center that disposes of digital technology hardware or devices.

Recycling Center and Location:

**REQUIREMENT 8d:** Find out what happens to that waste. Share what you learned with your counselor.

Notes:



## Digital Technology Merit Badge Workbook

# SCOUTMASTER BUCKY

**REQUIREMENT 8e:** Find a battery recycling center near you.

Battery Recycling Center and Location:

**REQUIREMENT 8e:** Find out what it does to recycle batteries. Share what you have learned with your counselor about the proper methods for recycling batteries.

Notes:



## Digital Technology Merit Badge Workbook

# SCOUTMASTER BUCKY

**DO ONE OF THE FOLLOWING (9A or 9B) FOR REQUIREMENT 9**

**REQUIREMENT 9a:** Identify three career opportunities that involve digital technology.

Career Opportunity #1:

Career Opportunity #2:

Career Opportunity #3:

**REQUIREMENT 9a:** Pick one and investigate the education, training, and experience required for this profession. Discuss this with your counselor.

Selected Career Opportunity:

Education Requirements:

Training Requirements:

Experience Requirements:

**REQUIREMENT 9a:** Explain why this profession might interest you.

Notes:



## Digital Technology Merit Badge Workbook

# SCOUTMASTER BUCKY

**REQUIREMENT 9b:** Visit a business or an industrial facility that uses digital technology.

Business or Industrial Facility and Location:

**REQUIREMENT 9b:** Describe four ways digital technology is being used there. Share what you learned with your counselor.

Way #1:

Way #2:

Way #3:

Way #4: