

## Merit Badge Workbook

This workbook can help you but you still need to read the merit badge pamphlet. This Workbook can help you organize your thoughts as you prepare to meet with your merit badge counselor

## Merit Badge Counselors may not require the use of this or any similar workbooks.

You still must satisfy your counselor that you can demonstrate each skill and have learned the information. You should use the work space provided for each requirement to keep track of which requirements have been completed, and to make notes for discussing the item with your counselor, not for providing full and complete answers. If a requirement says that you must take an action using words such as "discuss", "show", "tell", "explain", "demonstrate", "identify", etc, that is what you must do. No one may add or subtract from the official requirements found on Scouting.org.

The requirements were last revised on January 1, 2024 • This workbook was updated in January 2024.

Scout's Name:		Unit	Date Started	
Counselor's Name	e:	Phone No.:	Email:	
			about this workbook to: Workbooks@USScouts.operit badge should be sent to: Merit.Badge@Sc	
	informati	on and resources that may assist you in	ww.scoutlife.org/programming, provides n completing the following requirements.	
_	Do the follo	-	ideo (with your parent or guardian's permissic	20)
b. Dis	scuss first aid	•	that could occur during programming activities	,
Еу	estrain			
St	epetitive ress juries			
Ot	ther			

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Programming	Scout's Name:
3.	
4. Intellectual pro	perty Do the following:
	four types of intellectual property used to protect computer programs.
☐ b. Describe the	e difference between licensing and owning software.
c. Describe the	e differences between freeware, open source, and commercial software, and why it is important to respect the
terms of use	e of each.

. Pr	ojects Do the	following:
a.	With your courant demonstrate	nselor's approval, choose a sample program. Modify the code or add a function or subroutine to it. De ate the modified program to your counselor
	Language	
	Environment	
	Industry	
	Program:	
		de or add a function or subprogram to it.
	Modify the coo	de or add a function or subprogram to it.
		de or add a function or subprogram to it.
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		de or add a function or subprogram to it.

	Debug and d	emonstrate the modified program
	Debugging	
	performed	
	-	
	-	
	L Demonstrate	the program
b.	With your cou	unselor's approval, choose a second programming language and development environment, different fror or requirement 5a and in a different industry from 5a. Then write, debug, and demonstrate a functioning
		our counselor, using that language and environment.
	Language	
	Environment Industry	
	Program	
	riogram	

Scout's Name: \_\_\_\_\_

	Debugging	
	performed	
	Demonstrate t	he program
C.	those used for	nselor's approval, choose a third programming language and development environment, different from requirements 5a and 5b and in a different industry from 5a or 5b. Then write, debug, and demonstrate a ogram to your counselor, using that language and environment.
	Environment	
	Industry	
	Program	

Scout's Name: \_\_\_\_\_

	Debugging	
	performed	
	Demonstrate t	he program
☐ d.		ne programs you wrote for requirements 5a, 5b, and 5c process inputs, how they make decisions based o
□ 4.	those inputs, a	and how they provide outputs based on the decision making.

Scout's Name: \_\_\_\_\_

Careers Find out about three career op	oportunities that require knowledge in programming.
1.	
2.	
3.	
Pick one and find out the education, train	ing, and experience required.
Career	
Education	
Training	
9	
Experience	
Experience	
Discuss this with value as weeken and avail	lain why this agree wints ha of intercet to you
Discuss this with your counselor and expi	lain why this career might be of interest to you.

the Guide to Advancement (BSA publication 33088).Important excerpts from that publication can be downloaded from <a href="http://usscouts.org/advance/docs/GTA-Excerpts-meritbadges.pdf">http://usscouts.org/advance/docs/GTA-Excerpts-meritbadges.pdf</a>.
You can download a complete copy of the Guide to Advancement from <a href="http://www.scouting.org/filestore/pdf/33088.pdf">http://www.scouting.org/filestore/pdf/33088.pdf</a>.