

Artificial Intelligence

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. Key Concepts. Define the following terms and share the meaning of each with your counselor: artificial intelligence (AI), artificial intelligence agents, automation, basic programming, bots, data, databases, digital workers, general AI, machine learning (ML), narrow AI, superintelligent AI, tasks, triggers, workflows, and variables.

ScoutSmarts: Requirement 1 explained

Key terms

Term	What it means, in my own words
artificial intelligence (AI)	
artificial intelligence agents	
automation	
basic programming	
bots	
data	
databases	
digital workers	
general AI	
machine learning (ML)	
narrow AI	
superintelligent AI	
tasks	
triggers	

Key terms (continued)

Term	What it means, in my own words
workflows	
variables	

Requirement 1 completed on _____ counselor initials _____

2. Artificial Intelligence (AI) Basics. Do the following and share what you learned with your counselor:

(a) Identify 10 examples of how AI is currently used in everyday life.

ScoutSmarts: Requirement 2a explained

Ten examples of AI in everyday life

Example	How AI is used

(b) Identify five examples of how AI is currently used in the workplace.

ScoutSmarts: Requirement 2b explained

Five examples of AI in the workplace

Example	How AI is used

(c) Identify five examples of how AI can be used at school or in support of your education.

ScoutSmarts: Requirement 2c explained

Five examples of AI at school or in my education

Example	How AI can be used

(d) Meet with your counselor and play 10 rounds of the "AI or Not?" game to determine if the presented scenario utilizes AI. Discuss your answers.

ScoutSmarts: Requirement 2d explained

Date played _____ With my counselor _____

AI or Not? rounds

Round	The scenario	AI or not?	Why I think so
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

(e) Create a timeline with five key milestones in the development of artificial intelligence.

ScoutSmarts: Requirement 2e explained

My AI timeline: five key milestones

Year	Milestone	Why it mattered

Requirement 2 completed on _____ counselor initials _____

3. Automation Basics. Do the following and share what you learned with your counselor:

(a) Identify 10 examples of how automation is currently used in everyday life.

ScoutSmarts: Requirement 3a explained

Ten examples of automation in everyday life

Example	How automation is used

(b) Identify five examples of how automation is currently used in the workplace.

ScoutSmarts: Requirement 3b explained

Five examples of automation in the workplace

Example	How automation is used

(c) Identify five examples of how automation can be used at school or in support of your education.

ScoutSmarts: Requirement 3c explained

Five examples of automation at school or in my education

Example	How automation can be used

(d) Explain how automation performs repetitive tasks without human intervention and how it reduces human error and optimizes resources.

ScoutSmarts: Requirement 3d explained

Performs repetitive tasks without human intervention

Reduces human error

Optimizes resources

(e) Create a timeline with five significant milestones in automation development.

ScoutSmarts: Requirement 3e explained

My automation timeline: five significant milestones

Year	Milestone	Why it mattered

Requirement 3 completed on _____ counselor initials _____

4. Ethics in AI. Do the following and share what you learned with your counselor:

(a) Research ethical concerns and responsible use in AI, including bias, privacy, and AI decision-making.

ScoutSmarts: Requirement 4a explained

Ethical concerns I researched

Concern	What I found	What responsible use looks like
bias		
privacy		
AI decision-making		

Other concerns I found, and my sources

(b) Meet with your counselor, play, and discuss five rounds of the "What Would You Do?" ethical decision-making scenarios.

ScoutSmarts: Requirement 4b explained

Date played _____ With my counselor _____

What Would You Do? rounds

Round	The scenario	What I would do, and why
1		
2		
3		
4		
5		

(c) Develop your own ethical guidelines for the use of AI.

ScoutSmarts: Requirement 4c explained

My own ethical guidelines for using AI

(d) What is the Turing test?

ScoutSmarts: Requirement 4d explained

The Turing test, in my own words

Requirement 4 completed on _____ counselor initials _____

5. Deepfakes. Do the following and share what you learned with your counselor:

(a) Explain what a deepfake is and how it can affect an individual.

ScoutSmarts: Requirement 5a explained

What a deepfake is

How it can affect a person

(b) Describe what actions to take if you or someone you know is impacted by a deepfake.

ScoutSmarts: Requirement 5b explained

Actions to take if I or someone I know is affected

Requirement 5 completed on _____ counselor initials _____

6. Developing AI Skills. Do the following and share what you learned with your counselor:

(a) Discuss the learning process for AI and its limitations.

ScoutSmarts: Requirement 6a explained

How AI learns

Its limitations

(b) Identify five methods of how to effectively communicate with AI.

ScoutSmarts: Requirement 6b explained

Five ways to communicate effectively with AI

Method	Why it helps

(c) Explain the importance of prompt engineering when using AI to create better output.

ScoutSmarts: Requirement 6c explained

Why prompt engineering matters for better output

(d) Demonstrate three examples of writing clear instructions for a school-related task.

ScoutSmarts: Requirement 6d explained

Example 1: the school task and my instructions

Example 2: the school task and my instructions

Example 3: the school task and my instructions

Requirement 6 completed on _____ counselor initials _____

7. Practical Application. Do ONE of the following:

☐ **(a)** With your counselor's approval, choose an artificial intelligence project based on your personal interest or a community need. Develop a plan outlining the project's objectives, data requirements, and potential ethical considerations. Implement the project utilizing appropriate artificial intelligence tools, languages, or platforms. Share your project with your counselor. Discuss the steps you followed to create the project and your experience during the process.

ScoutSmarts: Requirement 7a explained

My project _____ Counselor approved (date) _____

My project plan

Part of the plan	My notes
Objectives	
Data requirements	
Potential ethical considerations	

AI tools, languages, or platforms I used _____

Steps I followed, and my experience

☐ **(b)** With your counselor's approval, design a short lesson plan on AI and teach it to your patrol or a group of Scouts. The lesson should include an AI-generated age-appropriate explanation of AI, examples of how AI is used in both everyday life as well as in the workplace, and an interactive demonstration of how Scouts could utilize AI to assist them with a school assignment, Scouting activity, or rank advancement. Share information on the development process and teaching experience with your counselor.

ScoutSmarts: Requirement 7b explained

Who I taught _____ Date _____ Counselor approved (date) _____

- ☐ AI-generated age-appropriate explanation of AI
- ☐ Examples of AI in everyday life
- ☐ Examples of AI in the workplace
- ☐ Interactive demonstration for a school assignment, Scouting activity, or rank advancement

My lesson plan outline

How I developed it, and how teaching went

Requirement 7 completed on _____ counselor initials _____

8. Career Exploration. Do ONE of the following:

☐ **(a)** Identify three career opportunities that would use skills and knowledge in artificial intelligence or automation. Pick one and research the training, education, certification requirements, experience, and expenses associated with entering the field. Research the prospects for employment, starting salary, advancement opportunities, and career goals associated with this career. Discuss what you learned with your counselor and whether you might be interested in this career.

ScoutSmarts: Requirement 8a explained

Three careers in AI or automation

Career	Skills and knowledge it uses

The career I picked _____

My research on that career

Topic	What I found
Training	
Education	
Certification requirements	
Experience	
Expenses	
Prospects for employment	
Starting salary	
Advancement opportunities	
Career goals	

Might I be interested in this career? Why or why not

☐ **(b)** Interview an artificial intelligence or automation professional. Learn about their day-to-day work, the challenges they face, and their vision for the future of artificial intelligence or automation. Inquire about training, education, certification requirements, experience, and expenses associated with entering the field. Share what you learned with your counselor.

ScoutSmarts: Requirement 8b explained

Person I interviewed _____ Their job _____ Date _____

What I learned

Topic	What they told me
Day-to-day work	
Challenges they face	
Their vision for the future	
Training	
Education	
Certification requirements	
Experience	
Expenses of entering the field	

Requirement 8 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: Artificial Intelligence merit badge page (requirements and resources) · All merit badges
ScoutSmarts: Artificial Intelligence Merit Badge Guide, Part 1 · Artificial Intelligence 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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