



Artificial Intelligence

Scouts BSA · STEM

Name

Started

Completed

Artificial intelligence is already part of daily life, from voice assistants to video suggestions. This badge helps you understand how AI and automation work, where they fall short, and how to use them wisely and honestly. You'll even build or design something of your own.

Requirements

Every official requirement, in plain language. Check the official wording when you sign off (scouting.org/merit-badges/artificial-intelligence/). Tips and examples are ideas, not extra requirements.

- ☐ **1** Define each of these terms and explain it to your counselor: artificial intelligence (AI), AI agents, bots, digital workers, narrow AI, general AI, superintelligent AI, machine learning, automation, workflows, tasks, triggers, basic programming, variables, data, databases

Tip: Make flash cards for the key terms and try explaining each one to a family member in your own words.

2 AI basics

Tips for this section: List AI you use in a day, like maps or streaming suggestions. Play AI or Not with friends using pictures or text.

- ☐ **2a** Name 10 ways AI is used in everyday life today, and share them with your counselor

- ☐ **2b** Name five ways AI is used at work today, and share them with your counselor

- ☐ **2c** Name five ways AI can be used at school or to support your learning, and share them with your counselor

- ☐ **2d** Play 10 rounds of "AI or Not?" with your counselor, deciding whether each scenario uses AI, and discuss your answers

- ☐ **2e** Make a timeline of five key milestones in AI's development and share it with your counselor

3 Automation basics

Tips for this section: Look around your home and community for automation, like traffic lights or dishwashers, and explain the steps they follow.

Example for this section: Explain how an automatic sprinkler system works as steps: a timer or moisture sensor checks the soil, a controller decides whether to water, valves open for a set time, then close. Compare that fixed rule-following to AI, which learns patterns from examples.

- ☐ **3a** Name 10 ways automation is used in everyday life today, and share them with your counselor

- ☐ **3b** Name five ways automation is used at work today, and share them with your counselor

- ☐ **3c** Name five ways automation can be used at school or to support your learning, and share them with your counselor

- ☐ **3d** Explain to your counselor how automation handles repeated tasks without people, and how it cuts human error and makes better use of resources

- ☐ **3e** Make a timeline of five major milestones in automation and share it with your counselor

4 Ethics in AI

Tips for this section: Talk with your family about fair and honest AI use, including at school. Write your guidelines as a short list you can actually follow.

Example for this section: Your personal guidelines might say: "I'll tell my teacher when I use AI on schoolwork. I won't share my name, address, school, or photos with a chatbot. I'll double-check facts in a second source. I won't use AI to make fake images of real people."

- ☐ **4a** Research ethical concerns and responsible AI use, including bias, privacy, and decisions made by AI, and report your findings to your counselor

- ☐ **4b** With your counselor, go through 5 "What Would You Do?" ethics scenarios and discuss each decision

- ☐ **4c** Write your own ethical guidelines for using AI and share them with your counselor

- ☐ **4d** Explain the Turing test to your counselor

5 Deepfakes

Tips for this section: Look at examples of fake images or videos with a parent. Practice checking the source before you believe or share something.

Example for this section: Practice a response plan: if a shocking video of a celebrity shows up, pause before sharing, look for the original source, check whether trusted news outlets report it, and look for odd details like blurry edges or mismatched lighting. Then talk with a parent.

- ☐ **5a** Explain to your counselor what deepfakes are and the harm one can do to a person

- ☐ **5b** Describe to your counselor what to do if a deepfake affects you or someone you know

6 Building AI skills

Tips for this section: Try writing a few prompts for a chatbot, with a parent's permission, and see how changing your wording changes the answer. Notice when it makes mistakes.

Example for this section: Try prompt-writing with a parent: ask a chatbot "Tell me about bridges," then "Explain to a 7th grader how a suspension bridge holds weight, in three short paragraphs." Compare the answers and check one fact to see if it got anything wrong.

- ☐ **6a** Discuss with your counselor how AI learns and what its limits are

- ☐ **6b** Name five ways to communicate effectively with AI, and share them with your counselor

- ☐ **6c** Explain to your counselor why prompt engineering matters for getting better AI results

- ☐ **6d** Show your counselor three examples of clear instructions you wrote for a school task

7 Practical application: Choose 1 of 2

Tips for this section: Pick a project that fits your interests, or plan a lesson to teach younger scouts what AI is.

Example for this section: A project could be training a simple image classifier in a free classroom tool to tell recyclables from trash, using photos of objects (not people). Test it with new items, note where it fails, and explain why more varied examples helped.

- ☐ **7a** With counselor approval, pick an AI project based on your interests or a community need; plan its goals, data needs, and ethical issues, build it with suitable AI tools, then show your counselor and discuss your steps and experience

- ☐ **7b** With counselor approval, plan and teach a short AI lesson to your patrol or other Scouts, including an AI-generated age-appropriate explanation, everyday and workplace examples, and a hands-on demo of AI helping with schoolwork, Scouting, or rank; discuss it with your counselor

8 Career exploration: Choose 1 of 2

Tips for this section: Look into AI jobs and the skills they need. If you interview someone, prepare your questions ahead of time.

- ☐ **8a** Find three careers that use AI or automation skills; research one's training, education, certifications, experience, costs, job outlook, starting pay, and advancement, then discuss it and your interest in it with your counselor

- ☐ **8b** Interview an AI or automation professional about their daily work, challenges, view of the field's future, and the training, education, certifications, experience, and costs to enter it; share what you learned with your counselor