

Pi Day 2026 Merit Badge Prerequisites

Animation

Katie Grassel (katie.grassel@gmail.com)

- Prerequisites:
- Requirements and Free Pamphlet Download: [Animation Merit Badge | Scouting America](#)

Art

Brian Smits (bsmits101@yahoo.com)

- Requirements List and Free Pamphlet Download: [Art Merit Badge | Scouting America](#)

Chess

Christopher George (cgbrewmaster@gmail.com)

- Prerequisites:
 - Please have the individual you have taught to play chess send an email to Mr. George (cgbrewmaster@gmail.com) with the following details. Please copy Mrs. Medinger (jessmedinger06@gmail.com) and your unit leader in this email.
 - Date they were taught
 - Who taught them
 - Please have the email sent one week prior to the class
 - Please note that handwritten notes or printed, signed pages given the day of the class will not be accepted
 - Please send an email to Mr. George (cgbrewmaster@gmail.com) at least one week prior to the class, covering the history and accomplishments of a famous chess player of the participant's choice consisting of at least three paragraphs. Please copy Mrs. Medinger (jessmedinger06@gmail.com) in this email. Please note that handwritten or printed submissions the day of the class will not be accepted.
- Requirements List and Free Pamphlet Download: [Chess Merit Badge | Scouting America](#)

Coin Collecting

Terry Sherman (trsherman@uwalumni.com)

- Class Description
 - Become a numismatist! In this session, Scouts will explore the history, art, and manufacturing of money. We will learn how the U.S. Mint produces billions of coins, how to identify mint marks and designers' initials, and how to safely store and preserve a collection. We will also dive into the various modern circulating commemorative programs, including the 50 State Quarters and the new American Women Quarters. By the end of this class, Scouts will understand how to "read" a coin's story and how to start a collection that could last a lifetime.
- Prerequisites & What to Bring
 - To help us complete this badge in one session, Scouts should try and bring the specific coins from requirement 4. It's ok if you cannot complete all as we will have a complete set for you to view, but please make a scouters effort to try!
 - If you have items to meet requirement 7, such as world currency or tokens feel free to share about them! If not, that's Ok, we will have time to do a vertical museum visit.
 - If you choose to bring and share your collection, please leave particularly valuable pieces at home. We do not want you to lose your valuables!

- Requirements List and Free Pamphlet Download: [Coin Collecting Merit Badge | Scouting America](#)

Cybersecurity

Sean Massey (sean.massey@thevirtualhorizon.com)

- Prerequisites:
 - Requirements:
 - 1a
 - 4e(1) - read this article and be ready to discuss: <https://university-communications.upenn.edu/data-incident>
 - 4f - watch the following video before creating a list: <https://youtu.be/70gFQXARYzA?si=wwC4SEU3IfYWuVgC>
 - 5c(8) - read the following articles and write up 5 best practices: <https://www.cisa.gov/news-events/news/home-network-security>, https://media.defense.gov/2023/Feb/22/2003165170/-1/-1/0/CSI_BEST_PRACTICES_FOR_SECURING_YOUR_HOME_NETWORK.PDF
 - 6a (review the following websites and write up 3 situations/examples: <https://www.khanacademy.org/computing/computers-and-internet/xcae6f4a7ff015e7d:online-data-security/xcae6f4a7ff015e7d:data-encryption-technique>, <https://youtu.be/ZghMPWGXexs?si=phsRddmgMqpOOC4T>)
 - 7
 - 8a
 - Please bring a laptop, chromebook, or some form of smart device for Requirement 5.
- Requirements List and Free Pamphlet Download: [Cybersecurity Merit Badge | Scouting America](#)

Digital Technology

Sean Massey (sean.massey@thevirtualhorizon.com)

- Prerequisites:
 - Requirement 1
 - View the Personal Safety Awareness ["Digital Safety" video](#) (with your parent or guardian's permission).
 - Requirement 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:
 - 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.
 - b. Using a word processor, write a draft letter to the parents of your troop's Scouts, inviting them to a troop event.
 - 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.
 - e. Using a digital device, take a picture of a troop activity. Send or transfer this image to a device where the picture can be shared with your counselor.

- f. Make a digital recording of your voice, transfer the file to a different device, and have your counselor play back the recording.
- Requirements List and Free Pamphlet Download: [Digital Technology Merit Badge | Scouting America](#)

Disabilities Awareness

Jill Hiles (jill.hiles11@gmail.com)

- Prerequisites: Requirement 2 and 7
- Requirements List and Free Pamphlet Download: [Disabilities Awareness Merit Badge | Scouting America](#)

Electricity

Nicholas Keller (nkelr0424@twc.com)

- Prerequisites:
 - Requirements 2, 8, 9, and 11
 - Bring a printed copy of the workbook: [Microsoft Word - Electricity.docx](#)
- Requirements List and Free Pamphlet Download: [Electricity Merit Badge | Scouting America](#)

Electronics

Kevin Stanelle (kb9sne@yahoo.com)

- Prerequisites: Requirements 2 (a and b), 4 (a and c), and 6
- Requirements List and Free Pamphlet Download: [Electronics Merit Badge | Scouting America](#)

Energy

Clint Drescher (clint.drescher@comcast.net)

- Prerequisites: Requirements 1, 4, 5, and 8
- Requirements List and Free Pamphlet Download: [Energy Merit Badge | Scouting America](#)

Engineering

Brian Hubbard (brian.hubbard.bsa@gmail.com)

Thank you for your interest in learning more about the wonderful world of engineering. I am excited to share my knowledge with you. During this class, we will be interacting and discussing what we have learned in preparation for the class. Remember the Scout Motto "Be Prepared" to guide you in preparation for this class.

Class Preparation

All scouts must read the Engineering Merit Badge Pamphlet in preparation for the class. A lot of good information is included that will help you with your pre-requisites. Available at the scout shop, your local troop, or online.

Class Pre-Requisites

Requirement 1. Select a manufactured item in your home (such as a toy or an appliance), and under adult supervision, investigate how and why it works as it does. Find out what sort of engineering activities were needed to create it. Discuss with your counselor what you learned and how you got the information.

- Try to choose something smaller that you can bring with you to class.

Requirement 2. Select an engineering achievement that has had a major impact on society. Using resources such as the Internet (with your parent's permission), books, and magazines, find out about the engineers who made this engineering feat possible, the special obstacles they had to overcome, and how this achievement has influenced the world today.

- You will share with the class. Bring a photo to share with the class. I will have a laptop if you bring information on memory stick.

Requirement 3. Explain the work of six types of engineers. Pick two of the six and explain how their work is related. Bring you two types and share with the class.

- Be prepared to discuss with class.

Requirement 7. Explain what it means to be a registered Professional Engineer (PE). Name the types of engineering work for which registration is most important?

- Be prepared to discuss with class.

Requirement 9. Find out about three career opportunities in engineering. Pick one and research the education, training, and experience required for this profession. Discuss this with your counselor, and explain why this profession might interest you.

- Be prepared to discuss with class.

Note: As this class will be open discussion, Scouts that have NOT read the Merit Badge pamphlet or completed the pre-requisites may be excused from the Merit Badge class.

Requirements List and Free Pamphlet Download: [Engineering Merit Badge | Scouting America](#)

Entrepreneurship

Kent Pauli (krpauli70@gmail.com)

- Prerequisites:
 - Requirement 1
 - In your own words, define entrepreneurship.
 - Explain to your merit badge counselor how entrepreneurs impact the U.S.economy.
 - Requirement 2
 - Explain to your counselor why having good skills in the following areas is important for an entrepreneur: communication, planning, organization, problem solving, decision making, basic math, adaptability, technical and social skills, teamwork, and leadership.
 - Requirement 3
 - Identify and interview an individual who has started his or her own business.
 - Learn about this person's educational background, early work experiences, where the idea for the business came from, and what was involved in starting the business.
 - Find out how the entrepreneur raised the capital (money) to start the business, examples of successes and challenges faced, and how the business is currently doing (if applicable).
 - Discuss with your counselor what you have learned.

- Requirement 4
 - Think of as many ideas for a business as you can, and write them down.
 - From your list, select three ideas you believe represent the best opportunities.
 - Choose one of these and explain to your counselor why you selected it and why you feel it can be successful.
- Requirements List and Free Pamphlet Download: [Entrepreneurship Merit Badge | Scouting America](#)

First Aid

Stephanie Foth (froggyrose1003@yahoo.com)

- Prerequisites:
 - Requirements #2a and 2b
 - Bring Health Forms A and B to class
- Requirements List and Free Pamphlet Download: [First Aid Merit Badge | Scouting America](#)

Inventing

Brian Hubbard (brian.hubbard.bsa@gmail.com)

- Prerequisites:
 - 2a - Identify and interview with a buddy (and with your parent or guardian's permission and merit badge counselor's approval) an individual in your community who has invented a useful item. Report what you learned to your counselor
 - *If scout knows someone that they would like to interview, please do so.*
 - *If scout does not know someone, MB Counselor holds 13 patents and will be available for scouts in completing this requirement on course.*
 - 2b - Read about three inventors
 - Select one you find most interesting tell what you learned
 - 3c - Examine your scouting gear and find a patent number on a camp item you have used
 - With parental permission use the internet to find out more about that patent
 - 5 - Choose a commercially available product that you have used on an overnight camping trip with your troop
 - *Just choose an item.*
 - *We will complete balance on course with scouts idea.*
 - 6 - Think of an item you would like to invent that would solve a problem for your family, troop, chartered organization, community, or special interest group.
 - Talk to potential users
 - Write a proposal about the invention and how it would solve a problem
 - Proposal should include a sketch of invention
 - 7 - Build a working prototype of the item you invented for requirement 6*, then test and evaluate the invention. Among the aspects to consider in your evaluation are cost, usefulness, marketability, appearance, and function
 - Before you begin building the prototype, you must share your design and building plans with your counselor and have your counselor's approval
 - *Maintaining 2 Deep leadership scouts (or their leaders may forward) their notes from #6 and prototype plan with counselor prior to building prototype*

before course. Idea and prototype must be something scouts can safely build. Please budget time wisely.

- 8 - Do one of the following:
 - A - Participate in an invention, science, engineering, or robotics club or team that builds a useful item. Share your experience with your counselor
 - B - Visit a museum or exhibit dedicated to an inventor or invention, and create a presentation of your visit to share with a group such as your troop or patrol
- 9 - Discuss with your counselor the diverse skills, education, training, and experience it takes to be an inventor
 - Discuss how you can prepare yourself to be creative and inventive to solve problems at home, in school, and in your community.
 - Discuss three career fields that might utilize the skills of an inventor
- Requirements List and Free Pamphlet Download: [Inventing Merit Badge | Scouting America](#)

Moviemaking

Ross Headley (nutheadpro@gmail.com)

- Prerequisites:
 - Requirements 2a and 2b
 - Scouts should bring a device capable of recording video (i.e., a phone, a camera, etc.)
 - Please read the official Moviemaking merit badge pamphlet
- Requirements List and Free Pamphlet Download: [Moviemaking Merit Badge | Scouting America](#)

Music

Wendy Chopra (wendybird77@gmail.com)

- Prerequisites:
 - Requirement 1: Please be ready to play
 - Requirements 3 and 4
- Requirements List and Free Pamphlet Download: [Music Merit Badge | Scouting America](#)

Public Speaking

Brian Smits (bsmits101@yahoo.com)

- Prerequisites:
 - Practice your speech and be sure to stay within the time limits.
 - Requirements 1: Prepare a 3-5 minute introduction of yourself.
 - Requirement 2: Prepare a 3-5 minute talk of your choice that incorporates body language and visual aids. If you want to prepare a slide show, email it to the counselor before the event bsmits101@yahoo.com
 - Requirement 4: Select a topic of interest to your audience (STEM or Scout related, but it must be a different topic than what was done for requirement 2. Collect and organize the information into an outline. Bring the outline to the class for the counselor to review). Deliver the speech in a conversational way during the class.
 - Note cards can be used for speeches, but scouts should try to practice all speeches so they can make consistent eye contact with the audience and not just read a speech.

- Requirements List and Free Pamphlet Download: [Public Speaking Merit Badge | Scouting America](#)

Radio

Mike Moegenburg (mikemoegenburg@yahoo.com)

- Prerequisites: Requirements 3 and 8
- Requirements List and Free Pamphlet Download: [Radio Merit Badge | Scouting America](#)

Scholarship

Tricia Walheim (twalheim@berlin.k12.us)

- Prerequisites:
 - Requirement 1: Do one of the following: Show that your school grades have been an average of B (80%) or higher for one term or semester. If your school doesn't use grades and only uses standards-based grading, scores must indicate meeting or exceeding standard). The most recent official semester report card must be shown. OR Show that for one term or semester you have improved your grades over the previous period. Most recent report cards must be shown.
 - Requirement 3: Get a note from the principal of your school (or another school official named by the principal) that states that in the past year your behavior, leadership, and service have been satisfactory. If you are home schooled or your school environment does not include a principal, you may obtain a note from your counterpart such as your parent.
- Requirements List and Free Pamphlet Download: [Scholarship Merit Badge | Scouting America](#)

Scouting Heritage

Dale Opgenorth (opgenorthdale@gmail.com)

- Prerequisites: Requirements 5, 6, and 8
- Requirements List and Free Pamphlet Download: [Scouting Heritage Merit Badge](#)

Space Exploration

Kenny Bergschultz (kenny@bergschultz.com)

- Prerequisites:
 - Download the FREE current merit badge pamphlet and view merit badge resources at: [Space Exploration Merit Badge | Scouting America](#)
 - Complete Requirements 2, 5 (a, b, and c), 6 (a and b), 7 (a, b, c, and d) and 8 prior to the event.
 - Please note the merit badge requirements have minor changes in 2025 revision Requirement 8 to ONE career. Please still use the requested workbook noted below as a guide for merit badge and prerequisite completion.
 - Scouts must be First Class rank or higher.
 - Each Scout will be provided a model rocket kit specifically assembled and designed for this event. Please follow assembly directions closely. No other rocket kits will be allowed or launched. Kits will be made available upon event registration closure. A fully assembled rocket is to be brought to the event. Classroom time and schedule variability will not allow for rocket kit assembly.
 - Space Exploration MB will be launching the rockets twice as required unless winds start to exceed 20 mph as measured in the parking lot area at time of launch. Scouts must come prepared for the event weather in which we will be outside for probably 90 minutes, if you are not prepared you will not be launching

and will not complete the merit badge during the session. Safety and preparedness are key for this merit badge in all aspects.

- As a reminder in the prerequisites, they should be thoroughly completed and represent the work requested. In other words, stick figures and a few drawn lines do not constitute a site plan and research items should be fully completed and thought out (just like schoolwork assignments). Each participant will be sitting with an adult to review their individual prerequisites and should be capable of explaining the ideas, concepts, and research.
- Requirements List and Free Pamphlet Download: [Space Exploration Merit Badge | Scouting America](#)
- Workbook: <http://www.usscouts.org/mb/worksheets/Space-Exploration.pdf>

Sustainability

TBD

- Prerequisites:
- Requirements List and Free Pamphlet Download: [Sustainability Merit Badge | Scouting America](#)

Textile

Jill Hiles (jill.hiles11@gmail.com)

- Prerequisites:
 - Read through the Textile Merit Badge Pamphlet
 - Requirements 4 and 6
- Requirements List and Free Pamphlet Download: [Textile Merit Badge | Scouting America](#)

Truck Transportation

Bob Pankratz (pankrrob@gmail.com)

- Prerequisites: None
- Requirements and Free Pamphlet Download: [Truck Transportation Merit Badge | Scouting America](#)