

2025 STEM in Scouting - Scouts BSA

25SS2

Archaeology (2021 version)



Archaeologists are detectives who study how people lived in the past. They figure out what happened, when, how, and why. Using the clues that people left behind, they try to understand how and why human culture has changed through time.

Linked Requirements: Archaeology

Notes and Prerequisites: Prerequisites: 4, 7, 8, 9, 10a or 10b, 11

Added to catalog: 07-31-2025 3 periods

25SS1

Architecture (2015 version)



Architecture is not just the special buildings like cathedrals, museums, or sports stadiums we read about or see on television; it is as normal as the homes, places of worship, schools, and shopping malls where we live, worship, work, learn, and play every day. However, architecture is more than just common shelter; building has always satisfied the human need to create something of meaning. Even the simplest form of architecture is a work of art that requires thought and planning.

Linked Requirements: Architecture

Added to catalog: 07-31-2025 3 periods

25SS3

Aviation (2025 version)



For most of history, people have dreamed of flying, imagining how it would feel to soar through the sky like an eagle or hover in midair like a hummingbird, to float on unseen currents, free of Earth's constant tug, able to travel great distances and to rise above any obstacle. Today, through aviation, we can not only join the birds but also fly farther, faster, and higher than they ever could.

Added to catalog: 07-31-2025 3 periods

25SS4

Chemistry (2025 version)

Linked Requirements: Aviation



Chemistry explores how substances react with each other, how they change, how certain forces connect molecules, and how molecules are made are all parts of chemistry. Stretch your imagination to envision molecules that cannot be seen - but can be proven to exist - and you become a chemist.

Linked Requirements: Chemistry

Notes and Prerequisites: Prerequisites: 5, 6a, 6b, 6c, 6d, 7

Added to catalog: 07-31-2025 3 periods

25SS5

Digital Technology (2023 version)



Technology has come a long way since Computers merit badge was first introduced in 1967. This badge will teach Scouts about technology in the digital age.

Linked Requirements: Digital Technology

Notes and Prerequisites: Prerequisites: 4b, 6, 8, 9

Added to catalog: 07-31-2025 3 periods

25SS6

Drafting (2025 version)



Drafting is a highly refined form of drawing used to communicate ideas to engineers, architects, and craftspeople. In earning this badge, Scouts learn the importance of accuracy and simplicity in developing a drawing that shows precise details in a simple format

Linked Requirements: Drafting

Notes and Prerequisites: Prerequisites: 7, 8





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25SS7

Electricity (2025 version)



Electricity is a powerful and fascinating force of nature. As early as 600 b.c., observers of the physical world suspected that electricity existed but did not have a name for it. In fact, real progress in unraveling the mystery of electricity has come only within the last 250 years.

Linked Requirements: Electricity

Notes and Prerequisites: Prerequisites: 7, 8

Added to catalog: 07-31-2025 3 periods

25SS8

Electronics (2025 version)



Electronics is the science that controls the behavior of electrons so that some type of useful function is performed. Today, electronics is a fast-changing and exciting field.

Linked Requirements: Electronics

Notes and Prerequisites: Prerequisites: 2a, 2b, 6

Added to catalog: 07-31-2025 3 periods

25SS9

Energy (2025 version)



Saving, producing, and using energy wisely will be critical to America's future. If we are to leave future generations with a world in which they can live as well or better than we have, SCouts and other potential leaders of tomorrow must begin the hard work of understanding energy and the vital role it will play in the future.

Linked Requirements: Energy

Notes and Prerequisites: Prerequisites: 1a, 5, 6

Added to catalog: 07-31-2025 3 periods

25SS10

Engineering (2024 version)



Engineers use both science and technology to turn ideas into reality, devising all sorts of things, ranging from a tiny, low-cost battery for your cell phone to a gigantic dam across the mighty Yangtze River in China.

Linked Requirements: Engineering

Notes and Prerequisites: Prerequisites: 1, 2, 5a or 5b, 9

Added to catalog: 07-31-2025
3 periods

25SS11

Inventing (2023 version)



Inventing involves finding technological solutions to real-world problems. Inventors understand the importance of inventing to society because they creatively think of ways to improve the lives of others. Explore the world of inventing through this new merit badge, and discover your inner inventiveness.

Linked Requirements: Inventing

Notes and Prerequisites: Prerequisites: 2b, 5, 6, 7, 9

Added to catalog: 07-31-2025 3 periods

25SS12

Nuclear Science (2024 version)



Nuclear science gives us a simple explanation of the natural world. The ultimate goal of nuclear science is to find out if there is one fundamental rule that explains how matter and forces interact. Earning the Nuclear Science merit badge is a chance for Scouts to learn about this exciting field at the cutting edge of science today.

Linked Requirements: Nuclear Science





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25SS13

Oceanography (2013 version)



The oceans cover more than 70 percent of our planet and are the dominant feature of Earth. Wherever you live, the oceans influence the weather, the soil, the air, and the geography of your community. To study the oceans is to study Earth itself.

Linked Requirements: Oceanography Notes and Prerequisites: Prerequisites: 7, 8

Added to catalog: 07-31-2025 3 periods

25SS14

Programming (2025 version)



Programming Merit Badge: Go behind the screen to find out how computers process information and make digital devices useful and fun. The merit badge counselor will email you in advance of the class sample programming languages for requirement five (5) to download onto your laptop for your work in this class. You must bring your laptop with the advance sample program language requirement already downloaded on your laptop for this class.

Added to catalog: 07-31-2025 3 periods

Linked Requirements: Programming

Notes and Prerequisites: Prerequisites: 1a, 5. YOU MUST BRING YOUR OWN PERSONAL

LAPTOP.

25SS15

Robotics (2011 version)



Earning the Robotics merit badge requires a Scout to understand how robots move (actuators), sense the environment (sensors), and understand what to do (programming); he should demonstrate robot design in building a robot. You should help ensure that the Scout has sufficiently explored the field of robotics to understand what it is about, and to discover whether this may be a field of interest for him as a career.

Linked Requirements: Robotics

Notes and Prerequisites: Prerequisites: 6b, 7

Added to catalog: 07-31-2025 3 periods

25SS16

Space Exploration (2020 version)



Space is mysterious. We explore space for many reasons, not least because we don't know what is out there, it is vast, and humans are full of curiosity. Each time we send explorers into space, we learn something we didn't know before. We discover a little more of what is there.

Linked Requirements: Space Exploration

Notes and Prerequisites: Prerequisites: 2, 5b, 5c, 7, 8

Added to catalog: 07-31-2025 3 periods

25SS17

Surveying (2024 version)



While earning this merit badge, Scouts will discover how land is measured and how it is described so that others can know where boundary lines are. They will have a chance to use some fine measuring instruments, apply advanced mathematics, operate computing equipment, and create a survey map.

Linked Requirements: Surveying
Notes and Prerequisites: Prerequisites: 6





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25SS18

Weather (2018 version)



Meteorology is the study of Earth's atmosphere and its weather and the ways in which temperature, wind, and moisture act together in the environment. In addition to learning how everyday weather is predicted, Scouts can learn about extreme weather such as thunderstorms, tornadoes, and hurricanes, and how to stay safe.

Linked Requirements: Weather

Notes and Prerequisites: Prerequisites: 8a, 9a or 9b

