Pre-K entering grade K in Fall of 2026 qualify to complete Daisy requirements

Each box is worth 2 points, but hidden bonus boxes are worth more! Check off which ones you did and bring your list to any GSHNJ Council Shop to pick up your free 2026 Summer STEM Challenge patch, while supplies last!

Daisy - 10 pts	Cadette - 25 pts
Brownie - 15 pts	Senior - 30 pts
Junior - 20 pts	Ambassador - 30 pts

Need help? Find us at programs@gshnj.org

***Also completes one step for specified GS level badges**

Engineering & Design

Automotive Engineering
- ☐ DBJ* Learn about the parts of a car and make a 3D model of your dream car with clay
- ☐ D* Design a vehicle for an animal shelter
- ☐ B* Design a vehicle built for extreme conditions, like floods or blizzards
- ☐ BJ* Learn about simple machines
- ☐ J* Design a vehicle that can move something heavy
- ☐ DBJ* Create an assembly line to assemble vehicles – LEGO works great for this!

Craft and Tinker
- ☐ DBJ* Learn about tools used in crafting and try one you've never used before
- ☐ DB* Solve a problem with a craft – invent something new~
- ☐ B* Craft a toy or tinker with an existing one
- ☐ J* Upcycle something you already own

Mechanical Engineering
- ☐ D* Design your own board game
- ☐ D* Design your own roller coaster
- ☐ D* Design your own model car
- ☐ B* Design your own fling flyer
- ☐ B* Design your own leap bot
- ☐ B* Design your own race car
- ☐ J*Design your own balloon car
- ☐ J* Design your own crane
- ☐ J* Design your own paddle boat

5 points!

- ☐ Learn about robotics teams in your area
- ☐ Watch videos of robotics competitions in your area
- ☐ Look at robots in action and keep a record of where you find them

Robotics
- ☐ D* Find out what robots can do
- ☐ D* Learn about the parts of a robot
- ☐ D* Make a prototype of a robot **5 points!**
- ☐ BJCSA* Code a robot by completing an Hour of Code
- ☐ BJCSA* Learn about the parts of a robot and make a plan for your robot's skills
- ☐ BJCSA* Make a prototype of your robot and present it to your family and friends or post it online with adult permission **10 points!**

2026 Summer STEM Challenge is made possible through a state-funded grant and delivered in partnership with Girl Scouts councils of New Jersey.

Environmental Sciences

- ☐ Plant a pollinator garden
- ☐ Teach a group of younger Girl Scouts how to protect animal habitats
- ☐ Pick up trash in your community park
- ☐ Go on a hike and keep a field journal of the animals and insects you see

Bugs
- ☐ D* Find animal tracks outside D* (Animal Observer Badge)
- ☐ B* Learn about the life cycle of a butterfly and make an egg carton caterpillar
- ☐ B* Observe a spider in its web for 1 week and record the changes

Animal Habitats
- ☐ J* Observe a domestic animal and a wild animal and note the differences **5 points!**
- ☐ J* Design a habitat for an imaginary animal and write a care list **5 points!**
- ☐ J* Choose an endangered habitat to research: arctic circle, gulf coast, Amazon rainforest

Animal Helper
- ☐ C* Research how animals have helped at key points in history and present to your friends or troop
- ☐ C* Read stories about heroic animals **5 points!**
- ☐ C* Interview five different pet owners to learn about how their pets make them feel

Sky
- ☐ S* Learn about light pollution and research if your community or state has laws regulating industrial lighting **5 points!**
- ☐ S* Learn about air pollution and make recommendations to local authorities on how your community can make changes
- ☐ S* Track the weather for one week and record if the forecasts on three different websites are accurate or not

Water
- ☐ A* Research water rescue & take a course for beginners **10 pts!**
- ☐ A* Become a composer and make your own music from the sounds of water
- ☐ A* Investigate endangered marine life and make an action plan to present to local authorities **15 points!**

Shapes in Nature
- ☐ D* Make a nature mobile
- ☐ B* Make a symmetrical spiderweb using sticks
- ☐ J* Make radial art with birdseed
- ☐ J* Search for fractals in nature
- ☐ J* Find the Fibonacci sequence in food, animals, or flowers
- ☐ D* Trace and compare your shadow outdoors with a friend
- ☐ B* Learn how to measure temperature with crickets

Numbers in Nature
- ☐ B* Plant an herb or flower garden
- ☐ J* Learn how to make a sundial and tell time with it
- ☐ J* Build a barometer to measure air pressure
- ☐ J* Find a tree's height using shadows
- ☐ D* Keep a tally while bird-watching
- ☐ B* Calculate the age of a tree

Design in Nature
- ☐ B* Build a bird feeder and research what birds in your area eat
- ☐ J* Calculate your pace
- ☐ J* Calculate elevation changes on a topographic map
- ☐ J* Make a trail mix that will fuel your body
- ☐ Become a citizen scientist and collect data in your community
- ☐ Make space-themed SWAPS

Space Science Series
- ☐ Identify a constellation
- ☐ View a planet from a telescope
- ☐ Research Sally Ride and Victoria Garcia
- ☐ Sleep under the stars
- ☐ D* Make a pinhole projector to view the sun
- ☐ B* Draw and label a picture of the planets
- ☐ B* Model the phases of the moon with Oreos
- ☐ J* Make models of the planets with salt dough
- ☐ J* Learn about Mars and design the next Mars rover
- ☐ BJ* Attend the July iFly program to learn the physics of flight! **10 points!**
- ☐ C* Use the sun and water to make a rainbow happen
- ☐ C* Make a print with the sun
- ☐ S* Learn about how your eyes react to light
- ☐ S* Practice astrophotography
- ☐ A* Research 8 women with NASA careers

Career Exploration

- ☐ Attend a Girl Scout STEM program
- ☐ Visit a science museum
- ☐ Find and investigate a tide pool
- ☐ Visit a zoo, aviary, or butterfly sanctuary
- ☐ Visit a planetarium
- ☐ Build your resume and highlight your STEM-related skills
- ☐ Visit a science building on a university campus
- ☐ Interview a college student
- ☐ Make a list or draw a picture of your goals
- ☐ Take a step towards achieving your goals
- ☐ Record a video message to send to future you
- ☐ Draw a picture or write down where you think you will be in 10 years and 20 years
- ☐ Interview an adult Girl Scout with a career or interest in STEM

Career Exploration Series

- ☐ D* Choose a STEM career to learn about
- ☐ B* Make a list of your superhero skills
- ☐ BJ* Learn about the day in a life of a STEM career of your choice
- ☐ J* Make a list of all of your interests and research how a career in STEM could match them
- ☐ C* Research the skills you would need for a STEM career of your choice
- ☐ CS* Explore how you can make a difference in a STEM career
- ☐ S* Research a career you have never heard of before
- ☐ S* Write a letter to future you
- ☐ A* Learn about the history of women in STEM
- ☐ A* Interview a woman in STEM who has a career that interests you
- ☐ A* Learn a new STEM skill that can help you with your future

Computers & Technology

Coding Basics

- ☐ DBJ* Research Ada Lovelace , Grace Hopper, Margaret Hamilton
- ☐ DB* Follow a recipe to make your favorite dish and learn about how computers follow user directions with an algorithm
- ☐ BJ* Learn about loops in algorithms and write an algorithm for your nightly routine
- ☐ J* Learn about the sequence of directions in an algorithm by writing a to do list in the order it needs to be done
- ☐ J* Learn about conditionals and write your own IF/ELSE statements to choose what to wear when the temperature change **10 points!**
- ☐ C* Write a pseudocode to create a meme
- ☐ S* Use Boolean logic to create a quiz show
- ☐ A* Choreograph a dance routine in coding language **15 points!**

Coding Digital Game Design

- ☐ DBJ* Draw a maze and challenge a friend to solve it
- ☐ B* Discover how game design can be used "for good" by playing Freerice
- ☐ J* Discover how game design can be used to teach people new skills by playing Coolmathgames
- ☐ C* Design a digital avatar using a computer application
- ☐ C* Watch the tutorials then develop a game scenario in Scratch
- ☐ SA* Create a customizable character for a video game
- ☐ SA* Watch the tutorials then develop a game scenario with a decision tree in Scratch **10 points!**

Coding App Development

- ☐ DBJ* Make a plan to create your very own app and present your idea to your friends or family **5 points!**
- ☐ J* Talk to your community to see what types of apps they use and discover what types of apps they want that don't exist yet
- ☐ C* Develop a prototype for a habit tracking app
- ☐ S* Develop a prototype for a social app to address an issue in your community
- ☐ A* Choose a topic to collect data from your community on, then prototype an app to support the needs as shown by the data

- ☐ Create a secret code for a friend to decipher
- ☐ Change your passwords to something more secure **5 points!**
- ☐ Mentor younger Girl Scouts or give a classroom presentation on how to stay safe online
- ☐ Make an online safety rules poster

Cybersecurity Basics

- ☐ D* Learn how to protect a computer and make your own unique password
- ☐ B* Conduct an egg drop test to find out how to create layers of security
- ☐ J* Find out what malware is and how to avoid downloading a virus
- ☐ C* Learn about two-factor authentication and set it up on any online accounts you have
- ☐ S* Design a Rube Goldberg machine and investigate why cybersecurity specialists use minimization to reduce attempted attacks **20 points!**
- ☐ A* Hide a message in plain sight and learn about steganography

- ☐ Create a Bring-Your-Own-Device workshop to teach the community how to make their tech more secure
- ☐ Give a presentation on how devices can accidentally record conversations
- ☐ Visit a senior center and help seniors create more secure passwords **10 points!**
- ☐ Partner with a cybersecurity professional to create a video on the ten principles of cybersecurity

Cybersecurity Safeguards

- ☐ DBJC* Learn about what information should stay private online
- ☐ B* Make prints of your fingerprint on paper and identify your print type
- ☐ BJ* Write down 3 things you can share online, and 3 things you shouldn't
- ☐ BJ* Figure out who you can trust online
- ☐ J* Create a username that is safe to share online
- ☐ J* Create a secure password and make sure a friend can't guess it
- ☐ J* Find out how information posts online lasts forever
- ☐ C* Read a user agreement and learn why it is important
- ☐ S* Research Faraday cages/bags and how they can be used to protect electronics
- ☐ A* Outsmart the online marketers by removing permissions and asking the app not to track **10 points!**
- ☐ A* Launch your own cyberhealth campaign to educate others on cybersecurity **20 points!**

- ☐ Interview local officials about cybersecurity policies **5 points!**
- ☐ Make a video on how to spot phishing emails
- ☐ Make a poster about identity theft and hang it in a public space

Cybersecurity Investigator

- ☐ D* Test your powers of observation – name something you can see, hear, feel, and smell
- ☐ B* Learn how to tell an AI image from a real one
- ☐ BJ* Decipher a code like a computer
- ☐ J* Check your household devices to make sure their software is up to date and research why it is important **5 points!**
- ☐ JC* Learn about identity theft and how to protect yourself from it
- ☐ C* Learn how to identify a phishing email
- ☐ S* Investigate the difference between HTTP and HTTPS
- ☐ SA* Roleplay how to handle a cyber crisis
- ☐ A* Determine how a cyber-attack can affect a city

- ☐ Use a Digital Data tracker to keep track of your digital footprint for a week **5 points!**

Digital Leadership

- ☐ D* Use technology for good – make a video to share what you love about Girl Scouts! **5 points!**
- ☐ B* Create a Girl Scout mural with your friends or troop
- ☐ J* Film a video to raise awareness about a topic you care about
- ☐ C* Create an online petition for a cause you care about
- ☐ S* Create a card game to teach people about safe online interactions
- ☐ A* Teach younger Girl Scouts how to be digital leaders through a skit or video

***Also completes one step for particular GS level badges**