

### AWARD/BADGE

#### **DESCRIPTION**



**Ambassador STEM Career Exploration** 

Ambassador (Grades 11-12) STEM Find out how a career with STEM will help you shape the world for the better.

- 1. Explore how you want to make a difference
- 2. Discover your career possibilities
- 3. Learn about the day-to-day
- 4. Find your career pathway
- 5. Take the next step

When you've earned this badge, you'll have explored how you want to change the world and understand how a career in STEM can help you make a difference.

#### **GET THIS BADGE**



Coding for Good 1: Coding Basics

Ambassador (Grades 11-12) STEM Explore the power of music and coding to spread a positive message and write code to share your own performance routine with others.

- 1. Learn about functions through song lyrics
- 2. Learn about loops through song patterns
- 3. Write an algorithm duet
- 4. Code a performance routine
- 5. Share your coded routine with others

When you've earned this badge, you'll know how to write shareable code to spread a message or build community.

#### **GET THIS BADGE**



Coding for Good 2: Digital Game Design

Ambassador (Grades 11-12) STEM Find out about narrative video game design and explore how games can make a positive change in the world.

- 1. Brainstorm "game for good" scenarios
- 2. Create a G.I.R.L. avatar for your game
- 3. Learn about decision trees in game design
- 4. Design your game
- 5. Playtest and iterate your game

When you've earned this badge, you'll know how video games use conditionals to give players choices and how video games can help players understand the world.



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# Coding for Good 3: App Development

Ambassador (Grades 11-12) STEM Collect and visualize data to design a prototype for an app that helps leaders change the world.

- 1. Learn to code data objects
- 2. Create a data visualization
- 3. Design a data collection plan
- 4. Analyze your leadership data
- 5. Develop an app based on your data

When you've earned this badge, you'll know how to create data objects and how to develop apps that will help leaders make a positive difference in their communities.

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## Cybersecurity 1: Basics

Ambassador (Grades 11-12) STEM Explore how hackers operate and how hacking can be used for the purposes of corporate and national security.

- 1. Learn about different kinds of hackers
- 2. Hide a message in plain sight
- 3. Debate the ethics of hacking
- 4. Learn cyberwarfare strategies
- 5. Explore cyber careers

When you've earned this badge, you'll know about steganography, cyberwarfare, and a variety of different careers in cybersecurity.

#### **GET THIS BADGE**



## Cybersecurity 2: Safeguards

Ambassador (Grades 11-12) STEM Find out how to protect your personal data and digital footprint with healthy online habits.

- 1. Guard your movements
- 2. Outsmart the online marketers
- 3. Plan your digital future
- 4. Take the rights steps to secure your data
- 5. Make cyber hygiene go viral

When you've earned this badge, you'll know how to cultivate healthy online habits.



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## Cybersecurity 3: Investigator

Ambassador (Grades 11-12) STEM Investigate and respond when a fictional city has been affected by a cyberattack.

- 1. Determine how the attack has affected the city
- 2. Identify suspects
- 3. Decide whether to pay the ransom
- 4. Figure out how the attack happened
- 5. Learn how to prevent future attacks

When you've earned this badge, you'll know how to analyze hidden messages and security log files, and make decisions about how to best allocate cybersecurity resources.

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### **Digital Leadership**

Ambassador (Grades 11-12) STEM Explore how you can use technology to build community and lead others.

- 1. Explore your digital landscape
- 2. Examine digital bias
- 3. Advocate for your community
- 4. Create content for change
- 5. Evaluate and expand your impact

When you've earned this badge, you will know how to use technology to lead and inspire. You'll also know how to make the internet and world a better place for yourself and others.

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#### **Journey: Justice**

Ambassador (Grades 11-12) STEM Journey In this Journey, you will:

- 1. Identify global environmental issues and create your own vision for change.
- 2. Plan a Take Action project to address food and land-use issues, improve food delivery systems, fight hunger in developing nations, or rediscover healthy eating traditions.
- 3. Earn the Sage Award. If you're a Girl Scout volunteer, go to Volunteer Toolkit for complete meeting plans and activity instructions.

Learn more about how to earn your Take Action Award - and help your community - with the **Girl Scout Take Action Guide**. Then use your leadership skills to earn your Gold Award, the highest award for Girl Scout Seniors and Ambassadors!

**Get This Journey** 



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In this Journey, you will:

- 1. Find out how citizen scientists make observations, collect data, and help scientists conduct scientific research.

### Journey: Think Like a Citizen Scientist

Ambassador (Grades 11-12) STEM Journey If you're a Girl Scout volunteer, go to Volunteer Toolkit for complete meeting plans and activity instructions.

Learn more about how to earn your Take Action Award - and help your community - with the Girl Scout Take Action Guide. Then use your leadership skills to earn your Gold Award!



In this Journey, you will:

- 1. Find out how programmers use computational thinking to solve problems.
- 2. Do 3 computational thinking activities: build a message-sending machine out of everyday objects to learn about binary, develop an algorithm to find the smallest playing card in a row of cards, and design an app that solves a problem for others to explore user-centered design. **More Details →**

### Journey: Think Like a Programmer

Ambassador (Grades 11-12) STEM Journey Learn more about how to earn your Take Action Award - and help your community - with the **Girl Scout Take Action Guide**. Then use your leadership skills to earn your Gold Award, the highest award for Girl Scout Seniors and Ambassadors!



In this Journey, you will:

- 1. Find out how engineers use design thinking to solve problems.
- 2. Do 3 design thinking activities: design and build prototypes of an animal enrichment product, a zip line course, and mobility equipment. More Details →

## Journey: Think Like an Engineer

Ambassador (Grades 11-12) STEM Journey Learn more about how to earn your Take Action Award - and help your community - with the **Girl Scout Take Action Guide**. Then use your leadership skills to earn your Gold Award, the highest award for Girl Scout Seniors and Ambassadors!



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## Photographer

Ambassador (Grades 11-12)
STEM
Art
Life Skills

Hone your artistic skills and find out how to use different types of cameras to present the world through your eyes.

- 1. Explore the power of photography
- 2. Focus on composition--shoot five landscapes
- 3. Focus on light--shoot five portraits or still lifes
- 4. Focus on motion--shoot five action shots
- 5. Tell a story with photography

When you've earned this badge, you'll know how to capture your vision of the world in photographs.

#### **GET THIS BADGE**



### Robotics 1: Designing Robots

Ambassador (Grades 11-12) STEM Explore the Design Thinking Process as you build a model of a social robot that can make life better for others. Decide on a challenge, brainstorm solutions, plan, build a prototype, and test it to see how well it meets the needs it is designed to address.

- 1. Pick a challenge
- 2. Explore possible solutions
- 3. Plan your prototype
- 4. Build a prototype
- 5. Get feedback on your robot

When you've earned this badge, you'll know how to design a robot and build a prototype.

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## Robotics 2: Programming Robots

Ambassador (Grades 11-12) STFM To help you understand how robots work, learn about the parts that make up a robot. Get started by making a simple motorized robot to see how robot parts work together. Then practice coding robots, using important programming concepts, like functions and loops.

- 1. Learn about robots
- 2. Build a robot model: motorized robot
- 3. Explore the way robotics systems work together
- 4. Learn about programming
- 5. Write a program for a robot

When you've earned this badge, you'll understand how robots work and how to control them.



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### Robotics 3: Showcasing Robots

Ambassador (Grades 11-12) STEM After engineers build their robots, they share their work with others through challenges, competitions, or marketing campaigns. Now that you've built your robot, share your design with others and explore your future with robotics.

- 1. Learn about robotics events
- 2. Hold a mini robotics event
- 3. Give a presentation about your robotics activities
- 4. Find out about robotics career opportunities
- 5. See robot makers and robots in action

When you've earned this badge, you'll know how to share your robot designs with the world.

#### **GET THIS BADGE**



### Space Science Master

Ambassador (Grades 11-12) STEM Explore, observe, design, and communicate your space science discoveries-just like scientists and engineers.

- 1. Discover worlds beyond Earth
- 2. Dive into NASA science
- 3. Explore your interests
- 4. Dig deeper
- 5. Share what you've learned

When you've earned this badge, you'll understand more about space science and how you can be a part of NASA now and in the future.

#### **GET THIS BADGE**



#### Water

Ambassador (Grades 11-12) STEM Outdoors Find out more about water and reflect on the role water plays in your life and our world.

- 1. Have fun reflecting on your relationship with water
- 2. Celebrate water art-and create your own
- 3. Find out about water issues
- 4. Explore water solutions
- 5. Educate and inspire

When you've earned this badge, you'll have dived deep into water-from its scientific origins to the joy of splashing around.