

AMBASSADOR

Cybersecurity Badges

NOTES TO VOLUNTEERS

In the Cybersecurity badge series, Ambassadors learn how to keep computers and information safe from hackers.

In Cybersecurity Basics, girls explore how hackers operate and how hacking can be used for the purposes of corporate and national security. They explore steganography, cyberwarfare, and a variety of different careers in cybersecurity.

In Cybersecurity Safeguards, girls learn how to protect their personal data and digital footprint with healthy online habits. They explore how their physical and digital habits intersect and how to cultivate healthy online habits throughout their life.

In Cybersecurity Investigator, girls investigate a fictional cybercrime. They learn about cryptocurrency and ransomware, analyze hidden messages and security log files, and make decisions about how to best allocate cybersecurity resources.

About the Badges:

Follow the Program Progression: The Cybersecurity badges were designed to be earned in a specific order. The badge progression is:

- 1 Cybersecurity Basics
- 2 Cybersecurity Safeguards
- 3 Cybersecurity Investigator

Enhance the Experience: The cybersecurity badges were designed to be “unplugged,” so you don’t need to have computers for girls to earn these badges. However, if you have access to computers, tablets, or smartphones and the Internet, feel free to have girls use them to complete the badge steps where appropriate. In some activities, there may be video resources where access to a computer and Internet will be helpful.

Girl Leaders: At this point, your girls might be ready to lead the meetings, and that’s fantastic! To help, you might decide as a troop on girl leaders for each of the badge meetings. Share the meeting plan and meeting aids with your girl leaders with plenty of time before the meeting to give time to prepare to lead. If they have any ideas or ways to improve the activities for their Girl Scout sisters, give them the opportunity to try it out!



Use the Talking Points (But Make Them Your Own): In each meeting, you’ll find suggested talking points under the heading “Things to Know.” Some volunteers, especially new ones, find it helpful to follow the script. Others use the talking points as a guide and deliver the information in their own words. Either way is just fine.

Be Prepared (It's What Girl Scouts Do!): Each meeting includes a “Prepare Ahead” section that includes a materials list and what kind of set-up is required. Read it in advance so you have enough time to gather supplies and enlist help, if needed.

Use Girl Scouts' Three Processes: Girl-led, learning by doing, cooperative learning: These three processes are the key to making sure Ambassadors have fun in Girl Scouts and keep coming back.

“Learning by doing” and “cooperative learning” are built into this badge, thanks to the hands-on activities and tips. You can look for ways to keep the badges “girl-led”, whether it's helping to prepare or lead a meeting, having girls lead the discussion about the issues they'd like to work on for the Take Action project, or planning the final celebration. They'll help you create an experience where Ambassadors know they can make choices and have their voices heard.

Leave Time for the Closing Ceremony: If Ambassadors are having fun with an activity, you may be tempted to skip the Closing Ceremony so they can keep going, but the Closing Ceremony is absolutely key to their learning. Here's why:

When Ambassadors leave a meeting, they'll remember how much fun it was to do an activity, but they may not realize what its relationship to cybersecurity was, unless you tell them.

That's why the Closing Ceremony is so important. It's where you can connect the dots for Ambassadors by:

- *Pointing out how real-world safety rules are just as important to practice when they use computers and other devices.*
- *Letting them know that they have what it takes to continue exploring ways to keep safe in the cyber world.*

These simple messages can boost Ambassadors' confidence and interest in STEM—and end the meeting on an upbeat note!

Tell Your Troop Story: As a Girl Scout leader, you're designing experiences that Ambassadors will remember their whole lives. Try to capture those memories with photos or videos. Ambassadors love remembering all they did—and it's a great way for parents to see how Girl Scouting helps their Ambassadors!

And please do share your photos and videos with GSUSA by emailing them to STEM@girlscouts.org (with photo releases if at all possible!).

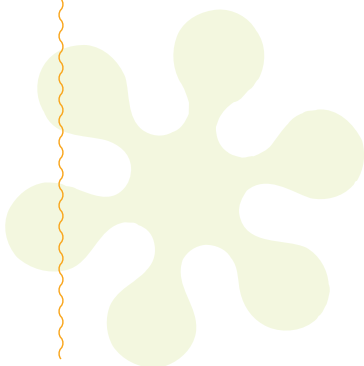
To Prepare for the Meetings:

Before each meeting, you'll find an Overview, notes to Prepare Ahead, and a Materials List, all specific to that meeting.

Go over new words Ambassadors can learn. In the Prepare Ahead section for each meeting, you'll see a list of words Ambassadors may or may not know and how to define them. You can find a full list of vocabulary for the badges in the **Ambassador Cybersecurity Badges – Glossary**.

Before each meeting, read through this guide and any meeting aids. This will help you become familiar with the flow of the meeting. As you prepare, it's important to understand the activity steps and Things to Know, but feel free to adapt the activities to fit your troop, meeting time allotment, and available materials.

Handouts specific to the meetings are listed in the Prepare Ahead section of each meeting.



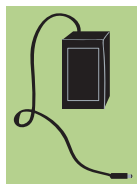
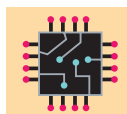
In addition, the following handouts are available in the Meeting Aids for every meeting:

- **Ambassador Cybersecurity Badges – Materials List:** *Each meeting has its own materials list. However, if you like to do all of your supply shopping at one time, use this handout. It includes the materials needed for all three Ambassador Cybersecurity badges.*
- **Ambassador Cybersecurity Badges – Glossary:** *This is a list of words introduced in the Ambassador Cybersecurity badges with definitions.*
- **Think, Pair, Share:** *These facilitation tips will help you ensure that every girl's voice is heard during brainstorming activities.*

Gather materials for the meeting.

Before each meeting, gather materials for the meeting's activities. If your meeting location doesn't have a flag, bring a small one that you can take turns holding or hang in the room.

Each meeting includes its own materials list. However, if you like to do all your supply shopping at one time, use the Ambassador Cybersecurity Badges – Materials List handout. It includes the materials needed for all of the badges.



Badge Series and Meeting Length

- This series of badges has been designed to fit into six 90 minute troop meetings.
- The times given for each activity may be different depending on how many girls are in your troop. Prior to each meeting, review the activities and time allotment to determine how much time your troop will need to complete the activities. You can adjust times for each activity as needed.
- Give girls 10- and 5-minute warnings before they need to wrap up the last activity so you'll have time for the Closing Ceremony.

Get Help from Your Family and Friends Network

Your Friends and Family Network can include:

- Girls' parents, aunts, uncles, older siblings, etc.
- Other volunteers who have offered to help with the meeting.

Ask your Network to help:

- Bring supplies or other materials for the meetings.

Award Connection

Girls earn three badges:

- Cybersecurity Basics
- Cybersecurity Safeguards
- Cybersecurity Investigator

Note to Volunteers: You can purchase the awards from the [Girl Scouts Shop](#) or from your council.



Cybersecurity

BADGE BREAKDOWN

CYBERSECURITY BASICS 1

- 1: As Everyone Arrives: Find a Hidden Message
- 2: Opening Ceremony: Jump Into Cybersecurity Basics
- 3: Learn About Different Kinds of Hackers
- 4: Hide a Message in Plain Sight
- 5: Debate the Ethics of Hacking
- 6: Closing Ceremony: Cybersecurity Basics Flash Chat

- Ambassadors learn how hackers operate.
- They role-play to learn about the white, gray, and black-hat hackers.
- They create steganographic messages.
- They debate the ethics of hacking.

CYBERSECURITY BASICS 2

- 1: As Everyone Arrives: Name That Hacker!
- 2: Opening Ceremony: A Future in Cybersecurity
- 3: Learn Cyberwarfare Strategies
- 4: Explore Cyber Careers
- 5: Closing Ceremony: Cybersecurity Basics Awards

- Ambassadors explore how hacking can be used for the purposes of corporate and national security.
- They simulate international cyberwarfare.
- They find out about different careers in cybersecurity.
- They earn their Cybersecurity Basics badge at the end of this meeting.

CYBERSECURITY SAFEGUARDS 1

- 1: As Everyone Arrives: Record Your Surroundings
- 2: Opening Ceremony: Jump Into Cybersecurity Safeguards
- 3: Guard Your Movements
- 4: Outsmart the Online Marketers
- 5: Plan Your Digital Future
- 6: Closing Ceremony: Cybersecurity Safeguards Flash Chat

- Ambassadors learn how to protect their personal data and digital footprint with healthy online habits.
 - They identify data vulnerabilities in their typical days.
 - They create fictional advertisements to learn about data collection and digital footprints.
 - They explore how their digital footprint can be used by hackers and future employers alike.
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CYBERSECURITY SAFEGUARDS 2

- 1: As Everyone Arrives: Sort Friends and Foes
- 2: Opening Ceremony: A Healthy Digital Future
- 3: Take the Right Steps to Secure Your Data
- 4: Make Cyber Hygiene Go Viral
- 5: Closing Ceremony: Cybersecurity Safeguards Awards

- Ambassadors reflect upon their own cyber hygiene and how they can spread cyber awareness to others.
 - They complete a “cybersecurity walk” to assess their personal digital habits.
 - They design a social marketing campaign that promotes a healthy cyber habit.
 - They earn their Cybersecurity Safeguards badge at the end of this meeting.
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CYBERSECURITY INVESTIGATOR 1

- 1: As Everyone Arrives: Learn How Bitcoin Works
- 2: Opening Ceremony: Jump Into Cybersecurity Investigator
- 3: Determine How the Hack Has Affected the City
- 4: Identify Suspects
- 5: Decide Whether to Pay the Ransom
- 6: Closing Ceremony: Cybersecurity Investigator Flash Chat

- Ambassadors begin to role-play a fictional cybercrime where a city has been affected by a cyberattack.
 - They assess the damages on different city departments after a ransomware attack.
 - They analyze both an encrypted and a steganographic message.
 - They debate the pros and cons of sending money to cybercriminals.
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CYBERSECURITY INVESTIGATOR 2

- 1: As Everyone Arrives: Tabletop Discussion
- 2: Opening Ceremony: Next Steps to Solve the cybercrime
- 3: Figure Out How the Attack Happened
- 4: Learn How to Prevent Future Attacks
- 5: Closing Ceremony: Cybersecurity Investigator Awards

- Ambassadors continue the roleplay and simulate how to respond to a cybersecurity incident.
 - They analyze log files to find out how the cyber attack occurred
 - They strategize how to keep the city safe from future cyber attacks.
 - They earn their Cybersecurity Investigator badge at the end of this meeting.
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