

# CADETTE

## Cybersecurity Badges

### NOTES TO VOLUNTEERS

***In the Cybersecurity badge series,*** Cadettes learn ways to protect their data and explore how cyber crime is investigated and prevented.

In Cybersecurity Basics, Cadettes learn about different hacking techniques and basic cybersecurity precautions. They'll simulate cyber attack strategies, like brute force and man-in-the-middle attacks. They'll explore why it's important to (and know how to!) protect themselves with strong passwords, secure encryption, and caution when clicking on links.

In Cybersecurity Safeguards, Cadettes learn how to keep their data secure. They'll learn why it's important to keep their personally identifying information private online. Then they'll explore the types of data that become part of their permanent digital footprint, including how corporations and criminals can use that data to target people with both legitimate ads and social engineering scams.

In Cybersecurity Investigator, Cadettes solve a series of fictional cyber crimes. They'll learn about potential vulnerabilities and risks in personal digital communications (emails, text messages, and social media) and practice investigative techniques used by cybersecurity professionals.

## About the Badges:

### **Follow the Badge Progression:**

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

- Cybersecurity Basics
- Cybersecurity Safeguards
- 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 Cadettes have fun in Girl Scouts and keep coming back.

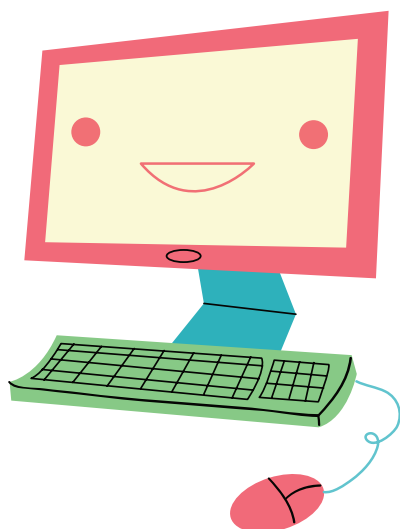
“Learning by doing” and “cooperative learning” are built into this badge, thanks to the hands-on activities and tips. You can look for ways to keep the badges “girl-led”, whether it’s helping to prepare or lead a meeting, having girls lead the discussion about the issues they’d like to work on for the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

**Leave Time for the Closing Ceremony:** If Cadettes 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 Cadettes 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 Cadettes 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. When you do that, you turn a hands-on activity into a minds-on activity.



These simple messages can boost girls’ 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 Cadettes will remember their whole lives. Try to capture those memories

with photos or videos. Cadettes love remembering all they did, and it's a great way for parents to see how Girl Scouting helps their Cadettes!

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

## To Prepare for the Meetings:

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

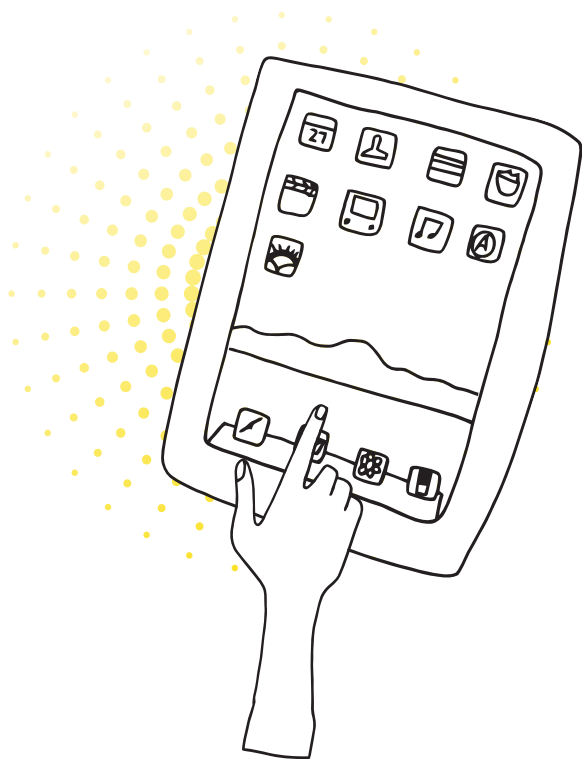
**Before each meeting, read through this guide and any meeting aids.** This will help you become familiar with the flow of the meeting. As you prepare, it's important to understand the activity steps and Things to Know, but feel free to adapt the activities to fit your troop, meeting time allotment,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

- **Cadette 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 Senior Cybersecurity badges.
- **Cadette Cybersecurity Badges – Glossary:** This is a list of words introduced in the Senior 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 Cadette 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:**

- Cadettes' parents, aunts, uncles, older siblings, cousins, friends, 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 two awards:**

- Cybersecurity Basics
- Cybersecurity Safeguards
- Cybersecurity Investigator

**Note to Volunteers:** You can buy these awards from your council shop or the Girl Scouts' Shop.



# Cybersecurity **BADGE BREAKDOWN**

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## CYBERSECURITY BASICS 1

- 1: As Everyone Arrives: Decode an Encrypted Quote
- 2: Opening Ceremony: Jump Into Cybersecurity Basics
- 3: Crack a Code
- 4: Hack a Password
- 5: Explore Two-Factor Authentication
- 6: Closing Ceremony: Cybersecurity Basics Flash Chat

- Cadettes learn about different hacking techniques and basic cybersecurity precautions.
- They explore encryption and use an encryption key to decrypt messages in code.
- They learn how to protect themselves with strong passwords and play a game to learn about brute force attacks.
- They play a fast-paced trivia game to learn about two-factor authentication.

## CYBERSECURITY BASICS 2

- 1: As Everyone Arrives: Spot the Phishing Email
- 2: Opening Ceremony: Keep Your Accounts Safe
- 3: Explore Social Engineering
- 4: Launch a Man-in-the-Middle Attack
- 5: Closing Ceremony: Cybersecurity Basics Awards

- Cadettes learn how to protect themselves from cyber attacks.
- They learn about phishing emails and how to identify a legitimate email.
- They explore social engineering scams and the consequences of clicking on bad links.
- They simulate how messages are sent along a network to learn about Man-in-the-Middle attacks and identify the areas where messages might be vulnerable to hacking.
- They earn their Cybersecurity Basics badge at the end of this meeting.

## CYBERSECURITY SAFEGUARDS 1

- 1: As Everyone Arrives: Create a Cryptogram
- 2: Opening Ceremony: Jump Into Cybersecurity Safeguards
- 3: Guard Your Identity
- 4: Create a Profile Based on Your Interests
- 5: Learn About Metadata
- 6: Closing Ceremony: Cybersecurity Safeguards Flash Chat

- Cadettes learn about personally identifiable information and how to protect it.
- They play a guessing game to learn about personally identifiable information.
- They learn how social engineering collects personal data.
- They encrypt and send messages and photos to one another to learn about metadata.

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## CYBERSECURITY SAFEGUARDS 2

- 1: As Everyone Arrives: Translate an EULA
- 2: Opening Ceremony: Protect Your PII
- 3: Shop for Apps in a Life-sized App Store
- 4: Inventory Your Digital Presence
5. Closing Ceremony: Cybersecurity Safeguards Awards

- Cadettes learn about app privacy and end-user license agreements (EULAs).
- They play a game to learn about the impact of how apps use personal data.
- They explore the types of data collected by websites and apps
- They earn their Cybersecurity Safeguards badge at the end of this meeting.

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## CYBERSECURITY INVESTIGATOR 1

- 1: As Everyone Arrives: Tabletop Discussion
- 2: Opening Ceremony: Jump Into Cybersecurity Investigator
- 3: Find Clues in Text Messages
- 4: Identify Phishing Emails
5. Learn How Hackers Use Social Media
6. Closing Ceremony: Cybersecurity Investigator Flash Chat

- Cadettes look for clues and identify potential vulnerabilities and risks in emails, text messages, and social media.
- They go through multiple roleplays to investigate what's gone wrong in each by looking for clues.
- They identify clues in texts to learn about password protection.
- They search through emails to find out what has gone wrong and learn about phishing.
- They explore social engineering and look for clues in social media profiles.

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## CYBERSECURITY INVESTIGATOR 2

- 1: As Everyone Arrives: Fill Out Device Logs
- 2: Opening Ceremony: Identify Potential Threats & Vulnerabilities
- 3: Analyze Log Files
- 4: Something's Phishy
5. Closing Ceremony: Cybersecurity Investigator Awards

- Cadettes continue identify cyber vulnerabilities and risks.
  - They continue the roleplay and analyze log files
  - They play a cybersecurity simulation card game to summarize different types of hacking techniques and reflect on what they've learned throughout the badge.
  - They earn their Cybersecurity Investigator badge at the end of this meeting.
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