

Think Like a Citizen Scientist

Materials List

Think Like a Citizen Scientist Pt. 1

Activity 1: As Everyone Arrives: A Scientist Noticed...

- **Prepare Ahead:** Before the meeting, create a set of 5 double-sided **Scientist Observation Cards** for each group of 3-4 girls. If you can't print double-sided, cut out the cards and write the corresponding discovery or observation on the back of each (make sure the ink doesn't run through!)

Activity 2: Opening Ceremony: Journey Introduction

- Flag
- **Optional:** Poster board with the Girl Scout Promise and Law

Prepare Ahead:

1. **Sign-up for SciStarter via the Girl Scouts landing page**
(<https://scistarter.com/girlscouts/volunteer/landing>)
2. **Review the Welcome Videos:** Once you sign up, you'll see a Welcome Page. Scroll down to view the Welcome Videos from each project leader. Stream or download the videos to show at the meeting. If you don't have a device, share descriptions of the projects, found in the **How to Use SciStarter for the Journey Meeting Aid**.

Activity 3: Make Observations About Your Environment

- One set of **Scientist Observation Cards** from *As Everyone Arrives: A Scientist Noticed...*
- Blank sheet of paper for each girl
- Pencil or pen for each girl
- **Optional (Highly Recommended):** It's highly recommended that girls go outside for this activity. It will give Cadettes the chance to make observations outdoors, which will also be an important part of the citizen science project in *Think Like a Citizen Scientist Pt. 3*.

Note to Volunteers: After the activity, collect and save Cadettes' observations and notes. They'll need these to continue observing their subject in *Think Like a Citizen Scientist Pt. 2*.

Activity 4: Closing Ceremony: Use Observation to Spot Problems

- **Take Action Guide**
- One set of **Scientist Observation Cards** from *As Everyone Arrives: A Scientist Noticed...*
- Paper
- Pen or pencil

Think Like a Citizen Scientist Pt. 2

Activity 1: As Everyone Arrives: Observe Problems in Your Community

- **Prepare Ahead:** Create 3 posters or chart papers with the labels “Local,” “National,” and “Global”
- Pen or pencil for each girl

Activity 2: Opening Ceremony: Identify Your Community for the Take Action Project

- List of the troop’s topics and issues for the Take Action project from *Think Like a Citizen Scientist Pt. 1*
- Lists of problems created in *As Everyone Arrives: Observe Problems in Your Community*
- **Take Action Guide** for each girl
- Pen or pencil for each girl
- Flag
- **Optional:** Poster board with the Girl Scout Promise and Law

Activity 3: Create a Field Guide for Your Community

- Blank paper, at least two sheets for each girl
- Pen or pencil for each girl
- Assorted tools for collecting and analyzing data, like sketchbooks, rulers, tape measures, cameras, magnifying glasses, stopwatches, calculators, thermometers, etc.
- **Optional - Prepare Ahead:** According to the subjects girls chose to observe in this meeting, find local or regional field guides of the subjects (birds, trees, flowers, etc.)
- **Optional:** Colored pencils or markers
- **Optional (Highly Recommended):** It’s highly recommended that girls go outside for this activity. It will give Cadettes the chance to make observations, collect data, and take measurements outdoors, which will all be an important part of the citizen science project in *Think Like a Citizen Scientist Pt. 3*.

Prepare Ahead:

1. **If you haven’t yet, sign up for a Girl Scouts SciStarter account at** <https://scistarter.com/girlscouts/volunteer/landing>
2. **Log in to your Girl Scouts SciStarter account at** <https://scistarter.com/girlscouts/volunteer/journey>
3. **Review the Remaining Welcome Videos to Show at the Meeting:** When you log in, you’ll see your dashboard. Scroll down to view the Welcome Videos from each project leader. Stream or download the remaining videos to show at the meeting. If you don’t have a device, share descriptions of the projects, found in the **How to Use SciStarter for the Journey Meeting Aid**.

Activity 4: Closing Ceremony: Take Action Like Scientists

- Take Action Guide
- List of the troop's topics and issues for the Take Action project
- Pen or pencil

Think Like a Citizen Scientist Pt. 3

Activity 1: As Everyone Arrives: Ask Questions about Your Community

- **Prepare Ahead:** Write each community problem from *Think Like a Citizen Scientist Pt. 1 & 2* on an index card or small slip of paper.
- Bowl to hold index cards (or slips of paper)
- Lightweight ball (Alternatively, you could crumble up a piece of paper.)
- Blank paper
- Pen or pencil

Activity 2: Opening Ceremony: Identify the Problem for Our Take Action Project

- Take Action Guide for each girl
- List of community problems from *Think Like a Citizen Scientist Pt. 1 & 2*
- List of questions about the community problems from *As Everyone Arrives: Ask Questions about the Problems in Your Community*
- Flag
- **Optional:** Poster board with the Girl Scout Promise and Law

Activity 3: Conduct Your Citizen Science Project

- Device (app or website on tablet, computer, or smartphone) or other materials needed to share data and show the 'Thank You' video on SciStarter
- Any other materials for the citizen science project (found on your SciStarter Dashboard or in the project's instructions)
- Field notebook or blank paper for each girl
- Pen or pencil for each girl

Prepare Ahead:

- **If you haven't yet, sign up for a Girl Scouts SciStarter account at** <https://scistarter.com/girlscouts/volunteer/landing>
- **Log in to your Girl Scouts SciStarter account at** <https://scistarter.com/girlscouts/volunteer/journey>
- **If you haven't yet, invite Girl Scouts to Join SciStarter:** When you select the project on your dashboard, it will create the Citizen Science Journey for your troop. Once you select a project, confirm your email to

receive your Citizen Science Session Link to share with the troop.

- **Review the project instructions and find out what materials you'll need** (found on your SciStarter Dashboard). Look over any materials or resources listed so you'll have everything you need, be able to answer questions, and support girls through the project. Depending on the project, you may need a device to take pictures and upload data, data forms, or other materials.
- See the **How to Use SciStarter for the Journey Meeting Aid** for more information on the citizen science projects and SciStarter.

Activity 4: Closing Ceremony: Create Impact for Others

- None

Think Like a Citizen Scientist Pt. 4

Activity 1: As Everyone Arrives: Wild Solutions

- **Prepare Ahead:** On the whiteboard or a large piece of chart paper, write "With unlimited time and resources, what would you do?"
- **Take Action Guide** for each girl
- Blank paper for each pair or group of 3-4 girls
- Pen or pencil for each girl

Activity 2: Opening Ceremony: How to Take Action Like a Citizen Scientist

- Flag
- **Optional:** Poster board with the Girl Scout Promise and Law

Activity 3: Design Our Take Action Project

- **Take Action Guide** for each girl
- List of community members and questions about the problem from *Think Like a Citizen Scientist Pt. 2 & 3*
- 6+ large pieces of paper or poster boards
- Blank paper for each girl
- Markers for girls to share
- Sticky notes for girls to share
- Pen or pencil for each girl

Optional Prepare Ahead:

- **Research the Problem.** The troop needs to find out more about their community or problem for the Take Action project. Before the meeting, Cadettes can do an online search to learn more about the problem. They may also be able to talk to people in the community to find out more and gather ideas for possible solutions. For example, if girls want to address a problem at their school, they could talk to other students or create a quick online survey to gather ideas and feedback.
- **Gather equipment.** Bring laptops, tablets, or smartphones for Cadettes to research the Take Action project during the meeting. You may need to organize time at a computer lab or library.
- **Invite a community member to the meeting.** The troop may want to invite a guest speaker to the meeting or visit the organization they want to help (for example, a local animal shelter, food pantry, city park department, etc.) This will take additional meeting time.

Activity 4: Closing Ceremony: Share Our Project Plan

- Plans and to-do lists created by girls in *Design Our Take Action Project*
- List of questions about the problem from *Think Like a Citizen Scientist Pt. 3*

Think Like a Citizen Scientist Pt. 5**Activity 1: As Everyone Arrives: Get Ready to Take Action!**

- Paper for each girl
- Pen or pencil for each girl
- Materials from the last meeting for the Take Action project (i.e. to-do list, materials list, etc.)

Activity 2: Opening Ceremony: Review Our Plan to Take Action

- Materials from the last meeting for the Take Action project (i.e. to-do list, materials list, etc.)
- Flag
- **Optional:** Poster board with the Girl Scout Promise and Law

Activity 3: Create Our Take Action Project

- Any materials Cadettes need for their Take Action project. **For example, you may need to bring:** A smartphone or camera if you're creating a video, a laptop if you're making PowerPoint slides for a presentation to the school board or city council, etc.
- For more examples of Take Action projects, use the **Take Action Guide**. Girls can use the examples as thought starters to help them develop their own ideas.

Activity 4: Closing Ceremony: Plan to Celebrate!

- Paper
- Pen or pencil

Think Like a Citizen Scientist Pt. 6

Activity 1: As Everyone Arrives: Prepare for the Celebration

- Girl Scout Promise and Law poster(s)
- Any items for the Take Action project presentation or to display
- Photos and videos documenting the citizen science or Take Action project
- Music system
- Decorations
- Snacks (**Note to Volunteers:** Check for food allergies or dietary restrictions in advance.)

Activity 2: Opening Ceremony: Welcome to the Celebration!

- Flag
- **Optional:** Poster board with the Girl Scout Promise and Law

Activity 3: Take Action Project Presentation & Awards Ceremony

- Anything girls brought or prepared for their presentation
- Think Like a Citizen Scientist award, one for each girl
- Take Action award, one for each girl

(**Note to Volunteers:** You can buy the awards from your council shop or the [Girl Scout Shop](#).)

Activity 4: Closing Ceremony: Think Like a Citizen Scientist

- Anything the girls brought or prepared for the Closing Ceremony