

## STEM Career Exploration Badge

# Materials List

### STEM Career Exploration 1

#### Activity 1: As Everyone Arrives: Mix and Match Careers

- **Prepare Ahead:** Before the meeting, print and cut out the **Mix and Match Career Cards**. You'll need at least one card for each girl.

#### Activity 2: Opening Ceremony: Jumpstart Your Future with Career Exploration

- **Mix and Match Career Cards** from *As Everyone Arrives*
- Flag
- **Optional:** Poster board with the **Girl Scout Promise and Law**

#### Activity 3: Explore How You Want to Make a Difference

- Chart paper or whiteboard and marker
- Paper for each girl
- Pen or pencil for each girl
- Cell phone or another timer

#### Activity 4: Discover Your Career Possibilities

- **Prepare Ahead:** Before the meeting, write this prompt on a sheet of chart paper or the whiteboard: "I'm going to make a difference by \_\_\_\_\_."
- Chart paper or whiteboard and marker
- Paper for each girl
- Pen or pencil for each girl
- **Optional:** Cell phone or another video camera for girls to film their personal PSAs
- **Optional:** Computer or internet-connected device and other technology to stream videos. See the box below for a list of recommended videos and more information.

#### Recommended Video List for Step Two (Optional)

Before the meeting, set up the videos below on a computer or internet-connected device to stream during the activity

- **Computer Science:** Anamita Guha, Global Lead of Product Management at IBM
- **Creative Technology & Design:** Crystal R. Emery, Founder and CEO of URU The Right To Be, Inc.
- **Engineering:** Aisha Lawrey, Senior Director, Programs and Scholarships at the National Action Council for Minorities in Engineering (NACME)
- **Food & Agriculture:** Chavonda Jacobs-Young, ARS Administrator and Acting USDA Chief Scientist
- **Health & Wellness:** Jessica Taaffe, Global Health Scientist
- **Nature & Environment:** Sam Wynns, Biologist and Science Educator

For a longer list of videos for each field, check out the **Cadette STEM Career Exploration Badge—Notes to Volunteers** handout. Feel free to swap out these videos with any you think your girls will be more interested in. If there's a video girls really love, please let us know at [STEM@girlscouts.org](mailto:STEM@girlscouts.org)!

## Activity 5: Closing Ceremony: Choose Your Own Future

- Pencil or pen
- Paper

## STEM Career Exploration 2

### Activity 1: As Girls Arrive: The World of STEM

- **Prepare Ahead:** Write each STEM field on a separate sheet of poster board or chart paper: Computer Science, Nature & Environment, Engineering, Creative Technology & Design, Health & Wellness, Food & Agriculture
- Marker or pen for each girl
- **Optional:** Objects and tools related to each field that can help inspire girls' ideas. Some ideas can be found in the box below.

#### STEM Objects & Tools:

- **Computer Science:** Computer, tablet, smartphone, video game controller or game, robot, computer cords and cables, etc.
- **Creative Technology & Design:** Thread, buttons, zippers, computer, LED wiring, colored pencils, internet-connected toy, DVD of animated cartoon, blueprint, sketchbook, etc.
- **Engineering:** Hammer, nail, calculator, ruler, protractor, clock radio, toolbox, hardhat, wrench, tape measure, lightbulb, etc.
- **Food & Agriculture:** Measuring spoons, recipes, menus, gardening shovel and other tools, mixing bowls, seeds, spices, food samples (especially if you're already doing snack time!), etc.
- **Health & Wellness:** Stethoscope, band aid, jump rope, elastic bandage, thermometer, glasses, crutches, sports equipment, etc.
- **Nature & the Environment:** Magnifying glass, Foldscope or microscope, petri dish, animal food, pipette, compass, goggles, fallen leaves, dried flowers, rocks, shells, etc.

### Activity 2: Opening Ceremony: Make a Difference Today and Tomorrow

- Cadettes' lists from *As Everyone Arrives*
- Flag
- **Optional:** Poster board with the **Girl Scout Promise and Law**

### Activity 3: Learn About the Day-to-Day

#### *Prepare Ahead for Option 1: Create Career Stations.*

1. Review your notes from STEM Career Exploration 1 and remove any fields the girls didn't show interest in.
2. Print the **STEM Field Sheets** for each remaining field (6 pages total, one page for each field).
3. Gather materials for each of the remaining fields according to the list below.
4. Before the meeting, create a "Career Station" for each remaining field around the meeting room. At each station, place the materials and **STEM Field Sheet** for that field.

*You'll need:*

- **For the Computer Science Station:** Paper and pencil for each girl
- **For the Creative Technology & Design Station:** Paper and pencil for each girl, colored pencils for girls to share
- **For the Engineering Station:** Paper and pencil for each girl; **Optional:** Building supplies like toilet paper tubes, dowels, newspaper, tape, scissors, etc.
- **For the Food & Agriculture Station:** Graham crackers, chocolate, marshmallows, assorted other snacks (like pretzels, dried fruit, chips, etc.); paper and pencil for each girl

**Note to Volunteers:** Snacks and food should be prepared with considerations for food allergies such as nuts and gluten.

- **For the Health & Wellness Station:** Newspapers, towel, cardboard, tape, string, etc. for girls to create splints
- **For the Nature & the Environment Station:** Paper and pencil for each girl

*Prepare Ahead for Option 2: Organize a guest speaker.*

1. Review your notes from *STEM Career Exploration 1* to understand what girls want to ask and learn about from a STEM professional.
2. Then, invite a guest to share their experience in-person or by video at the meeting. For example, you might seek out a STEM professional from your network or community, reach out to local schools for guidance, or connect with a STEM professional who can video chat with girls.
3. Make sure to share the time, location/link, and any questions girls want answered with your guest so they have enough time to prepare for the meeting.
4. If you're hosting a video chat, make sure to check your technology and internet connection before the meeting.

**Note to Volunteers:** For more information on inviting a guest speaker, check out Prepare Ahead #4 and the **Cadette STEM Career Exploration Badge—Notes to Volunteers** handout.

**Activity 4: Brainstorm Your Next Steps**

- **Map Your Career Path** for each girl
- Cadettes' written personal PSAs from Step One in *STEM Career Exploration 1*
- Paper for each pair or small group of 3–4 girls
- Pen or pencil for each girl
- **Optional:** If you filmed them, bring in the videos of Cadettes' personal PSAs from *STEM Career Exploration 1*.

**Activity 5: Map Your Career Path**

- Cadettes' **Map Your Career Path** handouts from Step Four
- 1 large sheet of poster board or construction paper for each girl

- Collaging materials, such as magazines, extra construction paper, tissue paper, newspaper, catalogs, stickers, decorative tape, glitter glue, photos, etc.
- Glue stick for each girl (or enough for girls to share)
- Scissors for each girl (or enough for girls to share)
- Blank paper for girls to share
- Markers for girls to share
- Paper and pencil
- Tape

#### Activity 6: Closing Ceremony: Share Your Vision & Awards

- Cadettes' maps from Step Five
- **Cadette STEM Career Exploration Badge—Family Guide** for each girl
- STEM Career Exploration badge for each girl

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