



For Adult Facilitators of Art and Design, Craft and Tinker, and Create and Innovate

# Get Making with Girl Scouts!

**Supporting Girl Scouts with Making of Any Kind**

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Detailed choice activities, meeting tools, and additional resources and materials can be found within the Volunteer Toolkit on [my.girlscouts.org](https://my.girlscouts.org).

Made possible by Stanley Black & Decker.

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## Get Making with Girl Scouts!

**About this Guide:** This guide is made to support adults facilitating the Maker badge lines, including Art and Design, Craft and Tinker, and Create and Innovate, but can be used to support any kind of making with Girl Scouts. To amplify what Girl Scouts do, you might include a field trip, invite a guest speaker, or create your own makerspace. No matter the size or scale of your makerspace, we hope this booklet brings you new ideas that spark Girl Scouts' interest and build their skills as makers.

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### Overview: Why Making and Makerspaces?

Making is creating or designing things. Sometimes it's woodworking or building electronics. Sometimes it's cooking, digital design, or simply painting. It combines the arts with areas such as life skills and science, technology, engineering, and math (STEM). It's even a way to get started with entrepreneurship, exploring how making and business can go hand in hand!

Making invites Girl Scouts to see themselves as inventors and creators. Through hands-on experiences, making helps Girl Scouts amplify their artistic skill sets and develop confidence to creatively solve problems. It's a powerful way to develop skills such as innovative thinking, collaboration and teamwork, intellectual curiosity, and perseverance. Technical skills like measurement and digital literacy can be applied in Girl Scouts' everyday lives. In the long-term, making can be a passion for Girl Scouts or even lead them into a career as a craftsperson.

Makerspaces are places where making happens! They have the tools, materials, and technology for Girl Scouts to try new things and bring their ideas to life. They can be created anywhere and with any amount of resources. They can last just for a troop meeting or become a permanent structure. Whether a pop-up corner or a building at a Girl Scout council or camp, makerspaces can support Girl Scouts of any age with the space to experiment and create projects they care about.

With a makerspace, Girl Scouts can try new things without having to alter their behavior due to expectations and stereotypes. Girl Scouts can meet new friends and experts or just connect with their existing troop members in a new way. Makerspaces can help build Girl Scouts' confidence as the makers of today and tomorrow, providing them with the space and support to try new things and learn skills in areas from computer science and engineering to drawing and woodworking.



## Get Making with Girl Scouts!

### Ideas to Create a Makerspace

Makerspaces come in all different sizes, locations, and layouts. When creating a makerspace, it's important to consider what kind of space you'll need, what equipment and materials to include, and how you'll support Girl Scouts and maintain the space. It can help to research the cost, brainstorm what you might already have available, and how partners and others in your network can help bring the makerspace to life. You might even make the development of the makerspace girl-led, involving Girl Scouts in brainstorming, researching, designing, and sourcing what they would like to have in the makerspace.

### Space and Infrastructure

There's more than one way to make a makerspace. You can build one or have it pop up somewhere like a community center, library, business, school, or other public space. You can even create a "mobile unit" in a van that can move from place to place.

Here are a few ideas to build a makerspace, either temporarily or for the long term:

- **Pop-up Makerspaces:** These can be set up anywhere and for any amount of time. They might include many resources or just a few, depending on the number of Girl Scouts participating. Materials can be placed on movable trays, carts, or bins for easy storage and transport to and from the pop-up space. Ideally, they're designed to be ready-to-use and easy to clean-up so Girl Scouts can try making anywhere.
- **Maker Corners:** These are small, dedicated spaces, such as the corner of a room or closet. They're similar to pop-ups except there's no need for transporting supplies, making clean-up and storage easier. They can also house larger equipment that's difficult to transport. Bins, shelving, and racks can help to organize and maintain the space.
- **Mobile Makerspaces:** Take making on the road! These makerspaces can be built into any kind of vehicle. A smaller mobile unit might be used mostly to store and transport supplies to pop-up spaces. A larger one might be outfitted with its own equipment to facilitate activities in the vehicle itself.
- **Dedicated Makerspaces:** These might be in a Girl Scout council, camp, classroom, or any other permanent location. Depending on the amount of space available, they can include a great amount of high-tech equipment, creating a permanent space to not only store supplies but also host events and workshops.



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### Equipment and Materials

Makerspaces can include any mix of supplies for Girl Scouts to experiment with and develop their projects. The lists below can be adapted for any level and for what you have available. You might choose to tailor your space to Girl Scouts' interests, such as by focusing on what's needed for visual art, robotics, woodworking, costume design, or even cooking.

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#### Art, Crafts, and DIY Supplies:

- Sketching supplies, such as paper, pencils, erasers, and rulers
- Drawing and coloring supplies, such as colored pencils, markers, and crayons
- Craft materials, such as modeling clay, beads, balsa wood, and fabric
- Variety of papers, such as cardstock, origami, poster board, loose leaf, and construction
- DIY materials, such as dowels, pipe cleaners, and craft sticks
- Decorations, such as stickers, rhinestones, and washi tape
- Sewing machine and sewing materials

#### Building and Construction Materials:

- Building materials, such as wood or metal
- Upcycled materials, such as cardboard, tin cans, and plastic bottles
- Hand tools, such as hammers, screwdrivers, and saws
- Power tools, such as power drills, circular saws, and staple guns
- Nails, screws, and nuts and bolts
- Measurement tools, such as rulers, tape measures, levels, and scales

#### Technology and Electronics:

- Computers and tablets
- Cameras and SD cards
- Printers and 3-D printers
- Robotics kits
- VR technology
- Electronic parts, circuits, and tools
- Electronic paint, conductive thread, LEDs, and copper tape to make projects that light up and move
- Craft machines for die-cutting, vinyl, embossing, and more
- Batteries

#### Miscellaneous:

- Various glues, tapes, tacks, string, rubber bands, and adhesives to put materials together
- Scissors, wire cutters, utility knives, and other tools to cut materials
- Paper towels, drop cloths, and newspaper to keep the space clean
- Storage containers and bins
- Tables, workbenches, and seating
- Lighting and power sources



## Get Making with Girl Scouts!

### Maintenance

When you go to the effort to create any kind of makerspace, you want to be sure it stays clean, safe, and ready for fun! Here are some ideas to keep your space and materials organized:

- **Set rules and guidelines.** Whether you're popping up in your regular meeting space or launching a brand-new, permanent location, let everyone know the rules of your space when they first arrive. You might even develop a Code of Conduct for those participating. This helps clarify roles and ensure that the makerspace is safe and cared for by all.
- **Keep an inventory book.** An inventory book lists all the materials and equipment in the makerspace. Having both a digital and hard copy that are reviewed and updated regularly can help you keep track of the supplies, especially if you'll be loaning out or transporting them. It can also help you to easily see what you have, what needs to be maintained, and what you may need to purchase.
- **Create zones.** Zones keep similar materials together, such as for computer technology, tinkering, crafting, and painting. Store the supplies for each zone in its own labeled bin to make set-up and clean-up easy. Have a sign for each zone so everyone knows what to expect and what materials to find there. Especially for a long-term or permanent makerspace, zones can also help Girl Scouts to depend less on adults or volunteers to locate materials as they become familiar with the materials found in each zone.
- **Develop a schedule.** A schedule helps Girl Scouts (and you!) know what activity to expect, what materials and tools will be used, who will be using them, and how they'll be maintained. It helps create roles from set-up to clean-up which can help eliminate conflict and confusion. It might also include tasks for longer-term upkeep, like equipment maintenance and reviewing your supplies against your inventory book.
- **Maintain the quality of your supplies.** As part of staying safe, regularly inspect your tools and equipment by checking each item and removing anything that's damaged. Follow the manufacturer's instructions for regular maintenance, like grinding or sharpening. Most importantly, always have an adult that is trained in the equipment or tool and can teach the participants how to use it. And always make sure to use the right tool for the job—don't try to use a wrench as a hammer!

### Building a Support Network

Your network includes all the people, businesses, and organizations within and outside of Girl Scouts that can support making with expertise, resources, and experiences. They might be professionals, make for fun, or simply want to support Girl Scouts. It can include Girl Scouts' families and friends, national and local Girl Scout partners, and others who work with youth, like schools, nonprofits, and community spaces like museums, science centers, and libraries. It can also include businesses, companies, and corporations with offices in your area.

**How can they help?** Your network may be able to:

- Provide volunteers or expertise to facilitate badge activities or maintain the makerspace.
- Donate materials, space, or equipment, such as a computer lab, kitchen, robotics lab, or studio, that can be used by Girl Scouts once or on an ongoing basis.
- Offer other maker experiences for Girl Scouts to build their skills and knowledge, such as with workshops, camps, and field trips.



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### Tips to Make it Great for Girl Scouts

- **Tailor what you do to your Girl Scouts' interests.** Making can use any kind of material or medium to bring Girl Scouts' ideas to life. For the Maker badges and beyond, you can adjust what Girl Scouts do and how you prepare your makerspace to either focus on one medium, such as woodworking, pottery, or cooking, or have materials for them to try out different mediums—it's up to you and your Girl Scouts! Keep the experience girl-led by asking your Girl Scouts what kinds of projects they're interested in or letting them know what's possible.
- **Use the three Girl Scout processes.** As part of the [Girl Scout Leadership Experience](#) (GSLE), Girl Scouts look at our world and take action to change it for the better. Making is a great way to facilitate the three processes with Girl Scouts. For example:
  - ▶ **Girl-led:** From selecting badges or materials to deciding how to organize an activity, you can encourage Girl Scouts to follow their own lead, no matter their age. And because some areas of making have been male-dominated, makerspaces can provide the space and support for Girl Scouts to follow their dreams and grow their skills—and the confidence that comes with that.
  - ▶ **Learning by doing:** Making is all about learning by doing, and makerspaces are a safe place where creative people can bring their projects to life! Hands-on activities are fun and help Girl Scouts feel empowered to shape their own experience. You can help unlock their “I've got this” attitude and discover they can always try again when things don't go according to plan.
  - ▶ **Cooperative learning:** With making, Girl Scouts can see firsthand that teamwork, respect, and collaboration can inspire new ideas and fuel them through any challenge that comes their way. You can empower and support Girl Scouts to build friendships to learn with, grow with, and to have to cheer them on.
- **Share diverse examples and role models.** Making is something that anyone can do. Diverse examples and role models help break down stereotypes and can help any Girl Scout say, “I see myself doing this.” Whether you're bringing in an expert or searching for examples of crafts and makers, prioritize elevating the experiences and work of women of color, disabled women, poor and working-class women, LGBTQIA+ people, and those with multiple intersecting identities.
- **Research and stay up to date.** Whether you're just beginning to design a pop-up makerspace or have an already established permanent space, find out what's new and innovative in making, such as new technology and equipment, and brainstorm how you can scale it for Girl Scouts within your makerspace. For example, you might learn about a material such as conductive thread, which can be used to sew circuits, turning any clothing project into an electronic wearable!
- **Share the story of your makerspace.** Let others know what Girl Scouts are making. For a short-term space, you might hold a special event showcasing Girl Scouts' work for their family and friends. For a permanent space, you might develop a social media page, website, or blog for others to keep up, participate, and support all that's happening. As Girl Scouts create, take photos and videos to share (with permission) and use in materials such as troop newsletters, social media posts, and end-of-year presentations.



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### Safety Activity Checkpoints

Safety is an important part of making and also of being a Girl Scout. A makerspace provides the chance for Girl Scouts to try many different types of materials, tools, and equipment. But just like any other activity with Girl Scouts, make sure what you do aligns with the Safety Activity Checkpoints (SACs) from Girl Scouts of the USA and your local Girl Scout council.

The SACs provide the standard safety guidelines for GSUSA and council approved activities. In addition to providing volunteers with safety guidelines to ensure the physical and emotional safety of girls, information is also included throughout SACs to ensure equity, diversity, and inclusive thinking when planning Girl Scout activities so all girls with a desire to participate are included. The national SACs can be found at [www.girlscouts.org](http://www.girlscouts.org).

In addition to the most recent SACs, consider these safety guidelines for a makerspace:

- **Ability grows with age and experience.** Tools vary greatly by their power source (battery-operated, electric, or manual) as well as what job they are to be used for. Your makers must be old enough to understand safety procedures and handle each piece of equipment. Before choosing projects or allowing your Girl Scouts to use any materials, tools, or equipment, evaluate their ability to use them safely. Review the “Master Tool Chart” in the SACs to make sure your activities are age appropriate.
- **Supervise the use of tools.** While using tools can achieve great accomplishments, using extreme caution with all tools is extremely important. Adults must supervise Girl Scouts, always, and Girl Scouts should never operate tools on their own or be left alone at any time. Adult supervision is mandatory for all projects using tools, no matter how big or small.
- **Dress for the activity.** Make sure Girl Scouts and adults remove any dangling earrings, bracelets, and necklaces that could become entangled in equipment. Tie back any long hair. Ensure everyone wears closed-toed shoes and other personal protective equipment such as eye goggles, leather gloves, and ear and head protection when necessary.
- **Know your stuff.** Be sure that at least one adult is trained how to properly use any tools in your makerspace, including safety precautions, equipment use, emergency procedures, and which grade levels are permitted to use specific tools.

For more information, check out the national SACs on [www.girlscouts.org](http://www.girlscouts.org). In addition to specific guidelines, such as what ages are allowed to use different tools, you can also find general safety tips to support using hand and power tools with Girl Scouts.

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► **Want to learn more about using tools safely?** Check out these [Safety Videos](#) that demonstrate everything from how to properly use a screwdriver to how to properly store and maintain your tools.