



Brownie Inventor Badge Activity Plan 1

Badge Purpose: When girls have earned this badge, they'll know how to think like an inventor.

Planning Guides Link: Science, Technology, Engineering and Math

Fun Patch Link: Inventions

Activity Plan Length: 1.5 hours

Involve Family and Friends: Participation from family and friends can enrich your troop's Girl Scout experience, both for the girls and for you. Use the suggestions below to make it easier for you to connect with additional support.

- Before the meeting:
 - Send a note to families to find those with interest in or expertise with the topic. Ask them to lead or support an activity or two, or even lead the whole meeting.
 - Offer this activity plan as a starting place and point out that they may choose alternative activities using the *Customize It!* section as a guide. For example: If an activity plan directs girls to sit outside and observe animal habitats, you may choose to go to the zoo and learn about animal habitats there instead.
- At home:
 - Encourage families to ask questions about their girls' badge activities. Some examples that work for any badge include: What did you learn? What surprised you? What does it make you think of trying next?
- Throughout the year:
 - Suggest to families ways that girls can share or display their Girl Scout accomplishments. Possibilities include a bulletin board, a scrapbook, a special memories box or family sharing time.

Girls Take the Lead: Include girl leadership through long-term planning, short-term meeting prep and specific activities at meetings.

- Long Term Planning
 - If you use "Plan Your Brownie Year", share this with the girls at the start of the year. Have them ask friends and family to help out with specific meetings or activities. Let the girls brainstorm ways to make the plans their own, such as thinking of related field trip activities. If a girl has experience with a field trip, ask her to be assistant tour guide.
 - If you are adapting the "Plan Your Brownie Year", get the girls' input on which badges to choose. Offer just a few choices in each category or timeframe to make decisions easier. Every girl should have at least one badge or journey she's excited about.
- Short Term Planning
 - Ask a family to help lead a badge. Make sure they have access to activity plans and any resources you might have. Keep additional requested materials to a minimum.
 - Choose two helpers to stay after a meeting for 15 minutes. Give them each an activity to introduce and either instruct or help guide at the next meeting.

- Before a meeting, ask everyone to vote on some aspect of the activity: draw posters or perform skits, open with a song or game, etc.
- Use a rotating list of helper tasks, called a 'kaper chart', to share responsibilities. Examples include acting as emcee of the meeting, leading an opening game, bringing a snack next meeting or taking attendance.
- At the Meeting
 - During the opening, have 1-2 girls share their answers to a get-to-know-you question.
 - Have girls fulfill their kaper chart responsibilities.
 - Try to find something in each activity that you can let girls decide or manage.

Customize It: If your group wants to expand work on this badge or simply try different activities, go for it! There are many ways to earn this award, including: completing the activities as listed in the Brownie Skill-Building Badge set for *It's Your Story—Tell It!*, completing two of these activity plans, attending a council-sponsored event or customizing activities. Pick the one(s) that work best for your group. Girls will know they have earned the award if:

- They can imagine familiar items in a new context
- They have tried multiple solutions to address a problem and evaluate their success
- They have shared what they learned and listened to new ideas from others

Tips and Tools

- Check out ways to stay safe using Safety-Wise at <http://gsrv.gs/safetywise>.
- Ensure that your activities are accessible to everyone. Ask in advance if any special accommodations need to be made. If you have questions regarding specific adaptations, please contact River Valleys at 800-845-0787.

Resources

- This activity plan has been adapted from the Brownie Skill-Building Badge set for the *It's Your Story—Tell It!* Inventor B adge, which can be used for additional information and activities.

Getting Started

Time Allotment: 15 minutes

Materials Needed:

- Optional: Girl Scout Promise and Law printed out on poster board

Steps:

- Welcome everyone to the meeting.
- Recite the Girl Scout Promise and Law. Use repeat-after-me or say it as a group if girls know it by heart.

Girl Scout Promise	Girl Scout Law
<i>On my honor, I will try:</i> To serve God and my country, To help people at all times, And to live by the Girl Scout Law.	<i>I will do my best to be</i> honest and fair, friendly and helpful, considerate and caring, courageous and strong, and responsible for what I say and do, <i>and to</i> respect myself and others, respect authority, use resources wisely, make the world a better place, and be a sister to every Girl Scout.

- Sing the Brownie Smile Song. Use repeat-after-me or sing as a group if girls know it by heart.

The Brownie Smile Song
I've got something in my pocket It belongs across my face I keep it very close at hand In a most convenient place I'm sure you wouldn't guess it If you guessed a long, long while So I'll take it out and put it on It's a great big Brownie Smile!

Activity #1: Ministry of Silly Walks

Badge Connection: Step 1—Warm up your inventor's mind

Time Allotment: 10 minutes

Prep Needed:

- None

Materials Needed:

- None

Steps:

1. Have girls line up along one side of the room. Tell them that on the count of three, everyone is going to walk across the room together, walking normally.
2. After a few steps, stop the group to try something more interesting. Can there be more than one way to walk across the room? Start with the girl next to you and ask how she would change what her feet are doing. If she gets stuck, offer a few choices, and then have the group pick a new way to walk (e.g. maybe everyone points their toes as they bring their feet up, turns to their left and shuffles sideways or walks just on tiptoes).
3. Move on to the next girl and have her add something to the way their knees move. Then ask if both legs have to do the same thing, and have the next person choose something new for the right leg only.
4. Add movements for arms, shoulders and head.

5. If you have a large group and want to give everyone a chance, start over partway through with plain walking and build a new silly walk from scratch. Or, divide into teams of 8–10 and talk each group through adding one variant at a time.

Activity #2: All This Needs Is a Little...

Badge Connection: Step 3—Make a needs list

Time Allotment: 15 minutes

Prep Needed:

- Gather materials and supplies.

Materials Needed:

- Large sheets of big paper
- Markers
- Tape
- Scrap paper

Steps:

1. Ask the girls to close their eyes and think about what they've done today, even the ordinary things. Start with getting up in the morning.
 - What happens in your home each morning?
 - Was there anything different about today?
 - What did you do to get ready? Get dressed, eat breakfast, etc?
 - Did you go to school today? How did you get there?
 - Continue throughout the day, up to and including the Girl Scout meeting right now.
2. Ask girls to share some examples of what they did and take notes on scratch paper as you collect ideas. Be ready with some prompts if girls get stuck, such as: dressing for school, taking care of someone else (younger siblings, a neighbor, pets), connecting with a friend, cleaning your room and preparing for a meal.
3. Collect examples until you have at least five tasks that are common enough for everyone to understand, and general enough that they could be done in different ways. If you have a large group, make sure you have at least one task for every three girls.
4. Have volunteers write out the actions on large sheets of paper, one per sheet, in big letters. Tape them up around the room.
5. Divide the girls equally between the action papers and have them think of anything about this task that could be an issue.
 - If the task is "setting the table for supper," issues could include arguments about whose turn it is, not being able to reach items on a top shelf, carrying items that are easy to drop or a younger sibling who gets in the way.
 - For "brushing your teeth," issues could include getting all the toothpaste out of the tube, dental floss that won't tear or that gets stuck, getting to the upper back teeth or any of the mess left behind.

For now, girls don't have to worry about any solutions. Before we can fix something, we have to know the problem! Give girls three minutes to discuss, brainstorm, and draw or write their "issue" ideas.

6. Now let the girls move to any paper that interests them. Have them look at some of the issues and see if they inspire any additional issues or solutions. They can add their ideas right to the paper.

Activity #3: Creative Chef's Veggie Dip

Badge Connection: Step 2—Find lots of ways to solve the same problem

Time Allotment: 15 minutes

Prep Needed:

- Gather materials and supplies.
- Wash and cut assorted fruits and veggies.

Materials Needed:

- Assorted, washed and cut fresh fruits and/or vegetables
- Paper plates and napkins
- 3 oz. paper cups
- Spoons—ordinary/teaspoons for each girl, small (1/4 and 1/8 teaspoon) for flavor items
- Sink and soap to wash hands or hand sanitizer
- Dip bases: Choose from mayonnaise, oil, sour cream or plain yogurt
- Dip flavors: Choose from vinegar, mustard, salsa, ranch dressing mix, paprika, cinnamon sugar, honey, salt, pepper, spices, herbs and sauces. **Note:** You may want to limit choices to only fruits or veggies, and only sweet or savory dip options.

Steps:

1. Give each girl a 3 oz. cup and have her choose one spoonful of a base ingredient to start her special recipe dip. She will keep the spoon to mix other ingredients in. Use other spoons to scoop out or measure the flavor ingredients. Make sure girls' personal mixing (and tasting) spoon does NOT go into any of the other containers.
2. Go over the flavor options available and tell each girl to pick one or two items to flavor her dressing (to make vinaigrette, a girl should choose both oil and vinegar to start and then add one or two flavor ingredients). Ask Badge Buddies and Food Friends to make sure spoons stay with their ingredients, spices are added in small amounts and ask them to assist with spills.
3. After stirring up her recipe, each girl can taste a little from her spoon and decide if she needs more of one of the ingredients.
4. Choose some fruits or veggies to try with your dip and enjoy!

Activity #4: Snack Chat

Badge Connection: Step 2—Find lots of ways to solve the same problem

Time Allotment: 10 minutes

Steps:

1. While enjoying snack, here are some things for girls to talk about.
 - What is unique about your snack?
 - What does it remind you of?
 - If you could start over, what would you change?
 - What else could be an option that we didn't use?

Activity #4: Look What I Have!

Badge Connection: follow up to Step 3—Make a needs list

Time Allotment: 10 minutes

Prep Needed:

- Gather materials and supplies.

Materials Needed:

- Simple props: a sheet of paper, tennis or Nerf ball or come up with your own props

Steps:

1. Remind the girls of the brainstorming they did on daily tasks and problems there were with those tasks. Sometimes, something simple we already have around the house can make a perfect solution.
2. Have everyone gather in a circle. Hand the paper to the girl on your left and the ball to the girl on your right (or use whatever props you brought).
3. Tell them that they should think about how this item could be used in a new way. In the case of the paper and ball, it should be something other than writing or playing a game. It might not be easy or practical, and it might only remind you of the tool you really need.
4. When a girl is ready to share, she can start with "Look what I have!" and then name and/or act out her object and its purpose. For example:

- "Look what I have! I can make this paper into a drinking straw."
- "Look what I have! I can make a fun painting with the ball by dipping it in paint and rolling it around the paper."

Girls can fold, bend or squeeze the object, and they can *describe* damaging it by cutting, tearing or pulling apart, but they can't actually do anything that would ruin it for the next person. They'll just have to pretend.

5. When someone else has something to suggest, they can raise their hand and ask for the object. Then, they should walk over and say, "Look what I have!" as they take the object back to their spot and describe its new purpose.

Wrapping Up

Time Allotment: 15 minutes

Materials Needed:

- Optional: Make New Friends printed on poster board

Steps:

- Instruct girls to get into a Friendship Circle. Have girls stand in a circle and cross their right arms over their left, holding hands with the person on each side of them.
- Sing "Make New Friends."

Make New Friends		
Verse One	Verse Two	Verse Three
Make new friends, but keep the old. One is silver, the other is gold.	A circle is round, it has no end. That's how long, I will be your friend.	You have one hand, I have the other. Put them together, We have each other.

- After the song, ask everyone to be quiet.
- Assign a girl to start the friendship squeeze by gently squeezing her neighbor's hand with her right hand. Then, that girl squeezes with her right hand. One by one, each girl passes the squeeze until it travels around the circle. When the squeeze returns to the girl who started, she says "Goodbye Sister Girl Scouts" and the girls unwrap and face outward instead of inward.
- Optional: Have girls make a wish after their hand has been squeezed and before they pass the squeeze along. Girls can also put their right foot out into the circle when they receive the friendship squeeze, so that everyone can see it travel along the circle.

More to Explore

- Field Trip Ideas:
 - Attend a regional engineering competition, such as FIRST Robotics or FIRST Lego League, or invite a local high school team to visit with your troop or service unit. Teams must do outreach in order to participate, so you would be helping them as well.
 - Visit a hardware or home repair store and look at the tools. Find tools you haven't seen before and make some guesses before asking about their actual use.
- Speaker Ideas:
 - Invite a someone with a background in marketing or advertising to discuss how to promote a new product.
 - Invite an engineer that works in product development to talk about their experiences.

Suggestions

Do you have any suggestions to improve this activity plan? Do you have ideas for other possible badge-earning activities? Please email troopsupport@girlscoutsv.org.

Family Follow Up Email: Use the email on the next page as a template to let families know what girls did at the meeting today. Feel free to add additional information, including:

- When and where you will be meeting next
- What activities you will do at the next meeting
- Family help or assistance that is needed
- Supplies or materials that girls will need to bring to the next meeting
- Reminders about important dates and upcoming activities

Hello Girl Scout Families:

We had a wonderful time today learning about creative problem solving and are on our way to earning the Inventor Badge.

We had fun:

- Seeing old objects and actions in new ways.
- Identifying tasks we do every day that could be made better.
- Creating new recipes for a dip.

Continue the fun at home:

- Choose a tool or appliance in your home and explore how it's used and how it works.
- If you have an appliance beyond repair, have your Girl Scout join you in taking it apart to see what's inside.
- Watch a scene of a favorite movie or TV show together with the sound off. Write your own dialogue.
- Look through the *Girl's Guide to Girl Scouting* with your Brownie to find other activities you can try at home.

Thank you for bringing your Brownie to Girl Scouts!