

# Engineer Your BLISS!

A Planner for Girl Scout Volunteers:  
Adding an engineering focus to the *BLISS: Live It! Give It!* leadership development program



LEADERSHIP



ENGINEERING

# DEAR **Volunteers**

ENGINEER YOUR BLISS!

## Girl Scouts & Techbridge: Bringing Engineering to Girls

Girl Scouts of the USA has worked in collaboration with Techbridge, a leader in providing girls with firsthand experience working as engineers on educational design challenges. Techbridge, an Oakland, California, nonprofit launched in 2000, offers curricula that build on girls' interests and expands their career options. The Techbridge team developed programs-in-a-box, which have activities and materials you can use to introduce girls to the wonders of engineering and science. Thank you for joining Techbridge to bring engineering to Girl Scouts in your community! Together we can inspire girls to change the world.

We gratefully acknowledge the support of the Noyce Foundation.

**G**irl Scouts on a *BLISS: Live It! Give It!* Journey define their dreams, set goals to achieve them, and find ways to help others do the same. Engineers work in similar ways by defining problems and coming up with solutions.

Adding in some fun, hands-on engineering activities gives girls a chance to create, work as teams, and problem solve. You will inspire girls to discover their talents and dreams, feel confident about pursuing engineering careers, and be excited about how they, as engineers, can make the world a better place. Girls can explore techniques and strategies to use on this Journey and throughout their lives, whether or not they pursue a career in science, technology, engineering, and math (STEM).

Of course, the magic, fun, and friendship of Girl Scouting happen not in just *what* girls do but in *how* they do it. As you guide these activities, keep these three ways of interacting with girls in mind:

### GIRL-LED

Make the Journey girl-led by letting girls:

- Choose which activities to do
- Find and invite guest speakers
- Create an opening or closing ceremony

### COOPERATIVE LEARNING

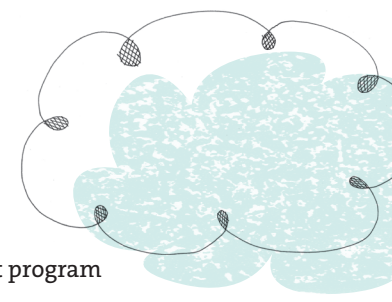
Help girls learn as a team by encouraging them to:

- Participate and share information with one another
- Play a specific role or take on a responsibility within their teams
- Assess their effectiveness as a group in meeting their goals

### LEARNING BY DOING

To help girls learn by doing, make sure that they:

- Figure out their own solutions as they do activities
- Test their results, the way a scientist would
- Make mistakes—it's okay if the activity doesn't work. That's learning by doing!



## MATERIALS

- 1 You'll need the *BLISS: Live It! Give It!* Adult Guide, and each girl in your group will need a *BLISS* Girl Book. See the materials list on the opening page for each session of *BLISS* for the materials you'll need.
- 2 Techbridge supplies the *Power It Up* leader guide and engineering activity materials in its program box. You can borrow or buy your kit through your council, Techbridge, or the Science Source at [thesciencesource.com](http://thesciencesource.com).
- 3 A printed version of this planner will come in your *Power It Up* toolkit, or you can download it at [www.techbridgegirls.org](http://www.techbridgegirls.org).

**L**eadership and STEM (science, technology, engineering, and math): it's all related! That's why it's important to use the Girl Scout leadership development program *BLISS: Live It! Give It!* along with Techbridge's engineering program *Power It Up*.

## How to use this planner

As you do the 10 *BLISS: Live It! Give It!* Journey sessions with your troop, this planner will show you where and how to add an engineering focus. Read across each row to find:

**Column 1** The Journey session and approximate time the add-on engineering activity will take.

**Column 2** The page number and a brief description of the *BLISS: Live It! Give It!* activity to which you will add an engineering focus.

**Column 3** The page number and a brief description of the *Power It Up* activity, which you will do as instructed in the *Power It Up* guide.

**Column 4** How to add an engineering focus to the *Bliss: Live It! Give It!* activity—and additional instructions or reflection questions for the *Power It Up* activity, if needed.

## Each session in this planner includes

- Opening Ceremony: an icebreaker to help introduce the session's theme.
- Hands-on STEM activities and where to find step-by-step instructions in *Power It Up's* leader guide.
- Closing Ceremony: career exploration and more Girl Scout leadership connections.

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### You may be wondering...

#### Can I use the *Engineer Your BLISS!* planner on its own?

No. This planner is designed to work alongside the *BLISS: Live It! Give It!* Journey Adult Guide. As you go on the *BLISS* Journey with the girls, this planner shows you where and how to add an engineering focus.

#### If girls add an engineering focus to the *BLISS* Journey, will they still earn Leadership awards?

Absolutely! As always, just follow the steps outlined in your *BLISS* Adult Guide to help girls earn their Dream Maker award.

## SESSION 1

Opening Ceremony:  
*Your Wildest Dream*

About 15 minutes

**BLISS: Live It! Give It!**  
Journey Adult Guide

p. 29 Do, *Your Wildest Dream*

As girls pass around a cotton “cloud,” they voice their dreams out loud for the first time! This gets girls comfortable talking in a group and starts their thinking about at least one dream, even if it takes a few tries.

**Power It Up**

Hang the Engineering Design Process poster provided in kit.

Read *Engineering Design Process*, p. 5, for an explanation of what it means so you’ll know how to explain it to girls.

**Add an Engineering Focus****BEFORE GIRLS DO YOUR WILDEST DREAM**

**SAY** *Welcome to Engineer Your Bliss! What does this mean? We’ll be doing two things together: First, we’ll explore your dreams for the future. Second, we’ll find out what engineering is all about and get to do some fun, hands-on experiments to experience what engineers do.*

*What is the connection between your dreams and engineering? Engineers have a certain way of working. It’s called the engineering design process, or EDP. The process contains steps that they take when they spot a problem and then create a solution. These same steps can help guide you as you pursue your dreams.*

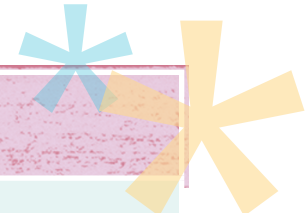
**AFTER YOUR WILDEST DREAM**

**DO** Explain to girls that the word *science* is shorthand for all STEM fields: science, technology, engineering, and math; the word *scientists* refers to all people who work in those fields.

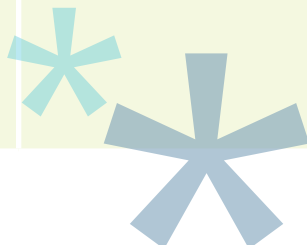
**ASK**

- *How could science help make your dreams come true?*  
Example responses: “Cure cancer. New uses for renewable energy. End poverty.”
- *What interests you most about science? Have you ever thought about being a scientist?*
- *How would you describe what an engineer does?* Example responses: “Engineers are creative problem-solvers.” “Engineers use math, science, and their imagination to help improve something.”

This might be something you share with the girls—a way to get a discussion going—or it might be a hands-on activity from *Power It Up*. You can decide what to add to your Journey, depending on your schedule and the girls’ interests.



SESSION 1	<b>BLISS: Live It! Give It! Journey Adult Guide</b>	<b>Power It Up</b>	<b>Add an Engineering Focus</b>
<p><b>Activity 1:</b> <i>Of Needs and Dreams + Engineering Design Process</i></p> <p>About 15 minutes</p>	<p>p. 34, <i>Do Of Needs and Dreams</i></p> <p>Girls write their needs on index cards, like “breathing air,” “having friends,” “family,” or “eating.” Next, they stack needs in terms of importance, just like they’d do with their dreams.</p>	<p>p. 5, Engineering Design Process poster: Girls will write the EDP steps on index cards—refer them to the poster provided in the kit.</p>	<p><b>AFTER GIRLS DO OF NEEDS AND DREAMS</b></p> <p><b>SAY</b> <i>There are many versions of the engineering design process, or EDP. In this diagram, the EDP is a never-ending cycle of creativity. With each step you take toward your dream, think about where you are in this design cycle.</i></p> <p><b>DO</b> Invite girls to write the EDP steps on index cards. On the back of each, have them write their name and ask them to write what they think each step means. Tell the girls to keep their cards so that they can look at them in future meetings. Or collect them to hand back to the girls when they need them.</p> <p><b>ASK</b></p> <ul style="list-style-type: none"> <li>● <i>Why did you <b>identify</b> that particular dream? Have any other people achieved the same dream? What do you see as your roadblocks along the way, and how could you get around them?</i></li> <li>● <i>How might you <b>brainstorm</b> ways to make your dream happen? Would you do research? Talk to experts?</i></li> <li>● <i>Can you talk through the steps of the EDP as they might work in your journey to making your dream a reality? How could you <b>design</b> a different approach to your dream?</i></li> </ul>
<p><b>Activity 2:</b> <i>Snap Circuits®</i></p> <p>About 30 minutes</p>	<p>No matching activity</p>	<p>pp. 6–7 Read <i>Background Information</i> about electricity and circuits to help explain the concepts in <i>Snap Circuits</i> to girls.</p> <p>p. 24, <i>Do Snap Circuits</i></p> <p>Girls will build a simple circuit to find out how current flows from a battery, through the switch, to the lightbulb, and back to the battery.</p>	<p><b>BEFORE GIRLS DO SNAP CIRCUITS</b></p> <p><b>DO</b> Share the background information on pp. 6-7 of <i>Power It Up</i> with girls. Get girls familiar with what the terms mean, what the components are, and what they look like.</p> <p><b>SAY</b> <i>Here’s your chance to start using the engineering design process and be an electrical engineer while you create a simple circuit.</i></p> <p><b>AFTER SNAP CIRCUITS</b></p> <p><b>DO</b> If girls are having fun and there is time, invite them to continue experimenting with circuit combinations in the kit. This might also be something girls can do in a separate session.</p>



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## SESSION 1

Closing Ceremony:  
*Introducing the  
Dream Maker Award  
+ Career Card*

About 15 minutes

NOTE TO VOLUNTEERS: To help you invite and engage local STEM role models, search under the "What We Do" heading of [www.techbridgegirls.org](http://www.techbridgegirls.org).

**BLISS: Live It! Give It!**  
Journey Adult Guide

p. 30, Do *Introducing The Dream Maker Award*. Make sure to refer to the *Dream Maker Award* description on p. 12.

Girls have a chance to earn a *Dream Maker Award* individually, in small teams, or as one big group.

**Power It Up**

p. 55, Share *Career Card*, Electrical Engineer Maria Alvarado to give girls an example of a successful dreamer.

p. 13, *Planning a Role Model Visit*

Use this to guide girls to invite a successful dreamer guest speaker to come talk to the group.

**Add an Engineering Focus****AFTER GIRLS DO INTRODUCING THE DREAM MAKER AWARD**

**DO** Remind girls that one of the steps toward earning the Dream Maker award is to find and interview three successful women in their community about their dreams and how they achieved them. Suggest that girls find female engineers and scientists to interview.

Also get girls thinking about how the engineering design process (EDP) might help them earn this award. Discuss with girls how they can **identify** dreamers, **brainstorm** ideas for how to achieve a dream, **choose** a path to follow with their dreamer, **design** a plan to achieve it, **test** their plan, and **show** their results at their final session's *BLISS* bash.

**SAY** *As we explore your dreams and help others to achieve theirs, we'll meet a variety of female engineers and scientists profiled in Techbridge's Power it Up Career Cards.*

**DO** Share the *Career Card* profile of Electrical Engineer Maria Alvarado on p. 55 in *Power It Up*.

**ASK**

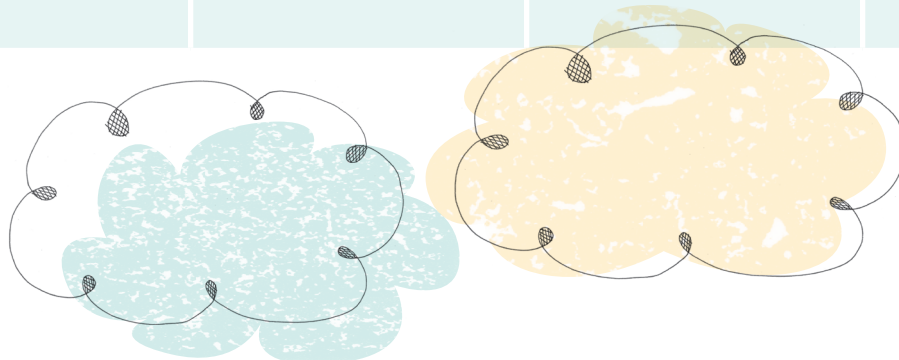
- *What does Maria hope to achieve by being an electrical engineer?*
- *What might appeal to you about exploring a career in engineering?*
- *Which dreams can electrical engineering help achieve?*

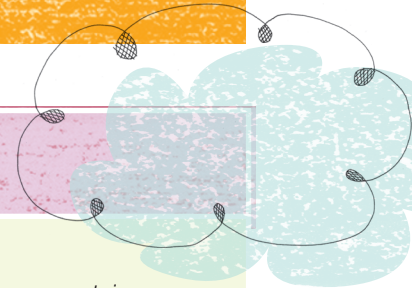
**AFTER CAREER CARD**

**DO** Ask the girls to start thinking about a career woman or another girl to invite to a future session to share their dreams. Encourage girls to research or ask family and friends about STEM role models in their community. Look at *Planning a Role Model Visit* on p. 13 in *Power It Up* for tips to share with girls.

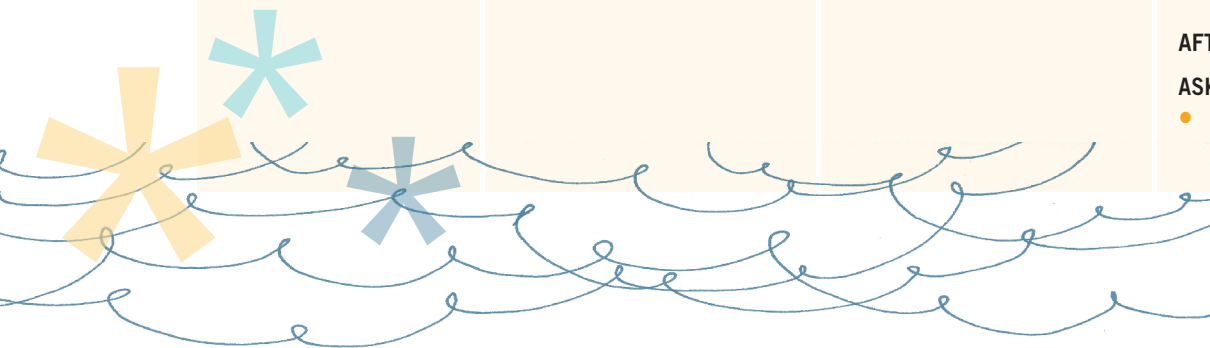
SESSION 2	<b>BLISS: Live It! Give It! Journey Adult Guide</b>	<b>Power It Up</b>	<b>Add an Engineering Focus</b>
<p><b>Opening Ceremony: Curtain of Dreams</b> About 15 minutes</p>	<p>p. 40, Do <i>Curtain of Dreams</i> Girls write their dreams on a strip of paper to chain together, creating a curtain. This gets girls thinking about how one dream might trigger another.</p>	<p>No matching activity</p>	<p><b>AFTER CURTAIN OF DREAMS</b> <b>SAY</b> <i>As you were linking together your Curtain of Dreams, you were making connections—much the same way the simple circuits you made conduct electricity.</i></p>
<p><b>Activity 1: Break the Chain</b> About 20 minutes</p>	<p>No matching activity</p>	<p>p. 17, Do <i>Break the Chain</i> Girls role-play components, showing how electricity flows in a simple circuit.</p>	<p><b>BEFORE GIRLS DO BREAK THE CHAIN</b> <b>SAY</b> <i>Now you will role-play the different electrical components to really experience how a circuit works!</i> [Note to volunteers: You might want to do a quick review of the background information on pp. 6–7 in <i>Power It Up.</i>]</p> <p><b>AFTER BREAK THE CHAIN</b> <b>ASK</b></p> <ul style="list-style-type: none"> <li>• <i>Think about the role you played in the circuit. How did your particular role help in making the connection?</i></li> <li>• <i>How did playing the parts of the circuit help you understand how to achieve dreams? By working together? Following a path? Staying switched on? Do these components remind you of different parts of your journey? For example, what powers your passion?</i></li> </ul>

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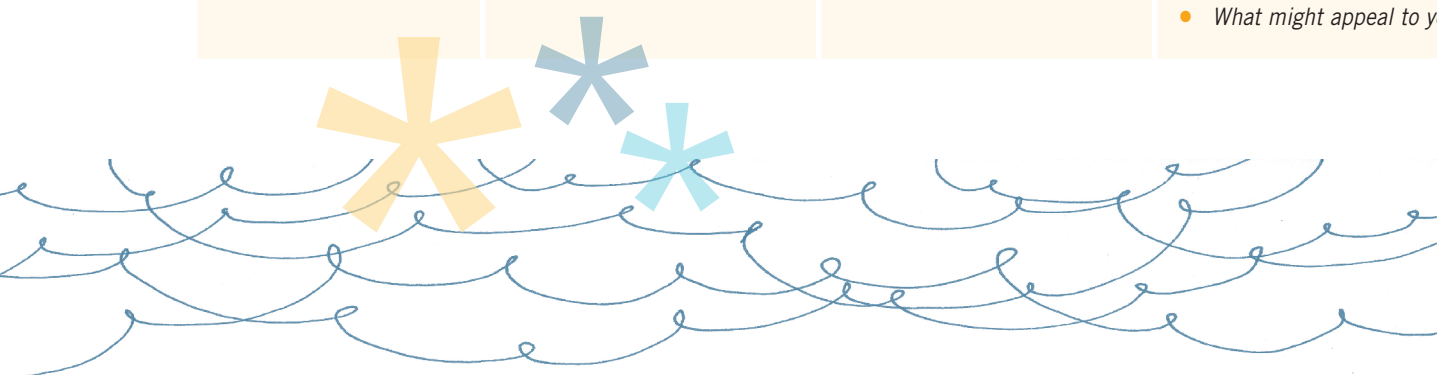
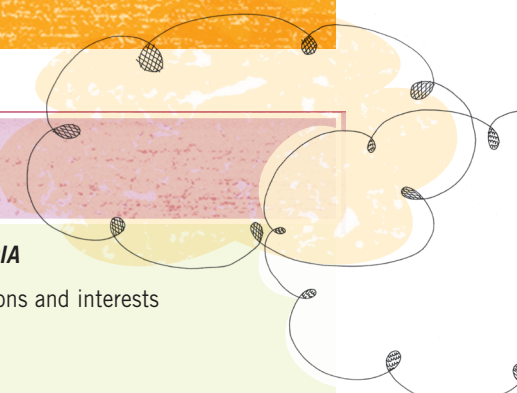
SESSION 2	<b>BLISS: Live It! Give It!</b> Journey Adult Guide	<b>Power It Up</b>	<b>Add an Engineering Focus</b>
<p><b>Activity 2:</b> <i>Conductors vs. Insulators</i></p> <p>About 20 minutes</p>	<p>No matching activity</p>	<p>p. 26 Do <i>Conductors vs. Insulators</i></p> <p>Girls find out whether materials are <i>conductors</i> (allowing electricity to pass through) or <i>insulators</i> (not allowing electricity to pass through).</p>	<p><b>BEFORE GIRLS DO CONDUCTORS vs. INSULATORS</b></p> <p><b>SAY</b> <i>When you did Curtain of Dreams, you saw how your curtain connects dreams—much like a circuit connects different components, allowing electricity to flow through. Here you'll find out which materials allow electricity to pass through them and which don't.</i></p> <p><b>AFTER CONDUCTORS vs. INSULATORS</b></p> <p><b>ASK</b></p> <ul style="list-style-type: none"> <li>• <i>What are the “conductors” of your dreams? What are the “insulators”?</i></li> <li>• <i>Does carving out time to be creative help you stay connected to your dreams?</i></li> <li>• <i>What prevents you from connecting with your dreams?</i></li> <li>• <i>What helps to keep your energy flowing, like a conductor does, to help achieve your dreams?</i></li> </ul>
<p><b>Closing Ceremony:</b> <i>Career Step Up</i></p> <p>About 20 minutes</p>	<p>No matching activity</p>	<p>p. 52, Do <i>Career Step Up</i></p> <p>Girls learn how different careers work together to create a product.</p>	<p><b>BEFORE GIRLS DO CAREER STEP UP</b></p> <p><b>SAY</b> <i>In Curtain of Dreams, you saw how dreams might be linked. Science careers are linked, too. How? For instance, it takes several scientists working together to create a cell phone: a software engineer, electrical engineer, and materials science engineer. Can you think of another common device (such as a blow-dryer or an elevator) and the scientists behind creating it?</i></p> <p><b>AFTER CAREER STEP UP</b></p> <p><b>ASK</b></p> <ul style="list-style-type: none"> <li>• <i>How is this related to your dreams? With whom will you need to collaborate to achieve your goals?</i></li> </ul>



SESSION 3	<b>BLISS: Live It! Give It!</b> Journey Adult Guide	<b>Power It Up</b>	<b>Add an Engineering Focus</b>
<p><b>Opening Ceremony:</b> <i>When Values Collide</i></p> <p>About 10 minutes</p>	<p>p. 40, Do <i>When Values Collide</i></p> <p>Girls are asked to judge something to see how their values affect their responses.</p>	<p>No matching activity</p>	<p><b>AFTER GIRLS DO <i>WHEN VALUES COLLIDE</i></b></p> <p><b>ASK</b></p> <ul style="list-style-type: none"> <li>• <i>Can you imagine an instance in which a scientist's values might affect their work? For example, if a scientist doesn't believe in using animals for research?</i></li> <li>• <i>How can scientists who have different values work together?</i> Example response: They work as a team, and come to a consensus.</li> </ul>
<p><b>Activity 1:</b> <i>Line in the Sand</i></p> <p>About 20 minutes</p>	<p>p. 46, Do <i>Line in the Sand</i></p> <p>Girls learn how double standards might pose problems for people, including scientists.</p>	<p>No matching activity</p>	<p><b>ADD THESE STATEMENTS TO <i>LINE IN THE SAND</i></b></p> <ul style="list-style-type: none"> <li>• <i>It's okay to give only boys LEGO toys and girls dolls.</i></li> <li>• <i>It's okay for women to design cars.</i></li> <li>• <i>It's okay that women have to work harder to be successful in science professions.</i></li> <li>• <i>It's okay for girls to play with robots and building blocks.</i></li> <li>• <i>It's okay for women to get more scholarship opportunities than men to study engineering in college.</i></li> </ul> <p><b>AFTER <i>LINE IN THE SAND</i></b></p> <p><b>ASK</b></p> <ul style="list-style-type: none"> <li>• <i>What do you think are double standards in STEM?</i></li> <li>• <i>What can women do when they experience a double standard?</i></li> </ul>

continued

SESSION 3	<b>BLISS: Live It! Give It! Journey Adult Guide</b>	<b>Power It Up</b>	<b>Add an Engineering Focus</b>
<p><b>Activity 2:</b> <b>The Power of Media + Gradvertisement</b> About 20 minutes</p>	<p>p. 49, Do <i>Power of the Media</i> Girls take a critical eye to media messages and analyze how women are communicated to and portrayed.</p>	<p>p. 32, Do <i>Gradvertisement</i> Girls create an empowering poster that advertises an electrical engineering major at college. By doing this, they discover the important role that the media plays in our perception about STEM.</p>	<p><b>BEFORE GIRLS DO POWER OF THE MEDIA</b> <b>DO</b> Have girls look for how STEM professions and interests are portrayed in the media. <b>ASK</b></p> <ul style="list-style-type: none"> <li>• <i>Are any women in STEM featured? If so, how?</i></li> <li>• <i>What STEM images would you like to see in the media?</i></li> <li>• <i>How will you portray the benefits for women going into engineering?</i></li> <li>• <i>What kind of images would be inspiring to you?</i></li> </ul> <p><b>AFTER GRADVERTISEMENT</b> <b>ASK</b></p> <ul style="list-style-type: none"> <li>• <i>Did any of the steps in the engineering design process help you create your ad?</i></li> </ul>
<p><b>Closing Ceremony: Career Card</b> About 15 minutes</p>	<p>No matching activity</p>	<p>p. 56, Share <i>Career Card</i>, Toy Designer Janese Swanson</p>	<p><b>FOR CAREER CARD</b> <b>DO</b> Share the profile of Toy Designer Janese Swanson in <i>Power It Up</i>. <b>ASK</b></p> <ul style="list-style-type: none"> <li>• <i>As we explore your dreams and help others to achieve theirs, how has Janese's story inspired you?</i></li> <li>• <i>What is Janese hoping to achieve as a toy designer?</i></li> <li>• <i>What might appeal to you about exploring a career in toy design?</i></li> </ul>

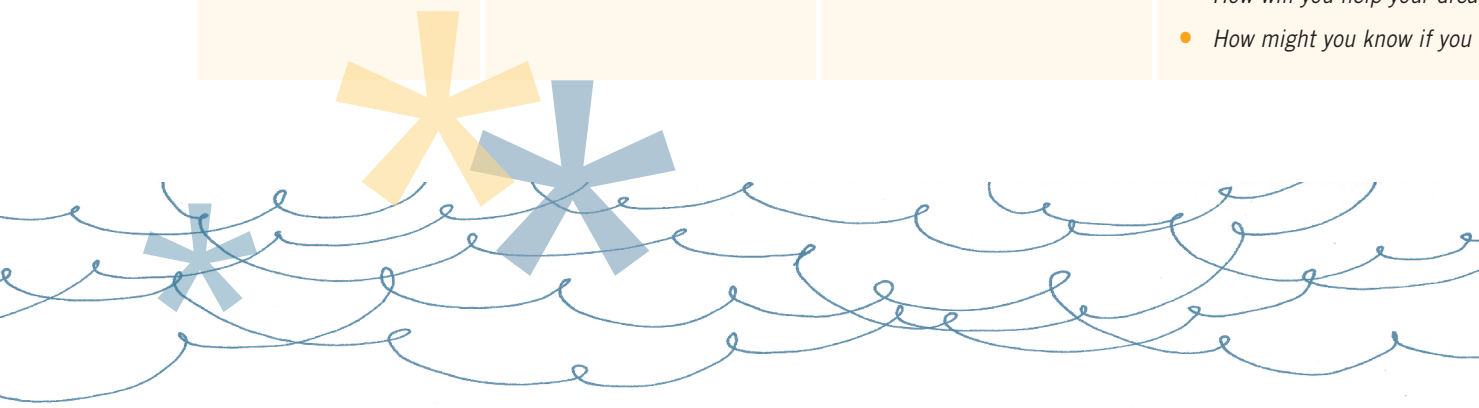


SESSION 4	<b>BLISS: Live It! Give It! Journey Adult Guide</b>	<b>Power It Up</b>	<b>Add an Engineering Focus</b>
<p><b>Opening Ceremony: Dream Questions, Dream Answers</b></p> <p>About 10 minutes</p>	<p>p. 55, Do <i>Dream Questions, Dream Answers</i></p> <p>Girls start defining their dreams by answering questions posed by others in a ball toss.</p>	<p>No matching activity</p>	<p><b>BEFORE GIRLS DO DREAM QUESTIONS, DREAM ANSWERS</b></p> <p><b>DO</b></p> <p>Invite girls to ask one another engineering design process questions about their dreams. For example:</p> <ul style="list-style-type: none"> <li>• Who will help you <b>brainstorm</b> your dream?</li> <li>• How will you <b>test</b> it?</li> <li>• When will you <b>share</b> it with others?</li> </ul>
<p><b>Activity 1: Dreams on a Wire</b></p> <p>About 20 minutes</p>	<p>p. 56, Do <i>Dreams on a Wire</i></p> <p>Girls seal their dreams in an envelope to post on a wire, and then find it. They explore how it feels to reach a dream or lose a dream.</p>	<p>No matching activity</p>	<p><b>BEFORE GIRLS DO DREAMS ON A WIRE</b></p> <p><b>SAY</b> You will write your dream down on paper, seal it in an envelope, and then search for it. Now is a good time to use the EDP steps to help you locate your dream envelope. <b>Brainstorm</b> ways you might find your envelope. <b>Choose</b> a strategy. <b>Test</b> your strategy to see whether it worked. If necessary, <b>redesign</b> your approach.</p>
<p><b>Activity 2: Random Acts of Inspiration</b></p> <p>About 15 minutes</p> <p><b>+ Practice Soldering</b></p> <p>About 1 hour</p>	<p>p. 57, Do <i>Random Acts of Inspiration</i></p> <p>Girls create something and leave it behind as a gift for strangers to find. They explore how to connect dreamers to dreams.</p>	<p>pp. 36–40, Do <i>Practice Soldering</i></p>	<p><b>AFTER GIRLS DO RANDOM ACTS OF INSPIRATION</b></p> <p><b>SAY</b> You've just found a way to connect dreamers to dreams by leaving inspiring notes or objects around places. You are the connection and inspiration in the same way solder helps connect components on a circuit board. Without that connection and inspiration, neither electricity nor bliss can flow!</p> <p><b>BEFORE GIRLS DO PRACTICE SOLDERING</b></p> <p><b>DO</b> Keep it safe—review with girls Soldering Safety on pp. 38–39 of <i>Power It Up</i>.</p>

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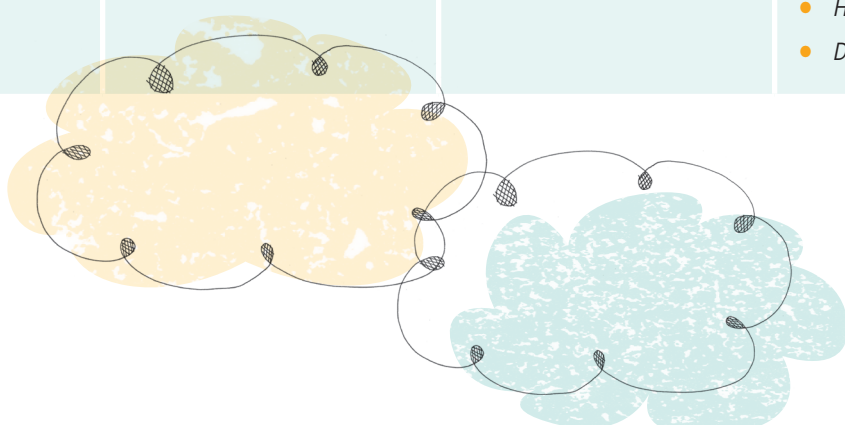


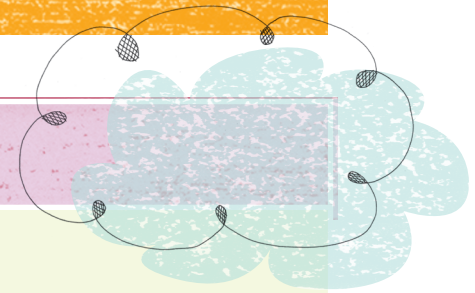
SESSION 4	<b>BLISS: Live It! Give It! Journey Adult Guide</b>	<b>Power It Up</b>	<b>Add an Engineering Focus</b>
<p><b>Activity 2:</b> (continued) <b>Random Acts of Inspiration</b> <b>+ Practice Soldering</b></p> <p>NOTE TO VOLUNTEERS If you do not have time to do <i>Practice Soldering</i>, ask girls if they are interested enough in doing it in a separate session. Girls will need to know how to solder in order to complete the Electric Game Board activity in Sessions 6–8.</p>	<p>(continued) p. 57, Do <i>Random Acts of Inspiration</i></p>	<p>(continued) pp. 36–40, Do <i>Practice Soldering</i></p>	<p><b>ASK</b> (continued)</p> <ul style="list-style-type: none"> <li>• Why do components need to be connected on a circuit board?</li> <li>• Why use solder and not tape?</li> <li>• What kinds of objects have circuit boards?</li> </ul> <p><b>AFTER GIRLS DO PRACTICE SOLDERING</b></p> <p><b>SAY</b> <i>Dreaming is all about taking risks and trying new things—which is what you just did.</i></p> <p><b>ASK</b></p> <ul style="list-style-type: none"> <li>• How did you feel before soldering for the first time? Scared? Nervous? Excited?</li> <li>• How do you feel now?</li> </ul>
<p><b>Closing Ceremony: Starting to Seek and Select Dreamers</b></p> <p>About 10 minutes</p>	<p>p. 59, Do <i>Starting to Seek and Select Dreamers</i></p> <p>Girls are thinking about how to find girls or women to help pursue their dream. This is part of Step 2 to earning their Dream Maker award.</p>	<p>No matching activity</p>	<p><b>BEFORE GIRLS DO STARTING TO SEEK AND SELECT DREAMERS</b></p> <p><b>DO</b> Encourage girls to look for women or girls with STEM dreams. Ask them to use the EDP to create their plans.</p> <p><b>ASK</b></p> <ul style="list-style-type: none"> <li>• How will you create your plans and <b>identify</b> your dreamers?</li> <li>• What ways can you <b>brainstorm</b> to contact and connect with them?</li> <li>• How will you help your dreamers <b>choose</b> their dreams?</li> <li>• How might you know if you need to <b>redesign</b> your approach?</li> </ul>



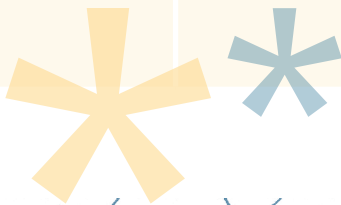
SESSION 5	<b>BLISS: Live It! Give It!</b> Journey Adult Guide	<b>Power It Up</b>	<b>Add an Engineering Focus</b>
<b>Opening Ceremony:</b> <b>Passion Statement</b> About 10 minutes	p. 60, Do <i>Passion Statement</i> Girls share what they feel passionate about right now in their lives, then make the link to a dream they have in the future.	No matching activity	<b>BEFORE GIRLS DO PASSION STATEMENT</b> <b>DO</b> Have girls think of a passion statement and how a STEM career could help them pursue it. For example, the passion may be “I want to plant my own garden,” so the future dream may be “I want to become a botanist or a landscape architect.”
<b>Activity 1:</b> <b>Tilt Lantern</b> About 70 minutes  <b>NOTE TO VOLUNTEERS</b> If you do not have time to do <i>Tilt Lantern</i> , ask the girls whether they are interested enough in doing it in a separate session. The lantern can also be soldered to practice those new soldering skills.	No matching activity	p. 28, Do <i>Tilt Lantern</i> Girls connect components to make a circuit with a gravity-activated switch.	<b>BEFORE GIRLS DO TILT LANTERN</b> <b>SAY</b> <i>One tip for finding your passion is to seek out new experiences. Today we'll try out your new electrical engineering skills by creating a Tilt Lantern to light up the path to your dreams.</i> <b>DO</b> Encourage girls to decorate the lantern, perhaps collage it with dreams and then present it to their dreamer at the <i>BLISS</i> bash.  <b>AFTER TILT LANTERN</b> <b>SAY</b> <i>Dreamers don't always have the right answers, but they use their resources, creativity, and the EDP to find their path.</i> <b>ASK</b> <ul style="list-style-type: none"> <li>● <i>How did you use the EDP to create your lantern?</i></li> <li>● <i>Did you hypothesize how you thought the lantern would work?</i></li> </ul>

continued



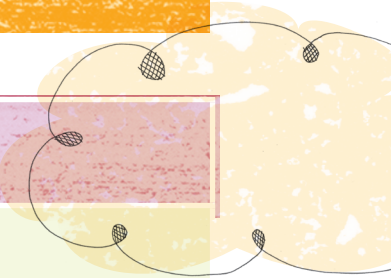


SESSION 5	<b>BLISS: Live It! Give It! Journey Adult Guide</b>	<b>Power It Up</b>	<b>Add an Engineering Focus</b>
<p><b>Activity 2:</b> <b>Let's Make a Deal!</b> About 20 minutes</p>	<p>p. 63, Do <i>Let's Make a Deal</i> Girls learn how to negotiate salaries.</p>	<p>No matching activity</p>	<p><b>AFTER GIRLS DO <i>LET'S MAKE A DEAL</i></b></p> <p><b>ASK</b></p> <ul style="list-style-type: none"> <li>• <i>How do you think research helps when it comes to finding a job in engineering?</i></li> <li>• <i>How does the information on the Power It Up career cards act as a source for learning more about job opportunities?</i></li> <li>• <i>How can you apply some of the tips you learned to STEM teamwork?</i> Example response: "I would be a good listener and read body language when working with other scientists who might have different values."</li> </ul>
<p><b>Closing Ceremony:</b> <b>Putting Passion Busters in Their Place</b> About 20 minutes</p>	<p>p. 65, Do <i>Putting Passion Busters in Their Place</i> Girls examine the people and situations that discourage dreams and explore how to rise above them.</p>	<p>No matching activity</p>	<p><b>BEFORE GIRLS DO <i>PUTTING PASSION BUSTERS IN THEIR PLACE</i></b></p> <p><b>SAY</b> <i>Without passion, you wouldn't be able to power your dreams! Think of your passion as the batteries and passion busters as the switch: It can close off the flow of passion.</i></p> <p><b>ASK</b></p> <ul style="list-style-type: none"> <li>• <i>Can you identify the obstacles to achieving your dreams?</i></li> </ul> <p><b>AFTER <i>PUTTING PASSION BUSTERS IN THEIR PLACE</i></b></p> <p><b>ASK</b></p> <ul style="list-style-type: none"> <li>• <i>How could passion busters threaten the dreams of women working in STEM careers?</i></li> <li>• <i>What could you do to help?</i></li> </ul>



SESSIONS 6, 7, 8	<i>BLISS: Live It! Give It!</i> Journey Adult Guide	<i>Power It Up</i>	Add an Engineering Focus
<p>NOTE TO VOLUNTEERS Sessions 6–8 are combined in your <i>BLISS</i> Adult Guide but can be held as three separate sessions. We show how you can hold three sessions with the engineering add-ons, too.</p> <p><b>Opening Ceremony:</b> <i>Stepping Toward a Goal</i></p> <p>About 15 minutes</p>	<p>p. 67, Do <i>Stepping Toward a Goal</i></p> <p>Girls think about the last time they set a goal and how they accomplished it. Girls figure out how setting goals can play into making a dream come true.</p>	<p>No matching activity</p>	<p><b>AFTER GIRLS DO STEPPING TOWARD A GOAL</b></p> <p><b>SAY</b> <i>You are learning that to achieve a dream, you need to set goals. To meet your goals, you need to be focused. You also need to be flexible and able to switch gears along the way. Sometimes achieving a dream means learning how to take a skill to the highest level. For example, you might think you're not good in math or science, but it takes time and practice to master any skill.</i></p> <p><b>ASK</b></p> <ul style="list-style-type: none"> <li>• <i>What are some things you need to do to master a skill? Example responses: "Schedule the time to practice and stick to it." "Be realistic about your goals." "Write your goals down and read them regularly." "Seek out role models who inspire."</i></li> <li>• <i>How could you use the engineering design process to determine a goal and reach it?</i></li> </ul>
<p><b>Activity 1:</b> <i>Electric Game Board</i></p> <p>About 3 hours</p> <p>NOTE TO VOLUNTEERS You can spread this activity into three sessions this way:</p> <p>Session 6 Girls plan their board.</p> <p>Session 7 Girls construct their board and solder it.</p> <p>Session 8 Girls decorate it.</p>	<p>No matching activity</p>	<p>p. 41, Do <i>Electric Game Board</i> (Soldering)</p> <p>Girls design and create their own version of the Operation game board.</p>	<p><b>BEFORE GIRLS DO ELECTRIC GAME BOARD</b></p> <p><b>DO</b> Encourage girls to create an electric game board that reflects their STEM passion, dream, or future goal. For instance, a girl who wants to design rockets might create The Road to NASA game, where each of the three cups represents a step toward the goal. Or girls might create a game about their dreamer's dream to present to her at the <i>BLISS</i> bash.</p> <p><b>AFTER ELECTRIC GAME BOARD</b></p> <p><b>ASK</b></p> <ul style="list-style-type: none"> <li>• <i>What were the challenges you faced in this activity?</i></li> <li>• <i>How did you overcome those challenges?</i></li> <li>• <i>How do you think this relates to the paths dreamers take?</i></li> </ul>

continued



SESSIONS 6, 7, 8	<i>BLISS: Live It! Give It!</i> Journey Adult Guide	<i>Power It Up</i>	Add an Engineering Focus
<p><b>Activity 2:</b> <i>What's Your Label?</i></p> <p>About 20 minutes</p>	<p>p. 70, Do <i>What's Your Label?</i></p> <p>Girls come up with the labels they give themselves and others and how labels can help or hinder them as they try to achieve their dreams.</p>	<p>No matching activity</p>	<p><b>BEFORE GIRLS DO <i>WHAT'S YOUR LABEL</i></b></p> <p><b>ASK</b></p> <ul style="list-style-type: none"> <li>• <i>What labels do we apply to STEM? For example, saying science is nerdy or boring?</i></li> <li>• <i>How do negative STEM labels discourage girls from pursuing STEM?</i></li> <li>• <i>How can you change that?</i></li> </ul>
<p><b>Closing Ceremony:</b> <i>Career Cards</i></p> <p>About 20 minutes</p> <p>NOTE TO VOLUNTEERS There are three profiles to share for <i>Career Cards</i>. If you plan to break into three sessions, do one for each session.</p>	<p>No matching activity</p>	<p>p. 57–59, Share <i>Career Cards</i>, Software Engineer Patty Legaspi, Mechanical Engineer Cecily Wiseman, and Materials Science Engineer Joanna Bettinger.</p> <p>Ask girls what they can find out about the passions of these three engineers from their career cards.</p>	<p><b>BEFORE GIRLS DO <i>CAREER CARDS</i></b></p> <p><b>DO</b> Invite girls to draw three clouds, big enough to write words inside. Have girls fill in each cloud this way:</p> <p><b>What I Love.</b> <i>What are your passions or hobbies?</i></p> <p><b>What I Do Well.</b> <i>In what things have you excelled, won awards, and been encouraged to pursue?</i></p> <p><b>How I Spend My Time.</b> <i>Have you chosen activities, such as volunteering or belonging to a club, that relate to what you love or do well?</i></p> <p><b>ASK</b></p> <ul style="list-style-type: none"> <li>• <i>Did this “cloud mapping” help you come closer to identifying your dream job? (Remind girls that “identify” is the first step in the EDP.)</i></li> <li>• <i>What are next steps you can take to advance your passions and talents?</i></li> </ul>





## SESSIONS 6, 7, 8

## BLISS: Live It! Give It! Journey Adult Guide

## Power It Up

## Add an Engineering Focus

**Closing Ceremony:  
Career Cards** (continued)

(continued)  
No matching activity

(continued)  
p. 57–59, Share *Career Cards*, Software Engineer Patty Legaspi, Mechanical Engineer Cecily Wiseman, and Materials Science Engineer Joanna Bettinger

**For Session 6** (continued)  
Share the profile of Software Engineer Patty Legaspi in *Power It Up*.

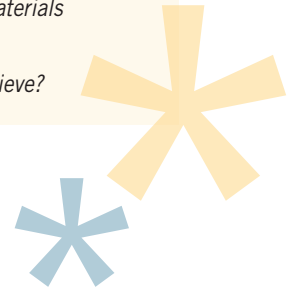
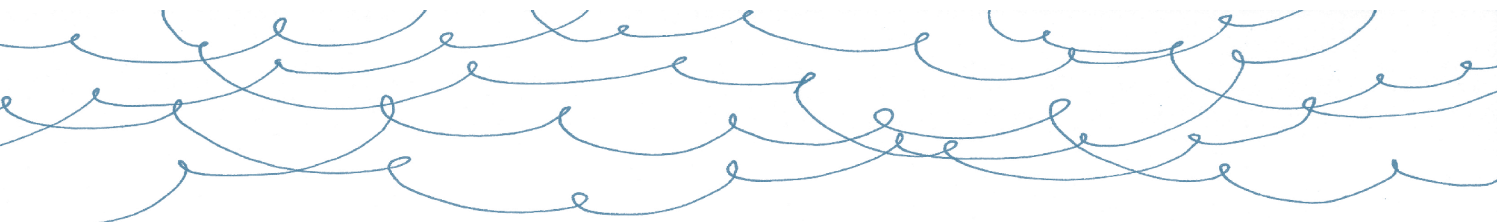
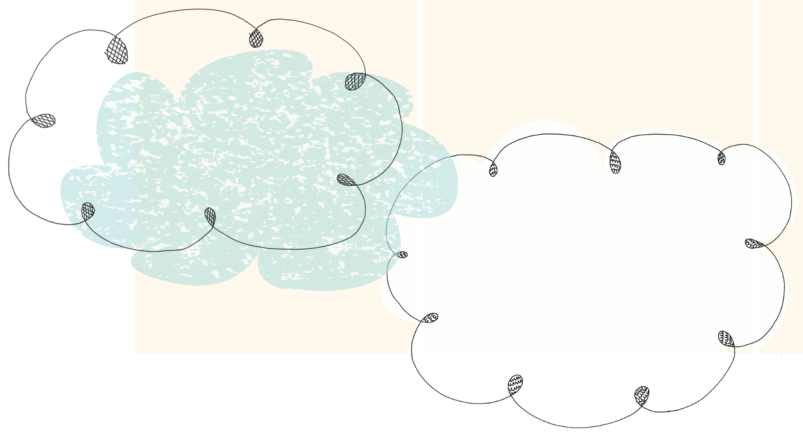
- ASK**
- *What might Patty achieve as a software engineer?*
  - *What might appeal to you about exploring a career in software engineering?*
  - *What dreams can a software engineer help achieve?*

**For Session 7**  
Share the profile of Mechanical Engineer Cecily Wiseman in *Power It Up*.

- ASK**
- *What might Cecily achieve as a mechanical engineer?*
  - *What might appeal to you about exploring a career in mechanical engineering?*
  - *What dreams can a mechanical engineer help achieve?*

**For Session 8**  
Share the profile of Materials Science Engineer Joanna Bettinger in *Power It Up*.

- ASK**
- *What might Joanna achieve as a materials science engineer?*
  - *What might appeal to you about exploring a career in materials science engineering?*
  - *What dreams can a materials science engineer help achieve?*



SESSION 9	<b>BLISS: Live It! Give It! Journey Adult Guide</b>	<b>Power It Up</b>	<b>Add an Engineering Focus</b>
<p><b>Opening Ceremony: Many Dreams, Many Paths, One Step Forward</b></p> <p>About 5 minutes</p>	<p>p. 74, Do <i>Many Dreams, Many Paths, One Step Forward</i></p> <p>Girls talk about the last time they set an important goal and the process they took to accomplish it.</p>	<p>No matching activity</p>	<p><b>AFTER GIRLS DO OPENING CEREMONY</b></p> <p><b>ASK</b></p> <ul style="list-style-type: none"> <li>• <i>If your goal is to help people, what career would you choose?</i></li> <li>• <i>How do scientists and engineers help people?</i></li> </ul>
<p><b>Activity 1: Moving the Dreamer Forward</b></p> <p>About 15 minutes</p>	<p>p. 75, Do <i>Moving the Dreamer Forward</i></p> <p>Girls troubleshoot their dream projects by sharing the hurdles they're facing and coming up with solutions as a team.</p>	<p>No matching activity</p>	<p><b>AFTER GIRLS DO MOVING THE DREAMER FORWARD</b></p> <p><b>ASK</b></p> <p><i>Think about how you used the <b>test</b>, <b>show</b>, and <b>redesign</b> steps in the engineering design process to move your dreamers through their plan.</i></p> <ul style="list-style-type: none"> <li>• <i>What do engineers do when something doesn't work?</i></li> <li>• <i>What can you try differently in your journey?</i></li> </ul>
<p><b>Activity 2: Planning the BLISS Bash</b></p> <p>About 20 minutes</p>	<p>p. 78, Do <i>Planning the BLISS Bash</i></p>	<p>No matching activity</p>	<p><b>BEFORE GIRLS DO PLANNING THE BLISS BASH</b></p> <p><b>DO</b> Encourage girls to invite any STEM role models who helped them along the way. Remind them to bring their projects, especially their Electric Game Boards and Tilt Lanterns to show and share.</p>
<p><b>Closing Ceremony: Your Career Card</b></p> <p>About 20 minutes</p>	<p>No matching activity</p>	<p>p. 50, Do <i>Your Career Card</i></p> <p>Girls think about their future STEM dreams and create a career card about themselves.</p>	<p><b>AFTER GIRLS DO YOUR CAREER CARD</b></p> <p><b>DO</b> Let girls know that every career has an engineering element, from the supplies and tool used in work to the problem-solving process of the EDP and its use in everyday life.</p> <p><b>ASK</b></p> <ul style="list-style-type: none"> <li>• <i>How does STEM fit into your chosen career?</i></li> <li>• <i>How does STEM fit into your dreams?</i></li> </ul>

SESSION 10	<b>BLISS: Live It! Give It!</b> Journey Adult Guide	<b>Power It Up</b>	<b>Add an Engineering Focus</b>
<p><b>Opening Ceremony:</b> <i>Ambassadors' Choice</i></p> <p>About 15 minutes</p>	<p>p. 82, Do <i>Ambassadors' Choice</i></p> <p>Girls reflect on their journey in a way they create.</p>	<p>No matching activity</p>	<p><b>AFTER GIRLS DO AMBASSADORS' CHOICE</b></p> <p><b>ASK</b></p> <ul style="list-style-type: none"> <li>How did you use steps from the engineering design process to come up with a plan for your opening ceremony?</li> </ul>
<p><b>Activity 1:</b> <i>And Now Presenting</i></p> <p>About 30 minutes</p>	<p>p. 83, Do <i>And Now Presenting</i></p> <p>Girls might talk to their guests about how they earned their awards and introduce their "adopted" dreamers.</p>	<p>No matching activity</p>	<p><b>BEFORE GIRLS DO AND NOW PRESENTING</b></p> <p><b>DO</b> Encourage girls to share with their audience each step of the engineering design process and describe how it helped in achieving their dreams.</p> <p><b>ASK</b></p> <ul style="list-style-type: none"> <li>Where else in your life do you use or encounter the engineering design process? Example responses: "Writing an essay." "Choosing something to wear or purchase." "Asking permission for something."</li> </ul>
<p><b>Closing Ceremony</b></p> <p>About 20 minutes</p>	<p>p. 84, Do <i>Closing Ceremony</i></p> <p>Girls are asked to define bliss and then encouraged to reach for the stars. Consider scheduling star gazing on a camping trip with a local STEM role model!</p>	<p>No matching activity</p>	<p><b>BEFORE GIRLS DO CLOSING CEREMONY</b></p> <p><b>SAY</b> <i>Throughout this Journey, you explored engineering careers, explored your STEM dreams, and found ways to use the engineering design process steps.</i></p> <p><b>ASK</b></p> <ul style="list-style-type: none"> <li>What was the most valuable thing you learned?</li> <li>How will you use this in your future?</li> </ul> <p><b>AFTER CLOSING CEREMONY</b></p> <ul style="list-style-type: none"> <li>Why do we need more STEM dreamers?</li> <li>How will women in STEM help our global bliss?</li> </ul>



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