



## Making Space for Girls Challenge



**Space Day Event – International Observe the Moon day/ Girls in Aviation Day (September 26, 2020) - - <https://moon.nasa.gov/observe-the-moon-night/>**

**WHO Is This For:** The community event coordinator, troop leader and older girls – anyone who wants to do more than invite a friend. Those volunteers and girls who want to share their passion.

**WHAT:** The **Making Space for Girls** challenge presented by Spacekids Global in partnership with Girl Scouts of Citrus council is a unique opportunity to ENGAGE and CONNECT with girls and adults.

When parents, teachers, girls and community leaders think Girl Scouts they think cookies – we want them to think empowerment AND that girls can do anything. Virtually every woman astronaut has been a Girl Scout. The Girl Scout program has 127 for girls grade K-12 (about 20 per program level) STEM badges and even more local and national opportunities for STEM programs, clubs, troops, events and camps.

**WHERE:** This program can be delivered in person outside, inside or online. With minimal materials and some excitement.

**WHEN:** Lead the program now – deadline to enter the 2021 launch program is **October 22, 2020**. By registering today for the program even if you don't get your artwork, essay or scientific idea submitted you will get unique access to weekly trivia, guest presentations like meet an astronaut, videos and learn from Girl Scouts of all ages why they love Girl Scouts.

**WHY:** This full STEAM program is design K-12 - - what girl wouldn't want a chance to send her ideas to space.

**HOW:** Host an event locally, connect with our national virtual programs, register individually through an online registration portal or by emailing the PDF registration form to [gsinspace@citrus-org](mailto:gsinspace@citrus-org)

## Implementation

**Make sure you are following your council's current COVID-19 safety precautions and ratios.**

- Decide which of the **Making Space for Girls** challenges you want to include – or all 3.
- Have program registration forms for the families to fill out - -you can collect and email them to us or they can fill out the form online. If they are not a current Girl Scouts and are joining – note that in the “troop number” section
- We have event registration form if individual forms don't work for everyone
- Include moon day activities
- Include resources specific to your council – does your council have a robotics program, science program, astronomy club, and STEM focused programs or camps?

If holding the event outside – bring clipboards or writing surfaces for the girls to create their own mission patch, writing their story/idea. *(we encourage local and small business support – however, use your resources wisely – Amazon Prime can get you 8 1/2x11 clipboards for \$1.00 each when you order 24 or more. So ask, negotiate – make sure they know why you want a deal)*

\*\*\*\*This is a great opportunity to give each girl their own clipboard they could personalize and take with them. We love stickers. – *Again great space sticker pack on amazon for \$4.00 for 50 big stickers.*

Have stations with different girls and adults – get older girls in your community involved – ask for girls who like to draw, tell stories and lead experiments. Older girls are a perfect recruiting tool – stations can include:

**Station Ideas – Think about the number of girls and volunteers at your event.**

**Limit the number of girls per activity to no more than 4.** *Remember any spacing restrictions you might have – Girls can bring their own beach blanket/yoga mat to help them with spacing.*

1. Mission Patch design – activity attached (you will need art materials)
2. My Space Dreams – teach girls about storytelling – how and what to include- Write an essay or story sharing your ideas and dreams about what you believe space travel and space exploration will be like in the future and why you might like to go to space or have a career in space science.
3. Girl Scouts in Space Experiment Idea Challenge: Put your curiosity cap on and think of a “what if” idea about how something might behave differently in space than it does on earth. – This does NOT need to be a full blown experiment – just your idea
  - What is a faraday box – balloons and static electricity
  - What is an ISS student experiment – **did you know we are the first program allowed to include elementary and middle school girls in this opportunity.** Thanks to ProxOps who will actually create the experiment(s) and put them in the faraday box for us.
4. International observe the Moon day
  - a. activities – make different moon phases with oreos (use individual bags of mini oreos) <https://spaceplace.nasa.gov/oreo-moon/en/>
  - b. NASA activities - <https://moon.nasa.gov/observe-the-moon-night/resources/activities/>
5. Paper airplane making and flight distance – look at the Brownie Fling Flyer badge
6. Various activities from the GSUSA Engineering badges and journeys
7. NASA Calendar Coloring contest - <https://www.nasa.gov/feature/commercial-crew-calendar-artwork>
8. GSUSA Citizen Scientist Journey using NASA Globe Explorer app
9. Information / activities from council clubs/teams/groups/camps
10. National Park service – Night Explorer Junior Ranger Program - <https://www.nps.gov/subjects/nightskies/juniorrangernight.htm>





# Making Space for Girls

## Mission Patch Design Challenge



<http://gsinspace.allthingsgirlscouts.com/>

**#MS4G**

### Background Information

A space mission requires hundreds (sometimes thousands) of people working together in a variety of jobs. The team has construction workers, truck drivers, spacecraft designers, engineers, communications specialists, computer programmers, scientists, scuba divers, educators and astronauts who work together to create a successful mission.

One of the things that holds this group together is a well-defined understanding of the mission goals and objectives. They are proud to be part of the team. The mission patch is the team “logo” or troop crest.

The mission patch is the picture of their common goal. Each mission patch is one of a kind and is frequently designed by those involved in the mission.

### Suggested Materials

- Patch design form – Mission Patches are 3 inches
- Make sure there is a surface to write/draw on – table, clipboard, book
- Mission Patch design components idea list
- Visit the mission patch examples on the NASA website
- Materials for design - pens, crayons, markers, computer/tablet, etc.

### Preparation

1. Register the girls in your troop as soon as you know you are wanting to do the program. Use the troop registration form and submit to [gsinspace@citrus-gs.org](mailto:gsinspace@citrus-gs.org) – special announcements and activities will happen between now and December 2021. The submission deadline is 10/22/2020 – launch is summer 2021 and return is December 2021.
2. All girls who submit any category project will get a free mission patch and certificate.
3. Make sure that the girls have access to the Patch Submission Form, Mission Patch design components list and Mission Patch Examples
4. For more information about NASA mission patches and examples [https://www.hq.nasa.gov/office/pao/History/mission\\_patches.html](https://www.hq.nasa.gov/office/pao/History/mission_patches.html)  
*or have girls access this site prior to the activity.*

### Introduction/opening/discussion:

Hundreds, sometimes thousands, of people work on a NASA space mission. Every one of those people proudly wears the mission patch on T-shirts, hats, jackets, flight suits, or spacesuits (depending on their mission-related job).

- Have you noticed in pictures that the astronauts all wear a special mission patch in addition to their NASA patches?
- Have you seen photographs of the Apollo astronauts wearing their distinctive patches? Or those Space Shuttle and ISS astronauts?
- Each space mission, whether it is a human mission or a robotic planetary mission, has its own special mission patch.
- Who designs these mission patches? Usually, it is the people involved in the mission.
- The patch represents the team and the mission – think of it as their logo or troop crest.
- If you had the opportunity to work on a NASA mission, what type of mission would you want to experience? What type of patch would you design?

**Now it is your turn to design your mission and the patch as part of the Making Space for Girls Challenge.**

### **Steps to help you get started**

1. Distribute supplies
2. Choose your mission type from the checklist – or make up your own
3. After choosing mission type, mission goal, science objectives, and mission name, design your patch. Look at different patches online that were designed and used in previous human and robotic missions.
4. Each girl should sketch/color their patch. The patch design can be drawn, colored, digitally designed or painted, but it could also be done in another medium such as paper collage, mosaic or clay. A jpeg of the design needs to be created – it can be a photo on your phone. The girls can also choose to submit a design as a troop or group. Take pictures of the girls completing the activity – with caregiver permission post or share on social media – don't forget hashtag - **#MS4G**
5. The completed mission patch is entered into the Making Space for Girls Challenge. Use the individual, troop or event registration form. Submit registration form as soon as possible so that when special opportunities are announced – you are registered. **Registration form and submission form are due no later than 10/22/2020.** By emailing the jpg to [gsinspace@citrus-gs.org](mailto:gsinspace@citrus-gs.org) or uploading on the website under submission form - <http://gsinspace.allthingsgirlscouts.com/>

### **Closing**

- For the girls who want to share – give them an opportunity to share why they included the different elements in their patch.
- **Discuss the other 2 parts of the Making Space for Girls Challenge – The essay and what if science experiment.**
- Do they want to finish the program level Space Scientist badge?
- Female astronaut poster image
- [https://www.nasa.gov/centers/glenn/images/content/721862main\\_GirlScoutAstronautshires.jpg](https://www.nasa.gov/centers/glenn/images/content/721862main_GirlScoutAstronautshires.jpg)

# Mission Patch design components and ideas

*THIS IS ONLY IDEAS – NONE of these have to be in your patch design*

[https://www.hq.nasa.gov/office/pao/History/mission\\_patches.html](https://www.hq.nasa.gov/office/pao/History/mission_patches.html)

Where are you going?

- Moon
- International Space Station
- Mars
- Other

What are you doing when you get there?

- Scientific observation
- Collecting sample
- Setting up habitat

Scientific objective

- Geology of surface
- Composition of atmosphere
- Search for life, water
- Other

Other possible design elements

- Spacecraft
- Destination
- GS logo
- Flag
- #MS4G

Shape

- Round
- Oval
- Square
- Rectangle
- Triangle – point up or down



# Making Space for Girls Challenge Submission Form

## Mission Patch Design Challenge:

- Draw your patch artwork/design in the **box provided** or **submit a JPEG with this registration form**.
- Keep in mind that the image you create will need to eventually fit onto a 2 to 4-inch patch, so too much detail may be difficult to scale to size.
- *Email design to [gsinspace@citrus-gs.org](mailto:gsinspace@citrus-gs.org)*

Name:

Grade:

Parent/Guardian Signature:

Email Design: [gsinspace@citrus-gs.org](mailto:gsinspace@citrus-gs.org)

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# Making Space for Girls

Program Registration Form



Please complete this registration and consent form with the most accurate information. Once completed, please send to [gsinspace@citrus-gs.org](mailto:gsinspace@citrus-gs.org) as soon as possible.

**Important: Please provide the best contact email for program material and communication delivery.**

Girl Scout Full Name:	
Girl Scout Troop Number (If applicable):	
Girl Scout Council:	
Girl Scout Grade:	
Girl Scout Email:	
Caregiver Full Name:	

Please select the category you would like to participate in (you can choose more than one): Please refer to website for more detailed information.

1. Making Space for Girls Mission Patch: proposed patch artwork/design
2. My Space Dreams: write an essay on what you believe space and space travel will be like in 10 to 20 years, when it may be your turn to go!
3. Girls Scouts in Space: proposed ideas for an experiment to send to the International Space Station (ISS) in a Faraday Box provided and managed by ProxOps.

**Your selected program template and further information will be sent to the email provided above. Once received, follow all instructions for program submission. Deadline is 10/22/2020**

We are ready to go to Space!

Just one more important item is needed. Please see the consent form below. Have your parents complete the consent form and send with your registration form.

### Consent Form

I hereby give consent for my Girl Scout to participate in the special program – Making Space for Girls.

Parent/Guardian Signature: \_\_\_\_\_

Parent/Guardian Email: \_\_\_\_\_

Parent/Guardian Phone: \_\_\_\_\_

<http://gsinspace.allthingsgirlscouts.com/>

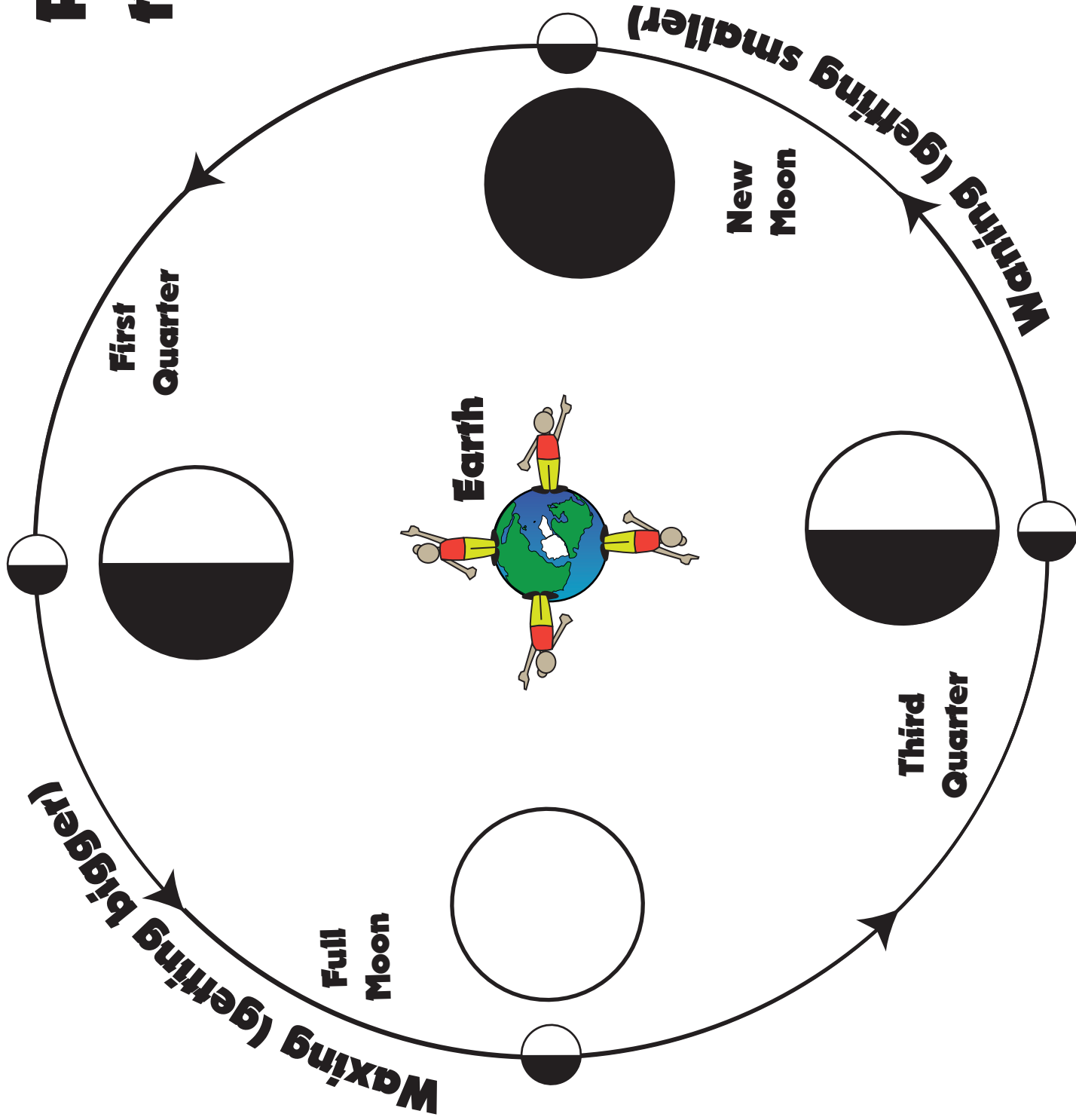
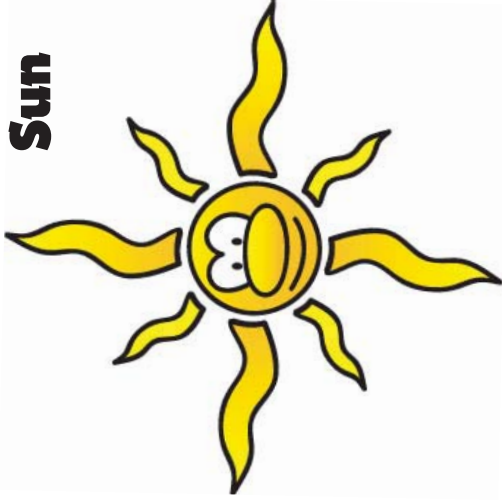
**#MS4G**







# Phases of the Moon





# Making Space for Girls Challenge Submission Form

## Girl Scouts in Space Experiment Idea Challenge:

- Put your curiosity cap on and think of a “what if” idea about how something might behave differently in space than it does on earth.
- Examples of other student experiments that have gone to the ISS can be found on the internet to fuel your ideas.
- Use this template to share your idea and the materials you believe will be needed to test your idea in space.
- Keep in mind: the idea chosen will travel to the ISS and be maintained in a Faraday Box, which is about the size of an average shoe box. *More Information is on the website.*

**Idea:**

**Materials Needed:**

Name:

Grade:

Parent/Guardian Signature:

**Submit through website or email: [gsinspace@citrus-gs.org](mailto:gsinspace@citrus-gs.org)**

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<http://gsinspace.allthingsgirlscouts.com/>



# Making Space for Girls Challenge Submission Form

**Grade K-3**

**My Space Dreams Essay Challenge:**

- Write a 75 to 150-word essay or story
- share your ideas and dreams about what you believe space travel and space exploration will be like in the future and
- why you might like to go to space or have a career in space science.

**Essay:**

Name:

Grade:

Parent/Guardian Signature:

**Email: [gsinspace@citrus-gs.org](mailto:gsinspace@citrus-gs.org)**

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# Making Space for Girls Challenge Submission Form

**Grade 4-5**

**My Space Dreams Essay Challenge:**

- Write a 150 to 300-word essay or story
- share your ideas and dreams about what you believe space travel and space exploration will be like in the future and
- why you might like to go to space or have a career in space science.

**Essay:**

Name:

Grade:

Parent/Guardian Signature:

**Email: [gsinspace@citrus-gs.org](mailto:gsinspace@citrus-gs.org)**

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# Making Space for Girls Challenge Submission Form

**Grade 6-12**

**My Space Dreams Essay Challenge:**

- Write a 300 to 800-word essay or story
- share your ideas and dreams about what you believe space travel and space exploration will be like in the future and
- why you might like to go to space or have a career in space science.

**Essay:**

Name:

Grade:

Parent/Guardian Signature:

**Email: [gsinspace@citrus-gs.org](mailto:gsinspace@citrus-gs.org)**

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