



The Girl Scouts Guide to Night Hikes and Full Moons



Welcome, Girl Scouts!

Night Hikes are a favorite activity at Girl Scouts of the Chesapeake Bay. There's always an unexplainable magic at camp, but the feeling of venturing out into the outdoors while everyone else is tucking in is truly something special! This guide can be used by volunteers who are planning a night hike for their troop or group, or by individual Girl Scouts. If you are participating as an individual, please take care to NEVER go on a night hike (or a day hike!) alone. Learn about the full moon each month with fun activities. All Girl Scouts and volunteers should follow our guidelines for staying safe on the trails below.

1. Know the trail you will take. The trail may look different at night, so make sure you're familiar with the way.
2. Every hiker should bring a flashlight, lantern or head lamp.
3. Use bug spray, wear a hat, tuck your pants into your boots and wear closed-toed shoes or hiking boots.
4. Give each hiker a glow stick. If they have a question or need assistance during the hike, teach them to raise the glow stick high. Practice at the trailhead before the hike.
5. Adults should be dispersed in the front, middle and back of the group.
6. Take a headcount of hikers, and check to make sure everyone is accounted for multiple times throughout the hike.
7. Pack water and first aid supplies.



Sandwich Cookie Moon Phases Activity

As you plan for your night hike, make sure your familiar with the phases of the moon. On your hike, stop in a safe spot and look up. See if you can tell which phase the moon is in. Practice ahead of time with this fun activity.

What You'll Need:

- Sandwich cookies (approximately 8 for each Girl Scout, but make sure you have extras in case they break!)
- Scraping tool (A butter knife works well)

Gently break apart each sandwich cookie, aiming to keep the frosting inside intact. Look at a picture of each moon phase and gently scrape away the frosting to mimic the shape. Lay each phase in order of appearance. Then - enjoy a yummy treat!



New Moon



Waxing
Crescent



First Quarter



Waxing
Gibbous



Full Moon



Waning
Gibbous



Last Quarter



Waning
Crescent

When to catch the full moon?

The full moon will appear “full” to the eye for the entire night on the dates listed below. However, the approximate time indicates when the moon is exactly 180 degrees opposite the sun.



Date	Approximate Time (EST)
October 28th, 2023	4:24PM
November 27th, 2023	4:16AM
December 26th, 2023	7:33PM
January 25th, 2024	12:54PM
February 24th, 2024	7:30AM
March 25th, 2024	3:00AM
April 23rd, 2024	7:48PM
May 23rd, 2024	9:53AM
June 21st, 2024	9:07PM
July 21st, 2024	6:17AM
August 19th, 2024	2:25PM
September 17th, 2024	10:34PM

Hunter's Moon

October's full moon was named the "Hunter's Moon" because this time of year was important for gathering significant amounts of food to last the winter. Crops had already been harvested so wild game was easier to spot.



October

Galaxy Jar Activity

Wish you could hold the whole galaxy in the palm of your hand? These fun-to-make galaxy jars are the next best thing.

What You'll Need:

- Bag of cotton balls
- Mason Jar
- Acrylic paint (4 different colors)
- Silver glitter
- 4 disposable cups

1. Fill your disposable cups with water. Then, add 1-2 squirts of paint to each cup and mix up well.

2. Place 4-5 cotton balls in the bottom of the mason jar. Then, sprinkle glitter on top.

3. Slowly pour the first paint color over the cotton balls, just until they soak up the water. If you pour too much water, add a few more cotton balls to soak it up.

4. Repeat steps 2 & 3 for the other 3 paint colors.

5. Place the lid tightly on the jar.

6. Enjoy your galaxy in a jar!

Full Moon Fact:
Certain species of sea turtle wait for the full moon to lay their eggs. The tide is higher during the full moon, meaning the eggs will be taken further onto the shore.

Beaver Moon

November is said to be the best month for trapping beavers for their thick, winter-ready pelts, which is why the November full moon is named “Beaver Moon”. During this time, beavers begin to take shelter in their lodges.



November

Build a Beaver Dam Activity

Fur trappers and traders would travel far and wide every year to find beavers. They looked for signs like chewed logs or branches, footprints, and especially, beaver dams! Do you think you have what it takes to build a dam as good as a beaver's? Give it a try. Warning: this activity can get messy.

What You'll Need:

- A long, somewhat deep baking dish or plastic container
- Natural materials like mud, dirt, sticks, rocks, leaves, etc.
- Tools like shovels, trowels, buckets, etc.
- Water

1. Gather your materials. You can gather these materials on your hike, or right in your backyard.

2. Construct a dam in your container. Build it in the center, so you have empty space on either side.

3. Slowly pour a small amount of water into one side of the container.

4. Did the water break through your dam? If so, empty your container and try again.

*Some water may trickle through your dam. Even a beaver dam doesn't completely hold the water back, but your structure should be able to stay in place!

Full Moon Fact:
If you set a single green pea next to a United States nickel, it is a good comparison of the size of the moon compared to Earth. (Hint: the pea is the moon!)

Cold Moon

December is when the winter truly begins and frigid temperatures would start to creep in, earning it's full moon the name "Cold Moon". December's full moon has also been called the "Long Night Moon" because December's full moon shines above the horizon for a longer period than most full moons.



December

Winter Solstice Bird Feeder Ornaments

The winter solstice coincides with the December full moon. Many celebrate the winter solstice by decorating trees for holiday celebrations. Celebrate with your troop by making bird feeder ornaments and "decorating" some trees on your hike.

What You'll Need:

- 1/2 cup shortening, lard or bacon grease, softened
- Cookie cutters
- A straw
- Yarn or string
- 1 1/4 cup of bird seed

1. Mix the shortening and bird seed together.
2. Pack the mixture tightly into your cookie cutter, or a cupcake pan (if you don't want fun shapes).
3. Use the straw to poke a hole through the top.
4. Let the ornaments set outside in the cold, or in the refrigerator.
5. Gently remove the ornament from the cutter and thread the yarn through the hole.
6. Hang your ornament on a tree branch for birds to enjoy during the winter, when food is difficult for them to find.

Full Moon Fact:
The moon is the only celestial body beyond Earth - so far - visited by human beings.

Wolf Moon

The “Wolf Moon” typically represents the first full moon of winter, and is rumored to be named “wolf” because the wild canines are thought to howl more during the winter months, especially January. Additionally, the “Wolf Moon” is said to appear at the coldest part of winter, when wolves are often roaming in packs on the hunt for food.



January

Paper Plate Wolf Mask Activity

Make your own wolf pack and howl at the “Wolf Moon”!

What You’ll Need:

- Paper Plates
- Paper Cups
- Construction Paper
- Coloring Utensils (markers, crayons, colored pencils)
- Scissors
- Glue or Tape
- Yarn or ribbon
- Hole Puncher

1. Make a dot in the center of your paper plate. Then, cut a triangle out of the bottom, using the dot as the top point of the triangle.
2. Starting on one side of the rim, cut the paper cup in half. Color one half the color of your snout, and the bottom the color of your nose.
3. Glue or tape your snout onto the plate, with the inside of the cup pointing down towards the cut out triangle.
4. Color in your plate the color of your wolf’s face.
5. Cut out holes for the eyes.
6. Make two ears out of construction paper and glue or tape them to the top of the plate.
7. Punch a hole on both sides of the plate. Then string the yarn or ribbon through one side and tie a knot.
8. Adjust the ribbon or yarn around your head, so that it meets the other side of the plate. Cut it (leave enough room that you can tie a knot on the other side).
9. Practice your wolf howls and head out on your hike with your “pack”.

Full Moon Fact:

Full Moons happen when the moon is exactly on the opposite side of the Earth as the Sun, so the entire Earth-facing side is illuminated.

Snow/Hunger Moon

The name “Snow Moon” tends to be applied to the full moon in February, when the snow is deepest and heaviest. February’s full moon is also sometimes called the Hunger Moon, given that it was difficult to find food at that time of year.



February

Frozen Food Challenge Activity

It's February and you and your troop are hiking in the mountains. The snow is thick and heavy. You pull out your backpack for something to eat and find all your food has been frozen! What will you do?

What You'll Need:

- Foil/tin cake pan
- Water
- Hard candy/Jolly Ranchers

1. Ahead of your meeting/hike, pour water into the cake pan and drop hard candies/Jolly Ranchers in. Spread them out.
2. Put the cake pan in the freezer until the ice is solid.
3. At the meeting, challenge girls to think of ways to get the “food” out of the ice for their troop. Some ideas you could ask are:
 - What tools would you use to get the food out? Did you pack those tools?
 - How long do you think it will take to get the food out?
 - Will you be able to get all of the food out? If not, will it be enough to feed everyone in your troop?
 - What will they do once the food is out? How will they cook it?
4. Optional: Using safe utensils and protective gloves and eyewear, take the ice outside and see how long it takes the girls to retrieve all of the candies.

Full Moon Fact:
There are generally 29 days between full moons. Sometimes, months have two full moons. When this occurs, the second full moon is called the “Blue Moon”. Because February has 29 days or less, there will never be a Blue Moon in February!

Worm Moon

March's full moon, the "Worm Moon", is named after the worms that can freely move again once the ground thaws. Nightcrawlers roamed about, readjusting to the moonlight during the month of March. Another name for the March full moon is the "Full Sap Moon" because the maple trees became ripe for tapping in March.



March

Gummy Worm Stretch Activity

Worms play a critical role in our ecosystem - maybe even the most important role! Worms turn the soil, allow it to breathe, recycles and enriches it. Worm's are the gardeners best friend and are essential food for other wildlife like toads, birds, beetles, shrews and badgers.

What You'll Need (Per group, suggested 2-4 girls per group):

- 4 gummy worms
- 2 Ziploc baggies
- Ruler
- Paper
- Ice cubes
- Pen/pencil
- 2 bowls

1. Measure the length of each worm using the ruler. Number each worm and record your findings as "length before".

2. For worm #1, stretch it as far as you can without breaking it. Then, measure it and record this length as "length after".

3. For worm #2, roll it between your hands for 4 minutes. Then, stretch it as far as you can without breaking it and record this as the "hand-warmed worm" and record it's length as "length after".

4. For worm #3, fill one of the bowls with hot water. Place the worm in the baggie and close it. Then submerge the baggie for 4 minutes. Remove the worm from the baggie, stretch, and record the length.

5. For worm #4, repeat step 4 but with cold water & ice cubes.

6. Compare the results. How does temperature affect how much a gummy worm can stretch?

Full Moon Fact:
Many of the names we use for full moons come from Native American, Colonial American and European sources.

Pink Moon

April's moon isn't really "pink" - though that would be so cool! It gets its name from the return of brightly colored springtime blooms, mosses and ground flowers. Specifically, the pink comes from *moss phlox*, a common pink flower that blooms in early spring.



April

Moon Phase Jump Activity

Remember learning about the moon phases with sandwich cookies at the beginning of this guide? It's time to see how much you remember with this fun game that will get girls up out of their seats.

What You'll Need:

- White paper/cardstock
- Black/dark blue felt or construction paper
- Scissors
- Glue
- Scotch tape

1. Trace each moon phase onto the white cardstock and cut them out.

2. Glue them on to separate pieces of felt or construction paper.

3. Lay each phase out on the floor (can be in the correct order, or random). Girls will be jumping on to the felt/paper piece. If your floors are slippery, use scotch tape to secure the pieces and avoid falling.

4. One at a time, girls will stand in the middle of the pieces. You or another girl will call out a phase of the moon (ex. New Moon!). The girl must jump to the correct piece of felt/paper.

5. Optional - Change up the game by having the girl in the center jump to a random moon phase and the rest of the group shouts out which phase it is.

Full Moon Fact:
In ancient times, the Full Moon and Lunar Calendar were used to track the seasons.

Flower Moon

The May full moon is appropriately named the “Flower Moon” because of the many flower blooms that spread across North America during the month of May.



May

Frozen Flower Moon Activity

Create a beautiful flower moon with ice!

What You'll Need:

- Paper plate, frisbee or a round plastic or silicone container
- Water
- Real or fake flowers and leaves

1. If you're using a paper plate, coat with a layer of non-stick spray.
2. Arrange your flowers and leaves in the design of your choosing in the container.
3. Gently pour water until the flowers/leaves are submerged. Tip: For extra clear ice, use boiling water, but be careful when transporting to the freezer!
4. Freeze! If you're doing this activity in a colder month, you can leave the container outside to freeze. Otherwise, lay flat in the freezer. Be careful not to move the container too much and rearrange your flowers.
5. Once frozen, gently remove your “moon” from the mold.
6. Optional: Hold your moon up to the sun and see the light through your beautiful flower design!

*Once your moon has melted, do not leave plastic/fake flowers in nature. Throw them away or dry off and use for another project!

Full Moon Fact:
Full moons influence the ocean tides and some weather events. For example, there's a higher chance for rain or storms on the days after a full moon.

Strawberry Moon

June's full moon was named for the strawberries that were harvested during the month. June was often the only month strawberries could be harvested. June's moon was also sometimes called the "Honeymoon", since the full moon remained low on the horizon and appeared amber or honey-colored.



June

Campfire Strawberry Shortcakes

Want to make a fun snack to fuel up before your June night hike - why not make some strawberry shortcakes? It's an easy dessert you can make over the campfire using those fresh-picked June strawberries - yum!

What You'll Need:

- 1 frozen pound cake, sliced
- Strawberries
- 1 stick of butter, thinly sliced
- Brown sugar (1/2 teaspoon per girl)
- 1 can of whipped cream
- Tin foil

1. Have each girl form a bowl out of tin foil. It should be sturdy enough to stand on its own and not have any gaps or holes in it.
2. Place a slice of pound cake, 1-2 slices of butter and a 1/2 teaspoon of brown sugar in the bowl. Cover with more foil.
3. Cook over the fire until the butter and sugar have melted together and the cake has softened.
4. Remove from fire and carefully remove the cover.
5. Add sliced strawberries and a dollop of whipped cream on top.
6. Enjoy!

*Ensure there are no food allergies. If you will be stopping to make a campfire on your hike, bring a cooler for the cold ingredients. Adults should always handle hot foil packets.

Full Moon Fact:
According to folklore, the ideal time to accept a marriage proposal, new job or any significant change in your life is during the full moon.

Buck Moon

July is the time of year when male deer would begin to regrow the antlers they shed months before, which gave the July full moon the name “Buck Moon”. Whitetail Deer Antler is the fastest growing bone material known to man. Over the course of 120 days (late March through early August), a mature buck can grow in excess of 200 inches of bone on his head.



Homemade Moon Sand Activity

July is a popular month for beach vacations. Who doesn't love digging their toes in the sand or building a sand castle? Bring the sand home with you, and in fun colors by making homemade moon sand!

What You'll Need:

- Flour
- Oil (recommend baby oil, but coconut or vegetable oil will make this taste-safe for younger girls)
- Optional: Gel food coloring or kool-aid packets (2-3 packets per 2 cups flour)

1. If using gel food coloring, mix a couple of drops with the oil.
2. Measure 4 cups of flour and 1/2 cup of oil.
3. If using kool-aid packets, mix those in with the flour.
4. Mix flour and oil together in a bowl until the flour feels silky and sandy, but will hold a shape if you squeeze it in your hands.
5. Play!
6. Store in an airtight container.

*Both food coloring and kool-aid can leave a slight stain on hands and surfaces if played with for an extended period of time. To remove stains, mix some dish soap, diluted white vinegar and warm water and gently scrub with an old washcloth.

Full Moon Fact:
National Moon Day is celebrated every year on July 20th. This day commemorates the day the first man walked on the moon in 1969.

Sturgeon Moon

August's full moon is traditionally called the "Sturgeon Moon" because the giant sturgeon of the Great Lakes and Lake Champlain were most readily caught during this part of the summer.



August

Fisherman Relay Race

This fun team game will get your Girl Scouts in the mood to catch some fish!

What You'll Need:

- 2 sets of fishing gear (vest, hat, boots, tackle box)
- Painters tape

1. Place a piece of tape on the floor. Then, measure your desired distance away and place another piece of tape. Repeat so you have two "lanes" identified.
2. Split girls into 2 even teams.
3. Place each set of fishing gear on the tape furthest away from you. Split each team into two groups. One group lines up behind the pile of gear, the other lines up on the opposite tape.
4. When the race starts, the first players in line for each team (on the no-gear side) must run to the gear, put on all of the clothing, pick up the tackle boxes and race back to their group. They must then take off all of the gear and pass it to the next player.
5. The next player must put on all of the gear and race back to the other piece of tape, take off the gear and pass it to the player waiting there.
6. Repeat until all players have had a turn. The team to get through all of their players first wins!

Full Moon Fact:

The moon contains many craters formed by asteroids and comets colliding with it.

Blue Moon

In 2023, August has two full moons - a rare occurrence called a “blue moon”. If you’ve ever heard the phrase “Once in a blue moon...”, that’s where it came from. On average, blue moons occur once every 33 months or once every 2-3 years.



August - Blue Moon!

Blue Moon Ice Cream

“Blue Moon” ice cream is a popular flavor found almost exclusively in the midwest, though few have been able to explain exactly what it tastes like. Try it yourself with this no-churn recipe you can make at home or at camp!

Ingredients:

- 14oz. sweetened condensed milk
- 1/8 tsp. salt
- 1 tsp. almond extract
- 1/4 tsp. vanilla extract
- 1/4 tsp. raspberry extract
- 1/2 tsp. blue food coloring
- 2 cups heavy whipping cream

1. Whisk together the condensed milk, salt, almond, vanilla, and raspberry extracts, and the blue food coloring.

2. In a stand mixer, whip the heavy cream until stiff peaks form.

3. Gently fold half of the whipped cream into the blue mixture. Once combined, fold in the remaining whipped cream.

4. Place the mixture into a 9x5 loaf pan and cover with foil. Freeze for 5 hours or until the ice cream is firm and can be scooped. Enjoy!

5. Store covered with a lid in the freezer.

Full Moon Fact:
Blue moons do not actually appear blue. However, according to NASA, in 1883 an Indonesian volcano erupted, spreading ash as high as 50 miles into the atmosphere - the ash acted as a filter, scattering red light and making the moon appear a distinct blue-green color.

Harvest Moon

The September “Harvest Moon” was named because September is the time of year when the moon is brightest, allowing farmers to gather their crops later into the night. September became the month of harvest. The Harvest Moon sometimes appears in October instead of September because it is the full moon that occurs closest to the fall equinox, which changes yearly.



September

Harvest Outdoor Scavenger Hunt

When harvest season comes, farmers have a long list of things they need to gather from their fields. Give your Girl Scouts their own list of things to find during your hike! Remember to Leave No Trace.

What You’ll Need:

- Paper list of scavenger hunt items for each girl
- Pencils/pens
- Flashlights (If going on a night hike, each girl will need a flashlight to help her search)

1. Print a list of items girls might find on your hike for each girl.
2. At the beginning of your hike, give each girl a list and a pen or pencil to mark what she’s found.
3. At the end of the hike, compare lists. Who found the most items?

Here are some ideas for your list:

- Red leaf
- Acorn
- Flower
- Smooth rock
- Jagged rock
- Twigs
- Winged seed
- Spider web
- Animal print
- Birds nest
- Pine cone
- Piece of litter (Don’t forget to pick it up, if it’s safe to do so!)

Full Moon Fact:

There are human footprints on the surface of the moon, even though man hasn’t set foot there in decades. Because there’s no wind or water on the moon, tracks can last millions of years.

Additional Night Hike Activities

Rock Fireworks: Find or bring with you quartz rocks. Strike or rub them together, causing a visible light around the quartz. This light is a small electrical discharge caused by the disruption of the crystalline molecules of the quartz.

Stargazing: Study up on your constellations before heading out on your hike. Stop throughout to look up at the sky and identify the North Star and any other constellations you can find. There are multiple apps available for smart phones that can help you identify constellations as well.

Nocturnal Find-and-Seek: Search for the nocturnal wildlife that comes alive at night. You might find frogs, toads, earthworms and small rodents.

Owl Call: Before your hike, find a video of an owl call and learn to mimic it with your voice. This may take some practice! On your hike, give your best owl call and see if you can get a response from a real owl.

Spider Eyes: Spider's eyes are reflective. Hold your flashlight to the side of your forehead and shine it into dense foliage or vegetation and look for the reflection of spider eyes.

Lifesaver Sparks: Bring a packet of Wint-O-Green-flavored Lifesavers candy with you on your hike. It **MUST** be Wint-O-Green flavor. Stand face-to-face with a partner and bite down hard on the Lifesaver. Crunching the candy should release blue sparks in your mouth that your partner will see.



MOON MAYHEM PATCH

Complete the designated number of activities for your program level from October 1st, 2023 - September 30th, 2024 to earn your GSCB Moon Mayhem Patch! Share your moon photos for a chance to be featured on GSCB social media.



Daisies complete 15 total activities, must do at least 1 activity for 6 of the months



Brownies complete 20 total activities, must do at least 1 activity for 8 of the months



Juniors complete 20 total activities, must do at least 1 activity in each month



Cadettes, Seniors and Ambassadors complete 30 total activities, must do at least 1 activity in each month

October

- Went on a night hike
- Completed Galaxy Jar Activity
- Took a photo of the Hunter's Moon

December

- Went on a night hike
- Made a Bird Feeder Ornament
- Took a photo of the Cold Moon

February

- Went on a night hike
- Completed Frozen Food Challenge
- Took a photo of the Snow Moon

April

- Went on a night hike
- Completed Moon Phase Jump Activity
- Took a photo of the Pink Moon

June

- Went on a night hike
- Made Campfire Strawberry Shortcakes
- Took a photo of the Strawberry Moon

August

- Went on a night hike
- Completed Fishermans Relay Race
- Took a photo of the Sturgeon Moon

Extras

- Rock Fireworks
- Stargazing
- Nocturnal Find-and-Seek
- Owl Call
- Spider Eyes
- Lifesaver Sparks

November

- Went on a night hike
- Completed Beaver Dam Activity
- Took a photo of the Beaver Moon

January

- Went on a night hike
- Made a Paper Plate Wolf Mask
- Took a photo of the Wolf Moon

March

- Went on a night hike
- Completed Gummy Worm Stretch
- Took a photo of the Worm Moon

May

- Went on a night hike
- Completed Frozen Flower Moon Activity
- Took a photo of the Flower Moon

July

- Went on a night hike
- Made Homemade Moon Sand
- Took a photo of the Buck Moon

September

- Went on a night hike
- Completed Scavenger Hunt
- Took a photo of the Harvest Moon



Order Your Patch