

GSHPA

Activity Ideas

Cookie Archeology

Materials

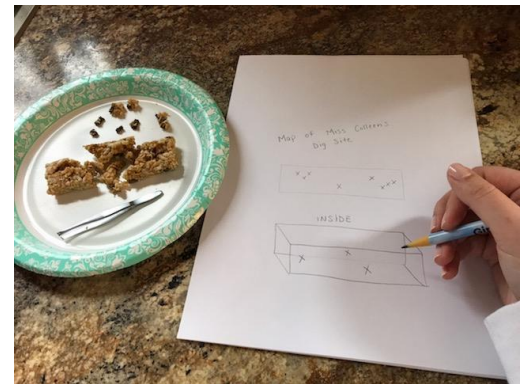
- Chocolate chip/oatmeal raisin cookies (can substitute with granola bars or any snack bar with chips/nuts)
- Plates
- Toothpick or tweezers
- Paper & pencil
- Optional: small paint brush, magnifying glass

What is archaeology?

- It is the study of the past by looking for the remains and objects left by people who lived a long time ago. These remains or objects can include things like old coins, tools, buildings, and writings.
- Scientists that study archaeology are called Archaeologists!
- Archaeologists are both scientists and detectives – they use scientific methods like excavation to discover clues that help them solve mysteries of the past!
- Excavation means removing soil to discover artifacts – objects left behind by people. Excavation is a SLOW and DIFFICULT process!

Activity – Cookie Excavation

- To understand how careful archaeologists must be, try excavating a cookie! The chocolate chips/raisins or nuts will be the artifacts we are trying to excavate!
- Grab your materials. Before you start digging into your cookie, map your cookie:
 - Use paper and pencil to draw or map out what your cookie looks like and mark an “x” where all the chips are. Continue to do this as you find more chips.
- Begin to excavate your cookies with the toothpicks. Be careful to not damage any “artifacts.”
- When you are done, think about the following questions:
 - Does your map reveal any patterns? How many “artifacts” did you find?



- If your parent/guardian allows – go ahead and eat your cookie and “artifacts!”

Like this activity? Try it with other snacks or objects you have around your house! Some suggestions:

- Fill a container with small toys or figurines and water, freeze it, and have your Girl Scout chip away the ice to get to the artifact!
- Use extra potting soil or sand to create a mini excavation site on a tray or large container. Hide small toys, figures, rocks, etc. in the soil and then have your Girl Scout excavate them out!
- Have a sandbox outside? Hide objects for your Girl Scout to excavate in the sand!

Nature Sounds

One great experience we can have when spending time outdoors is listening to the sounds of nature. The sounds of wildlife and nature are important to the ecosystems or environments they are in.

Activity One: How Animals use Sounds:

- Communicate
 - Many bird songs can be described in human phrases. For example, the American Goldfinch call sounds like the words "potato chip!"
- Establish territories
 - Rattlesnakes shake their tails to alert intruders to their presence, saving them the trouble of an attack.
- Find habitats
- Court and mate
- Raise families
 - When returning to the colony with food, a sea lion mother finds her pup by recognizing its voice.
- Find food
- Avoid predators
 - Male cicadas produce the loudest sounds in the insect world. Entomologists believe that the sound protects these insects by hurting predators' ears.
- Protect their young
 - Killdeer use a distinct, high-pitched trill, while faking a broken limb, to distract predators from their nests.

Activity 2: Guess the Nature Sound

- Let's play a guessing game. Play a sound from nature and guess what they are (see answers on next page):

- [Sound 1](#) [Sound 2](#) [Sound 3](#) [Sound 4](#) [Sound 5](#) [Sound 6](#) [Sound 7](#)
- [Sound 8](#) [Sound 9](#) [Sound 10](#)

Because the sounds of animals and nature are important for animals to survive, it is important that when we are in nature that we do not cause too much noise. Instead of talking and being loud, try and listen for all of the amazing sounds around you.

Answers to sound guessing game:

- | | | |
|------------------------------|----------------------|----------------------------|
| 1. Thunder | 5. Antelope squirrel | 9. Diamondback rattlesnake |
| 2. Water flowing | 6. Coyote | 10. Sea lion |
| 3. Prairie dog | 7. Bat echolocation | |
| 4. Beaver slapping it's tail | 8. Orca | |

Resources [Link 1](#) & [Link 2](#)

Badge Connection

- Daisy Outdoor Art Maker Step 2, Junior Outdoor Art Explorer Step 3

Edible Fires

Learn about fire building and safety by making edible fires!

Supplies

- A plate (to build your edible fire on)
- A small cup of water (to represent your fire bucket)
- A spoon or fork (to represent your shovel)
- Small roundish snacks (to represent your fire ring)
 - I used M&M's, cheerios and mini marshmallows
- Any sort of small, slim snacks (to represent tinder)
 - I used crushed cashews and coconut flakes
- Thin, twig-like snacks (to represent kindling)
 - I used pretzel sticks and veggie straws
- Thicker, branch-like snacks (to represent fuel)
 - I used jumbo pretzel sticks or tootsie rolls



Directions

- When we make a campfire, we need a clear area free of dried grass and sticks and we should be using an established fire pit. Begin making your fire by making sure you have your plate clean and ready! Create a fire ring on your plate with your “rocks.”

- Do we have the right safety equipment on hand? Ensure that your fire “bucket” is filled with water and that you have your “shovel” nearby. Pull back your hair and make sure you’re not wearing anything that could hang into the fire.
- The next step is to collect your tinder, kindling, and fuel.
 - Tinder are your smallest pieces of wood, about the size of your pinky finger. This wood catches quickly and its main purpose is to get your initial flame.
 - What edible items could these be?
 - Kindling are the next pieces, about the size of 1-2 fingers. This type of wood is the second stage, it burns longer than tinder and can get that necessary initial fire started. Once you get enough kindling burning, it should begin to generate enough heat and flame to get your big pieces lit.
 - What edible items could these be?
 - Fuel are the biggest logs, the ones that keep your fire burning all night. Some styles of fire have it in their initial formation, while others have to begin to add it as your fire builds up enough heat to catch them.
 - What edible items could these be?
- When building your fire, consider what you want to use it for.
 - To cook food, to keep you warm in harsh weather, or simply to provide a space to gather around and sing songs and tell stories.

There are hundreds of styles of campfires, here are some easy examples to start.



Once you’ve fully enjoyed your fire, the most important thing to do is ensure that it is completely put out. Eat your snack, or pack it away into a plastic baggie to enjoy later!
(Credit to GSOSW Council)

Badge Connection

- Brownie Eco Friend step 3

Frozen Camp

You and your Troop were camping and you left your site to go on a hike. When you returned, you found that your camp was mysteriously frozen! In this activity, you will be using different ideas to ‘unfreeze’ your camp!

Pre-Activity Set-up: Freeze the following items in water:

- Box of matches inside a plastic baggie
- Cooking pot
- Macaroni noodles (freeze as much as you would like to eat)
- Spork or fork

Additional Materials:

- Items above
- Hot water
- Sun
- Fire or stove
- Hands

Activity

You have returned to camp hungry after a hike with your Troop to find that many of the items you left behind have been frozen in water! It is your job to figure out ways to melt your items without damaging any of them so that you can enjoy lunch and fuel your body for the rest of your trip!

- You come across four items that are frozen: matches, a cooking pot, macaroni noodles, and your spork/fork.

Step 1: Melt your pot

- Since it is starting to warm up, you decide to use the sun to help you melt one of your items. You take your frozen pot and put it out in the direct sunlight to help you melt the ice frozen in and around it.

Step 2: Melt your matches

- Next, you decide that melting the bag with your matches would be very helpful because you will be able to use them to build a fire. You decide to use the heat from your hands to rub the bag and warm up your matches! You are getting hungry so you need to warm them as fast as you can! If your hands get too cold pass the matches to someone else in your Troop to warm them up!

Step 3: Build a fire

- Now that you have your matches, with the help of you Troop Leader, you can build and light a fire to help you melt some of the other items. (If you don't have a fire, you can use your stove). You check on your pot and find that the sun has warmed it up enough so you can dump the ice and water out and dry off the outside.

Step 4: Cook your macaroni

- Now that you have a pot and fire, you can place your frozen macaroni noodles in your pot to melt and cook them! Make sure you have an adult's help when cooking and also to know when your noodles are finished cooking.

Step 5: Melt your spork

- Your noodles are almost finished cooking and you are starving so you can't wait to eat, but you realize your spork is still frozen. You decide the fastest way to melt your spork is to pour some water from your pot over your spork. You ask your leader to help you with the task and in seconds your spork is melted and you can finally eat!

At Home Scavenger Hunt

Scavenger hunts are always fun, whether they are held in person or remotely. This scavenger hunt is entirely camping themed.

Instructions

- One person in your group is going to be the host. The host is the only one in the group who knows what is on the scavenger list until the scavenger hunt starts.
- The host will then share the scavenger list with the participants giving them 10 minutes to find 10 items on the list.
- The participants will then share the items that they found with the entire group. Additionally, they can share why they chose an item, if it was for a special reason.

Camping Themed Scavenger List:

- | | |
|--------------------------------------|---|
| • Your favorite book | • A flashlight |
| • Your favorite snack | • A sweatshirt |
| • Your favorite Girl Scout Item | • Flip-flops or sandals |
| • Your toothbrush | • Sunscreen |
| • Your brush/comb | • Something you would take on a walk or hike |
| • Your sunglasses | • Something you would find in a First Aid Kit |
| • A pair of sneakers or hiking boots | • Something you put in your hair |
| • A hat | • Something you drink out of |
| • A towel | • Something that we missed that you would take camping! |
| • A backpack | |
| • A blanket | |

Badge Connection

- Brownie Making Games step 1

Leave No Trace Snowball

Introduction

- What does it mean to “Leave No Trace?”
 - Grab paper and a pencil and brainstorm your ideas.
- There are 7 Principles of LNT. These are important to follow while exploring in nature, hiking, camping, and other outdoor activities.

○ Plan ahead and prepare	○ Leave what you find
○ Travel and camp on durable surfaces	○ Minimize fire impacts
○ Dispose of waste properly	○ Respect wildlife
	○ Be considerate of others

Materials

- Small piece of paper, pencil

Directions

- Have each participant write something that is not LNT friendly on a piece of paper. Can have multiple slips of paper.
- Form a circle and have all the participants crumple the paper into a ball and “throw” it into the circle.
- Then have girls pick a “snow ball” one at a time and read it aloud.
 - Example: “I buy bottled water every day.”
- Once they read the scenario, have them think of a way to improve or make it more LNT friendly.
 - Example: “I will buy a reusable water bottle and use water fountains.”
- Continue until everyone has read at least one.

Badge Connection

- Daisy Eco Learner step 3, Brownie Eco Friend step 5, Junior Eco Camper step 4
- Cadette Eco Trekker step 1 (after using changes discussed on a hike or camp trip)

Friendship Bracelets

Learn how to tie a special knot and make a beautiful bracelet you can wear!

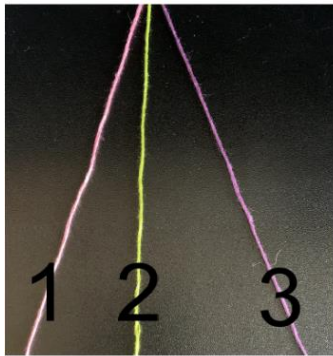
Supplies

- Multiple colors of embroidery floss - this can be found in the craft section of most grocery stores.

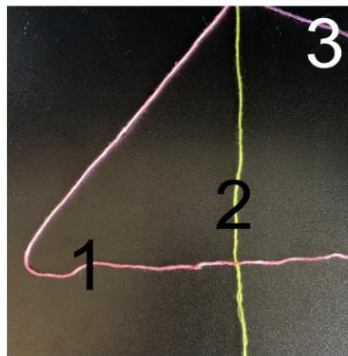
Directions

- Choose any number of colors that you want.
 - For my bracelet, I chose three strings. The more strings you use = the wider your bracelet! If this is your first time, I recommend doing no more than 4-5 strings. You'll want your strings to be about 2 feet long.
- Knot your strings at the top and splay them out so that all three strings are laid out in front of you.
 - For the sake of this tutorial, I'm numbering my strings from left to right.
- Take string # 3 and move it out of the way, we are only using string #1 and #2 to start.
- Take string #1 and bend it on top of string #2, creating a “4” shape with the two strings.
- Wrap the tail of string #1 around its neighbor (string #2) by going under it and pulling the tail of string #1 out through the space between the two strings.
- Pull it tight so that the knot sits at the top of the bracelet, string #1 is now sitting between strings 2 and 3.
- Repeat steps 4-7 with string #1 now wrapping around string #3.
- Now string #1 should be sitting at the farthest right spot and string #2 in the farthest left.

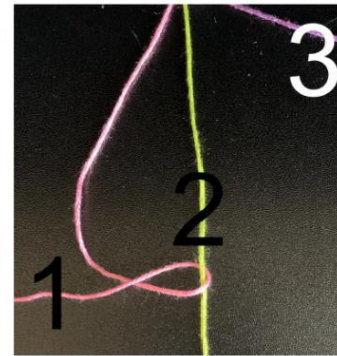
- Repeat your steps again, this time with string #2 making the knots.
- Continue this pattern, knotting your strings from left to right and watch as a bracelet forms!
- Once you have reached your desired length, knot the end and you're done!



Step 2



Step 4



Step 5

Finished mini-friendship bracelet! Once you have finished share your creation on the Facebook Event Page, under the Friendship Bracelet Video! (Credit to GSOSW Council)



Additional Resources for Advanced Friendship Bracelets and How to

- [How to/more details](#)
- [Diamond Pattern](#)
- [Chevron Friendship Bracelet](#)

Badge Connections

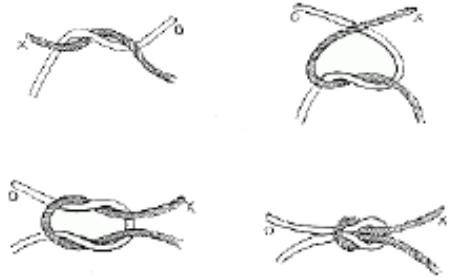
- Brownie Outdoor Art Creator step 2 and Junior Outdoor Art Explorer step 2

Essential Girl Scout Knots!

Knot tying is so much more than just looping some string and pulling really tight — it's an essential skill for taking on the outdoors. In most outdoor activities, your safety relies on the accuracy of your knots. Below are common knots:

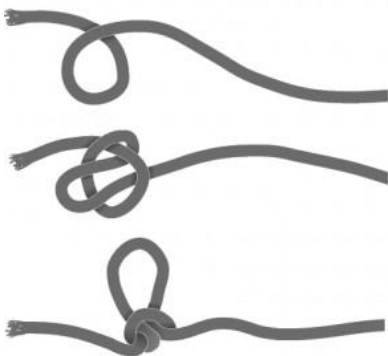
Square (reef) Knot

- Take the string in both hands, holding the ends
 - Cross the right string under the left.
 - Loop the right string once around the left, give a slight pull.
 - Now cross the strings again, but this time the right string will go over the left.
 - Loop the right string once around the left.
 - Pull the string, should look like image above.
- The reef knot, or square knot, is an ancient and simple binding knot used to secure a rope or line around an object. It can also be used to bind two ropes together.



Slip Knots

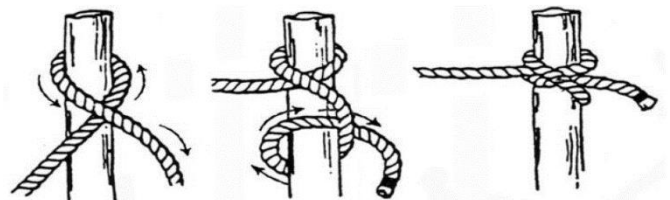
- Create an overhand knot by crossing the string in your right hand over the string in your left hand.
 - The loop should be facing down (like the first rope in the picture to the left).
- Secure the loop with your left hand where the rope crosses.
- Reach your right hand through the loop and grab a hold of the rope on the right side.
- Pull your right hand back through the loop.
- Then move your left hand to grab onto the two hanging ends.
- Slowly pull the string until it forms the knot.
- Slip knots are used when you need a loop that you can change the size of.



Clove Hitch Knot

The clove hitch knot is used to fasten one end to a tree or post

- Pass the end of the rope around the pole/object.
- Take the end that went behind the pole and lay it over the other end of the rope (making an “x” shape).
- Take that top rope and put it behind the post again.
- When it comes back to the front, lift up the “x” shape and slide it under.
- Pull tight to form the clove hitch.



Additional Resources

- [10 Essential Knots for Girl Scouts](#)
- [Knots & Lashing Instructions](#)

Badge Connections

- Daisy Buddy Camper step 3, Brownie Cabin Camper step 4, and Brownie Outdoor Adventure step 4.
- Learn some additional knots to complete Junior Camper step 2 and Cadette Primitive Camper step 4.
- Learn additional knots/lashes and use them to set up a campsite or similar to complete step 4 of Senior Adventure Camper and Ambassador Survival Camper.

Make Your Own First Aid Kit

Watch a video about what is in a typical first aid kit and then create your own to take camping or to Girl Scout events!

Supply Options

- | | |
|--|----------------------------|
| • Plastic tote or waterproof pouch to store supplies | • Hydrocortisone cream |
| • Band-Aids in various shapes and sizes | • Cough drops |
| • Non sterile gauze | • Tweezers |
| • Alcohol wipes | • Scissors |
| • Triple antibiotic ointment | • Waterproof tape |
| | • Reflective blanket |
| | • Icing or glucose tablets |

In this activity you will be learning how to create your own first aid kit. Before you begin, here are the basics about first aid.

- First aid is help given to a sick or injured person until they are able to get full medical treatment.
- First aid may require different types of supplies based on the injury or illness.
- A first aid kit keeps all of those supplies in one place so you have them when you need them and can help someone who is injured or ill.

Watch the following video about items you might find in a first aid kit: [Video Link](#)

After watching the video, gather the supplies you need for a first aid kit.

- Ask an adult to help you get these supplies together.
- You may need more supplies than what is discussed in the video; ask an adult for any other suggestions based on the members of your family or Troop and what they might need if they got injured or ill.

Next, decorate your container or pouch so that it is easily visible and everyone knows what it is.

- You don't want to spend too much time looking for a first aid kit when someone needs help!
- Once your container or pouch is decorated, you can place all of your supplies inside.

- Make sure to keep your first aid kit somewhere close by when you're camping or at Troop meetings.

Badge Connections

- Brownie First Aid Step 3, Junior First Aid Step 3, Cadette First Aid Step 2

Stuffed Animal First Aid

Materials Needed

- 1-3 stuffed animals
- Gloves, any kind
- Gauze pad & gauze wrap
- Empty water bottle
- Popsicle sticks, twigs, or anything to make a splint out of
- Scissors
- Items you can tie a brace with-string, tape, a long sleeve t-shirt.



Introduction

- In this activity you will be practicing first aid techniques on your stuffed animals. Before we get started let's talk about what first aid is.
 - First aid is help given to a sick or injured person until full medical treatment is available.
 - First aid can cover a wide range of skills depending upon the injury or illness.
- We will focus on two different injuries and the ways to treat them.
- As an FYI - this is just a fun activity and does not certify anyone participating to practice first aid. Be sure to always ask for help from an adult or someone certified in first aid when doing this in a real life scenario.

Scenario 1: Cut/Bandage

- You were running behind your stuffed animal in the forest when she accidentally tripped on a root. You helped her up and realized she had a deep gash on her arm. Because you planned ahead you had a few things in your backpack that could help.
 1. Look around to make sure there is nothing else dangerous that you could get hurt on in the situation.
 2. Put on your gloves and place a gauze pad directly on the wound. Hold it there briefly until the bleeding slows.
 3. After a few minutes remove the gauze and use clean water from your water bottle to rinse the wound of dirt. Allow excess water to run off.
 4. Apply a new gauze pad. Use your roll of gauze to wrap the wound. Start by leaving a few inches of gauze on the end (enough to tie with the other end at the end) and wrap the wound applying pressure. Tie a knot directly above the wound.
 5. Wait for your parents to catch up and they can help with the rest!



Scenario 2: Splint/Brace

- Your stuffed animal took a tumble and heard a pop in her leg. She said her shin hurts a lot, too much to move it. You don't see any blood and think she may have fractured her leg. You look around for supplies and get to work making a splint.
 - Remember to first look around to make sure there is nothing else dangerous that you could get hurt on in the situation.
 - Put on your gloves and tell her to stay still, as you look for two sticks nearby that you can use to make a splint and stabilize her shin.
 - Lay one on the inside of her shin and one on the outside.
 - You realize that you don't have any string so you look around for a few items you can use to tie around her leg. Maybe a long sleeve t-shirt, a belt, or some tape you have in your first aid kit.
 - Spread that out over the area you need to splint and tie them tight enough to hold the brace secure.
 - You wait briefly until the rest of your stuffed animal friends arrive with a stretcher to help you carry her out of the woods.



You did a great job helping someone in need today using very basic first aid techniques!

Badge Connections

Senior First Aid Step 3

Go on a walk!

Taking a walk is an easy way to get out of the house and connect with nature, even if it is just in your neighborhood. Below are some activity ideas to take with you on your journey.

Nature Detective Walk

Go on a nature detective walk. You can do this in your neighborhood, at a park or in your backyard. Spot at least three things from the list on this page. Just observe and make a checkmark next to the item you find—don't collect or touch anything!

- | | |
|-----------------------------|---|
| • An animal | • An insect |
| • A plant not colored green | • A bird (do you know what kind it is?) |
| • A tree with flowers | |

- A fallen leaf with a pattern you like
- A rock with an unusual shape
- A bush as tall as you are
- A pinecone or acorn
- Colored moss growing on a rock or tree
- More fun stuff you find (write what it is)

Use your senses outside

Go outside with a pen and paper and write down words or draw pictures of what you see, feel, hear, and smell. Is it sunny or cool? Do you see pictures in the clouds? Shapes in flowers? Can you smell pine needles or rain? Do you hear the wind in the trees or the sound of the leaves crunching as you walk? Stick out your tongue—does the air have a taste? When you get back, describe five things from your hike to an adult or friend. You can even make it into a story, poem, or picture book. Use your notes!

Record How Things Change Outdoors

Head outside and find a scene — it might be a tree, a path, a park, or a plant in your backyard. Write about it or sketch (must sketch to earn Junior badge) it in color. Record everything you observe. What season is it? What time of day? What colors do you see? What do you like about your scene?

Return to this spot on another day, a different time of day, or even a different season. You might see the same tree reflected in a pond during the summer and in ice during the winter. Is the lighting different? Did weather make a difference in the scene? In what ways do your two impressions of the same scene differ?

(Credit to GSOSW Council)

Badge Connection

- Daisy Outdoor Art Maker steps 1 & 2 and Brownie Outdoor Art Creator step 1, Brownie Senses step 1, Junior Outdoor Art Explorer Step 1 and Cadette Outdoor Art step 1.

Leaf Rubbing and Salt Dough

Preserve a memento of the nature around you! Make a leaf or bark rubbing, or press their shape into a salt dough charm or ornament. Write down the memories you associate with that piece of nature.



Leaf/Bark Rubbing

- Make a leaf rubbing by placing paper over a leaf and rubbing it with a crayon or chalk.
- Try it with soft and hard leaves to see if there's a difference. Or make a bark cast from a tree. Press clay on a tree trunk, and then remove it gently to make sure you can see the mark from the bark.

- Be careful not to hurt the bark or leave any clay on it. Do the same thing on several tree trunks to see the different designs in the markings.

Additional Resource

- [Leaf Rubbing Details and Lead ID](#)

Salt Dough

Using clay or salt dough, make an outdoor-themed impression. You might collect leaves or shells, or anything that's unique to the area where you live. Press your found objects into the clay or dough, then remove them and return them to the place where they were found. If you'd like to hang your impression when it's finished, make a hole at the top for string. (You may need to re-poke the hole a few times as your impression dries to keep it from closing up.) Your impression can be dried in the oven on low heat—ask an adult for help—or outside in the sun on a hot day.

Materials

- 3 cups flour
- 1 cup salt
- 1 cup water (plus up to ½ cup extra water, if needed)
- Food coloring (optional)
- Electric mixer
- Drinking straws (optional)
- Parchment paper or aluminum foil

Instructions

- Mix the flour and salt together in a bowl.
- Add 1 cup of water to the flour mix. To make colored dough, add 15 drops of food coloring to the water before mixing it into the dough.
- Use the electric mixer to mix the dough on medium speed until a ball forms. If the dough is dry, slowly add water (1 tablespoon at a time) until the dough comes together.
- Remove the dough; knead it until smooth.
- Form the dough into disks and make your impressions. If you want to hang your finished project, use a straw to poke a hole at the top.
- With adult help, preheat the oven to 275 degrees.
- Bake dough pieces on a foil- or parchment paper-lined cookie sheet for 2 hours. Cool completely before handling.
(Credit to GSOSW Council)

Badge Connections

- Brownie Home Scientist Step 5, Brownie Outdoor Art Creator step 2, Junior Outdoor Art Explorer step 2, Cadette Outdoor Art Apprentice step 2.

Additional Resources for more Space Science Challenges

- [Girl Scouts at Home - Outdoor Experience Tab](#)
 - **Videos and Challenges**

Badge Connections

- Brownie Space Science Adventurer step 1, Junior Space Science Investigator step 1.

Additional Links to Activity Ideas and Resources:

- [Girl Scouts at Home Activities - GSHPA](#)
- [Outdoor Badge Activity Options for All Levels](#)
- [Free Outdoor Learning Activities](#)

Night Hike: Courageous and Strong!

Taking a hike at night is a fun and challenging way to test your courage, too!

PLAN

- Find an adult to share in this adventure.
- Decide on where you'll walk. If you'll be walking along a road, it's a good idea to wear reflective clothing.
- Wear sturdy, closed-toed shoes and take along a jacket if it's chilly.
- Find a flashlight and make sure the batteries work.

GO!

- Are you going to use that flashlight? Are you brave enough to turn it off? If you can turn it off, you will notice that your eyes begin to adjust to the dark and you'll see so much more in the dark than you ever have before. It's best to stand still while your eyes adjust and then start moving about. The longer you wait, the better it'll be.
- Listen- night noises can be fun to try to identify. Did you hear that? What is it? Be still again and really listen.
- Smells- what are you smelling? Do things smell different at night when it's cool and damp?
- Look up- are the stars out? Can you find the North Star (Polaris)? Hint: it's not the brightest star in the sky.

THINK and TALK and THINK

- So if you were a nocturnal (night time based) animal, would your body and your senses need to be different than a human's? How?
- What makes the dark scary? How can we be less afraid and more courageous?

- What new sensations or experiences could someone have if they weren't afraid to take night hikes?
- Can you plan a night hike for other people? Who will you invite? Where will you go?

Badge Connection

Junior Space Science Investigator Step 3, Cadette Night Owl Step 2

Night Sky: Constellation Disks

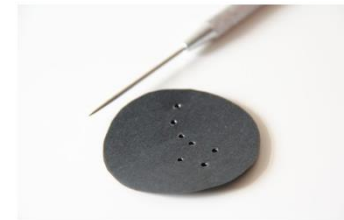
Materials:

- Black paper or card stock
- Flashlight (optional)
- Scissors
- Awl or needle
- Pencil

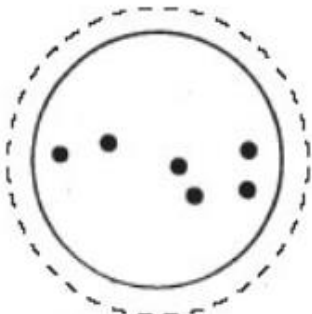


Creating the Disks:

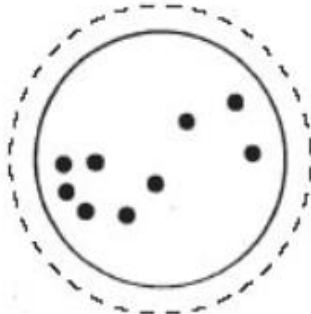
- Each girl will need one piece of black card stock paper; one needle and one constellation outline sheet (on page 37).
 - Tape or paper clip the constellation sheet over the black card stock paper.
- Using the needle, poke holes through both the pieces of paper; follow the constellation dots on each disc layout.
 - Do this for all 16 constellations.
- Using the needle, poke 4-6 holes in a circle, following the dashes, around each disc layout.
 - Do this for all 16 constellations.



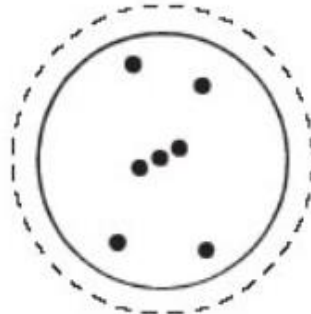
Constellation Outline Sheets



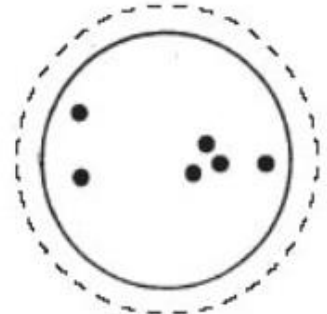
URSA MAJOR,
the Great Bear



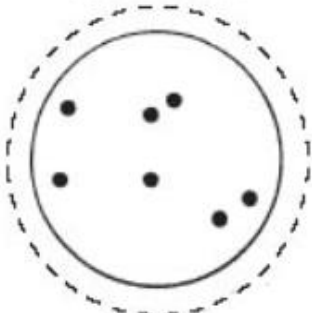
SCORPIUS,
the Scorpion



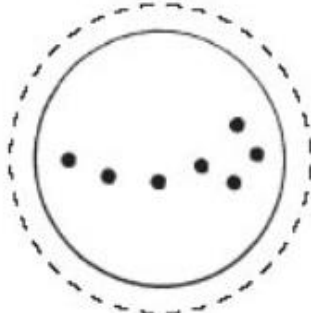
ORION,
the Hunter



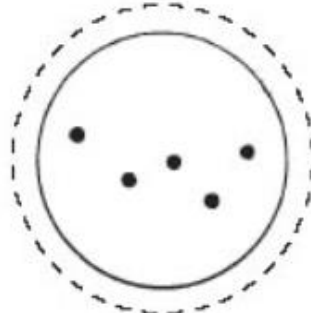
TAURUS,
the Bull



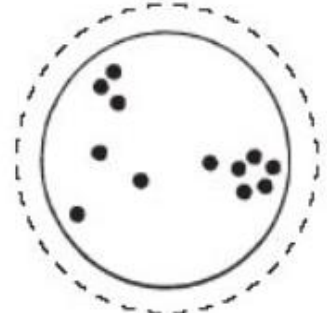
PEGASUS,
the Flying Horse



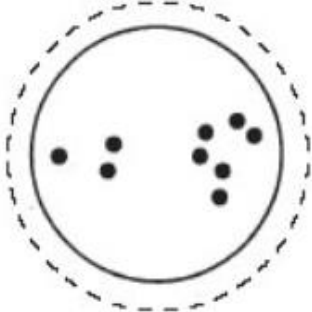
URSA MINOR,
the Little Bear



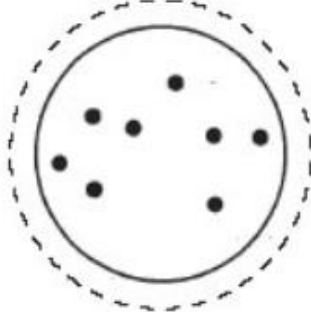
CASSIOPEIA,
the Queen



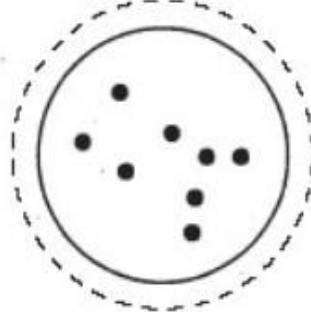
PISCES,
the Fishes



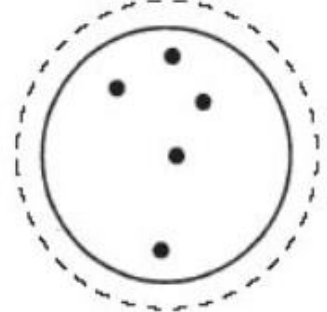
LEO,
the Lion



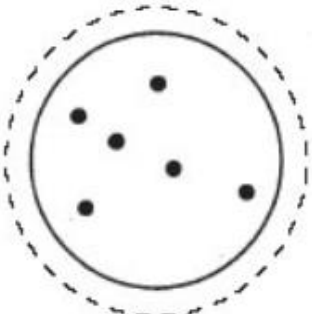
SAGITTARIUS,
the Archer



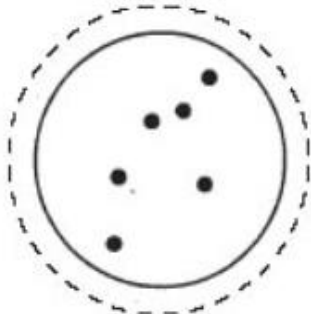
GEMINI,
the Twins



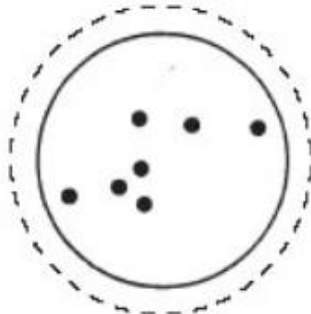
BOOTES,
the Herdsman



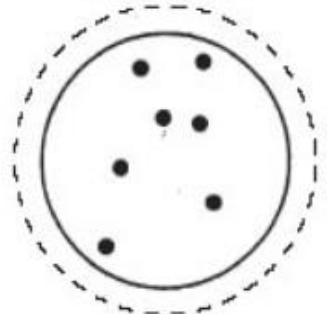
CYGNUS,
the Swan



PERSEUS



CANIS MAJOR,
the Big Dog



HERCULES

- Remove the white constellation sheet.
- Using scissors cut out all 16 discs.

Place disc into flashlight:

- If too small, tape sides to the edge.
 - Do not tape over the holes.
- If you find holes are too small, widen slightly with needle.

Try it out:

- Turn off all the lights in the cabin and have a constellation show!



Badge Connection

- Brownie Space Science Adventurer step 4, Senior Sky step 5

Star Gazing Resources

Girl Scout at Home Web Page – [Outdoor Experience Section](#)

You will find videos and activity challenges on several constellations, the moon, and the planets. You will also find a video on how to use a phone app, SkyView Lite, to see the constellations at any time!

Badge Connection

Daisy Space Science Explorer Step 3, Brownie Space Adventurer Step 4, Cadette Night Owl Step 4.

Night Vision: Light to Dark

Let's test our eyes! Turn off all the lights in the room or go outside and find a dark space! What does the group see? How does it look? We have two types of photoreceptor cells in the retina that help us to see:

- Cones: take in a lot of light and allow us to see in color.
- Rods: take in a small amount of light and are responsible for our night vision.

We have more cones in our eyes because we are diurnal (out during the day). Nocturnal (out at night) animals have more rods; therefore, they do not see color in the same way humans may. You actually need light to be able to see colors, so seeing in color is not important when you are a nocturnal animal!

Activity: Eye Patch

- Cover one eye with your hand or eye patch. Close that eye if you can as well. Keep the other eye open.
- Create a light for one eye to look at in the dark room.
 - Can use a flashlight/head lamp, candle, or the light in a room.

Read the Story:

Black Beard Vs Red Beard

Once upon a time, there lived two rival pirates, Captain Red Beard and Captain Black Beard. Both traveled the oceans in search of the lost treasure, but only one had the treasure map. Captain Red Beard took great care to protect the treasure map from Captain Black Beard so that he might be the first to find the hidden treasure.

On a cloudy night, Captain Red Beard went below deck to study his charts and treasure map, believing he was now only a few days' journey away from the treasure. What Captain Red Beard did not realize was that Captain Black Beard's ship had been following him in the dark night, plotting to take over Captain Red Beard's ship and steal the treasure map.

At that very moment, Captain Black Beard's crew attacked, coming aboard the ship. Captain Red Beard heard the commotion above deck, quickly hid the map and waited for Captain Black Beard below.

As soon as Captain Black Beard came into the light, Captain Red Beard blew out the candle, switched his eye patch to the other eye, and used his night vision to fight poor Captain Black Beard. Black Beard, surprised by the blown out candlelight, immediately lost his night vision and that is why some pirates wore eye patches.

Activity Part 2:

- Now, like Red Beard, you will turn off the light or extinguish the light in your area!
- Once the lights are off, switch your hand to your other eye and open the eye that was closed during the story.
 - Do you have night vision?! It may be slightly blurry.
 - Switch your hand between your eyes a few times and see the difference!
- Imagine if you wore an eye patch all the time! How good would your night vision be!