

Activity Framework

Purpose

Get comfortable being outdoors in the dark by hiking a marked trail and doing various sensory activities on the trail.

Activity Outline

Introduction	(10 min)
Behavior Guidelines	(5 min)
Hit the Trail	(1 hour)

Quick Tips

1. Take a look at the route your group plans on taking on the map at the end of this guide. If you feel uncomfortable leading a group and think you may get lost, ask your liaison to take you on a tour of the route during the day.
2. The Parabolic Listening Ear and Night Sensory Trail are site specific and can be found marked on the map. The rest of the activities can be done anywhere.
3. Based on what you want your group to get out of the Night Hike, you can choose to do as many activities as you see fit. To get back on time, limit the number of activities you do to three or four.
4. The Lifesavers Sparks, Light and Color, and Brightest Light in the Universe tend to be the most popular and easy to facilitate activities.

Table of Contents

Introduction	Page 2
Behavior Guidelines	Page 2
Hit the Trail	Page 2
Activities	
Night Sensory Trail	Page 3
Light and Color	Page 3
The Brightest Light in the Universe	Page 3
Lifesavers Sparks	Page 4
Are You “Scent”sible?	Page 4
Parabolic Listening Ear	Page 4
Owl and Prey	Page 5
Bat and Moth	Page 5
Silent Solo Sit	Page 5

Materials

In Bags (5):

- Plastic box containing:
 - ⇒ Crayons (~25, various colors)
 - ⇒ Lifesavers (2 rolls of 14)
 - ⇒ Paper squares (~25)
 - ⇒ 2 candles
 - ⇒ 2 matchboxes
- Dynamo flashlight
- EB trail map with suggested routes
- Scent containers (10) in bag
- Planisphere
- Activity instruction packet
- Blindfolds (10) in bag

Not in Bags:

- Lesson plan

Introduction

Time: ~10 minutes



Before heading outside, have students share one to two words to describe how they feel about going outside in the dark of night. If you do not yet know all the students' names, have them share their name along with their response. If you want to increase creativity, allow for no or only a certain amount of repeat responses.

Encourage nervous students that going outside in the dark can be a challenging yet safe activity, as long as rules are followed.

Behavior Guidelines

Time: ~10 minutes



Be sure to establish rules and guidelines for student behavior.

- Keep conversations quiet so the group can hear directions and listen to the sounds of nature at night.
- It is recommended that students do not bring flashlights/headlamps as it can void the purpose of the night hike experience. It also may lead to arguments between students and most of their focus put onto the flashlights/headlamps instead of the hike. If you do allow flashlights/headlamps, set rules about when students can and how to respectfully use them. If you don't allow them, know that you have the crank flashlight in the Night Hike bag in case the need arises.
- Adult chaperones will be in the front and back of the group. Do not go ahead the lead chaperone or behind the sweep chaperone.
- Keeping your hands to yourself is especially important when walking in the dark and it is more difficult to see where you are stepping.
- Instruct students to stay put and be patient if they become separated from and cannot hear the group. Trying to find the group may lead to them getting more lost.



HANDS TO YOURSELF PLEASE



Hit the Trail

Time: ~1 hour

Head out on your planned route. At the trailhead, you can either have the entire group go the same direction or you can split the group in two, having one do the route clockwise and the other counterclockwise. Whatever you decide to do, just make sure there are enough chaperones to supervise and there are enough kits for all students to participate in the activities.

You can do any of the following activities while out on the trail, which are also listed on the quick reference packets inside the NH packs:

Night Sensory Trail

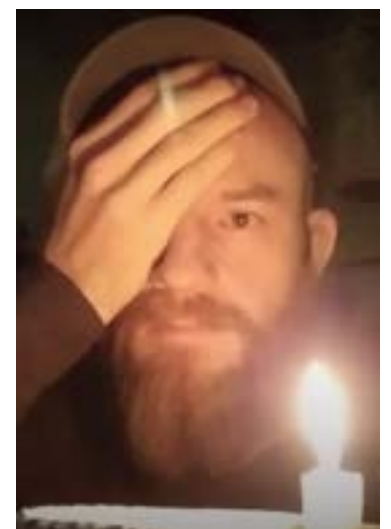
1. Use the map to locate the Night Sensory Trail along the NH trail
2. The Night Sensory Trail allows students to explore natural features using all of their senses but sight, the one they depend on most.
3. Each student must find a partner. There may be one group of three. Partners are responsible for helping their blindfolded partner without touching them as they follow the rope through the trail. Keep five feet between groups.
4. As groups go through the trail, watch carefully to ensure safety.
5. When all students have gone through, conclude the activity with the following questions:
 - Who felt uncomfortable or even scared as they went through the trail? Why?
 - What senses did people depend on most to get through the trail?
 - What are some animals that use senses other than sight to help them survive?

Light and Color

1. Stop in a very dark place. Pass out a paper square and a crayon to each student. Tell the class to guess the color of their crayon and write their guess on the paper square and collect the crayons.
2. After students have made their guess, use the flashlight to show students' their crayons or instruct the students to pocket their paper square until the end of the hike.
3. Many of their guesses on crayon color will have been wrong. **Explanation:** Humans have many more cone (color-seeing) cells in our eyes than rod (light-seeing) cells. This lets us see bright colors during the day, but gives us relatively poor night vision. Nocturnal animals have more rod cells than cone cells.
4. Once students have seen their crayons, use the following questions to summarize the activity:
 - What would be some advantages and disadvantages of having great night vision but poor color vision?

The Brightest Light in the Universe

1. Instruct the class to close their right eye and cover it with their hand.
2. Light the candle and ask the group to stare at the flame with their left eye for one minute.
3. Blow out the candle and have the students close their left eye and look with their right eye. Now have them switch eyes by closing their right eye and looking with their left eye. They should be able to see in the dark much better with the right eye that was covered.
4. **Explanation:** A chemical called rhodopsin is made in our eyes in low-light situations that allows us to see more clearly in the dark. Also, our pupils will grow larger to let more light into our eyes.



5. Use the following summary questions to conclude the activity:
 - List other examples where animals' eyes are different than ours in color or shape.
 - Recall a situation when you have noticed your eyesight adjusting to different light levels.

Lifesavers Sparks

1. Gather the group together in a very dark area. Ask students to find a partner.
2. Pass out one Wint-O-Green Lifesaver to each student. Instruct the students to face each other. At your signal have the group chew down hard with their molars on the Lifesaver with their mouths open. When they look into their partner's mouth, they should see sparks of light.
3. **Explanation:** The sparks are caused by energy made when methyl salicylate, only found in this flavor, is fluorescent, meaning it absorbs ultraviolet light (not visible to the human eye) and then reemits it as visible light. This energy then lights up the Wint-O-Green pieces in the Lifesaver. This is called triboluminescence (try-bo-loom-in-es-cents).



Are You “Scent”sible

1. Assemble the group together into a circle. Tell the group that you are going to challenge their sense of smell. Explain that you will pass around four different common scents and the students will try to identify them.
2. Pass the scent containers around the circle one at a time. Once students have smelled them have them share their guess.
3. The answers are: **A. Lavender B. Red Fox Urine C. Eucalyptus D. Peppermint E. Tea Tree**
4. Discuss the following ideas with the students:
 - What animals use scent to help them find food or survive? How many of you have dogs as pets? For what purposes do dogs use their sense of smell?
 - Why is a keen sense of smell especially important to nocturnal animals?

Parabolic Listening Ear

1. Use the map to locate the parabolic listening ear along the NH trail (no accessible on the prairie trail).
2. Assemble the class on the main trail above the parabolic ear.
3. Allow one student at a time to go down to the parabolic ear and listen for about 15 seconds. Instruct the rest of the group to listen quietly for the sounds of the night so they do not disturb the listener.
4. Ask the group to share some of the sounds they heard. Which sounds were “natural” and which sounds were “unnatural”? Can you make a story about the noises you heard?

Owl and Prey

1. Select a volunteer to be the owl. Blindfold the owl and station the owl by the side of the trail with the flashlight.
2. The other people are mice and will try to sneak past the owl. When they hear a mouse, the owl should flash their light on the sound. If a "mouse" is hit by the flashlight beam, they have been caught and can wait somewhere out of the way. You may have to act as the official for any decisions.
3. This activity can still be done in the daylight with the owl pointing rather than using a flashlight.
4. Introduce the following questions to debrief the activity:
 - How would different environmental conditions (rain, wind, snow, etc.) would affect the owl's catch rate.
 - What is the impact of noises from different kinds of ground cover (i.e. dry leaves versus hard-packed trail).

Bat and Moth

1. Choose a flat, open area free of obstructions for a playing area.
2. Instruct the students to make a large circle finger tip to finger tip. Select one student to be the bat and one student to be the moth. Send them inside the circle and, give them both blindfolds.
3. Bats and moths will have to make some sort of sound (clicking noise, hand clapping, finger snapping). The bat and moth will start inside the circle but away from each other.
4. The bat will make the sound and then the moth returns the sound to simulate the sonar effect.
5. After each sound, the moth can take one step. The bat can then move two steps. Touching the moth completes the capture.

Solo Silent Sit

1. Have the students spread out on the trail or slightly off trail, making sure there is one chaperone on each end of the trail from the students.
2. Have the students sit completely silent for 5-10 minutes, having them listen for as many different sounds as possible. During that time, if your group is sitting in an open area, they can also look up at the stars. When time is up, gather them back up and count the students to make sure that everyone is accounted for.
3. Once back together, you can ask any of the following questions:
 - What are some noises you heard that you were familiar with? Did you hear and unfamiliar noises?
 - Can you try to reproduce any of the noises you heard?
 - Are the noises you heard here different than back home?



Cleanup

- Untie blindfolds and stuff them back into their bag.
- Return matches, candles, crayons, paper squares and Lifesavers, to the plastic box in the bag.
- Place all other materials back into the Night Hike bags.
- Return your Night Hike bags to your liaison.