Outdoor Skills Patch
Navigation- Daisies

Learn the skills needed to thrive in an outdoor environment.
Do you know how to use different navigation techniques?
Do you want to learn about cardinal directions?

Step 1:
Learn about cardinal directions

Materials Needed:
o Large Piece of Paper
o Picture of a Compass Rose (see resources)
o Map of the world (see resources)
o Paper Plates
o Markers
o Compass
o A large dice or cube with the following phrases written on each of the sides:
  o “1 step West”, “2 steps North”, “3 steps East”, “1 step South”, “2 steps West”, “2 steps South”

Lesson Plan:
1. Gather the girls and explain that “Today we are going to start learning about how to navigate while outdoors. What do you think navigate means?”
   a. The act, activity or process of finding the way to get to a place when you are traveling.

2. “Awesome job! It is a way to help us not get lost while we are exploring the outdoors and navigation helps us find where we’re going! Before we can start learning all the different ways to navigate, we first need to learn about directions. Knowing these directions can help us use a map, compass, and GPS in the future.”

3. “The four directions we are going to learn about today are North, South, East, and West.”
   a. Write the four directions on the large piece of paper.
   b. These directions are called the cardinal directions.

4. When do you think these directions are useful or when have you heard adults talk about North, South, East, and West?
   a. Driving, giving directions, reading a map, learning about the world.

5. “Wow-za those are some great examples girls. All of those times are important times for us to know the four cardinal directions.”

6. These cardinal directions tell us which way we need to go. So they are always in a certain order on what’s called a Compass Rose.
   a. Show the picture of the Compass Rose.

7. We have North, East, South, and West labeled on our compass rose. Sometimes it can be hard to remember the order, so here is a tip I like to use to remember what order they go in: Never Eat Soggy Waffles.
8. “Now we are going to make our own compass rose to help us remember the four cardinal directions. What are our directions again?”
   a. North, South, East, and West! You girls are going to make great navigators!

9. Hand out a plate to each girl.
   a. Have the example of the compass rose in a place where everyone can see.
   b. Have girls add North, East, South, and West to the plate.
   c. Encourage the girls to decorate their compass rose however they want.

10. “Amazing! All of your compass roses look ready to use to help us identify directions!”

11. “Now we are going to put our compass rose to the test and see if we can identify the directions of the world.”
   a. Show the picture of the world map so everyone can see.
   b. Give a direction of North, South, East, or West and have girls point that direction.
   c. Continue naming the other 3 directions.

12. “Awesome job girls! You definitely know those directions!”

13. We just have one more activity to play to help you all remember the Cardinal Directions and use our new compass roses!
   a. Help the girls find North by using a compass.
      i. In order to find North, the girls will lay the compass flat and rotate the entire compass until the red part of the needle is located inside the red arrow on the baseplate.
ii. Girls will learn more about the compasses as a Brownie. Just focus on finding North for now.

b. Hang a piece of paper labeled North in that direction to help girls with their directions.
c. Decide as a group on a destination that the groups would like to make it to (it could be a piece of paper on the ground, a tree, a corner of the room etc.)
   i. Be sure to not make the destination too far away, keeping in mind that they will be moving in all four of the directions.
d. Have all of the girls stand facing North.
e. Take turns letting the girls roll the direction cube. All of the girls will look at their compass and take the number of steps in the correct direction.
f. At the end of every set of steps, have the girls face North again (just like a compass always faces North!)
g. Keep passing the cube giving all girls a chance to roll until your group has successfully made it to their destination.

14. “Great job girls! You surely know your directions and are going to make great navigators!”

15. Encourage girls to share their compass rose with their families and friends and tell them what they have learned about Cardinal Directions.

**Step 2:**

**Learn about staying safe outdoors**

**Materials Needed:**
- Paper
- Markers
- Sandwich sized zip bags
- The following items or pictures of the following items
  - Snack sized bag of high energy trail mix, whistle, a signal flag that can be cut from an orange plastic garbage bag or orange fabric, a reflector for sending signals (mirror, tin foil, old CD, etc.), a poncho or large, bright colored garbage bag.

**Lesson Plan:**

1. Before the lesson, begin by setting up the stations outlined starting on step 7.

2. Gather the girls and ask them what they remember about the first navigation step.

3. Amazing! You girls remembered all the Cardinal Directions. North, South, East and West! To remind ourselves of the directions, we are going to play a quick game.
   a. In your space, label the four Cardinal Directions (one direction on each wall indoors, or on trees/posts outdoors).
b. Choose one girl to be “It.”
c. She stands in the middle of the room, closes her or his eyes, and slowly counts from 1 to 10.
d. As “It” does that, the other girls quietly tip-toe to the direction of their choosing.
e. When “It” finishes counting, with eyes still closed, she calls out one of the four cardinal directions -- North, East, South, or West.
f. Any girl who is standing in the direction that “It” called out must sit down.
g. “It” repeats that process until only four or fewer girls remain.
h. When four or fewer girls remain, each student in the middle must choose a different direction.
i. The last girl standing becomes the new “It.”

4. “Wow! You girls did great at that game! Our next step of our navigation journey is learning about how to stay safe when we go outside.”

5. “Nobody wants to get lost when going outside, but sometimes things happen and we find ourselves lost in the outdoors. Today we are going to learn about what to do if we are outside and we do get lost.”

6. Nobody likes being scared or frightened but if you were lost do you think you would be scared at first?
   a. Yes? What are some ways that we can help ourselves from being scared if we were to be lost?
      i. Sing songs, whistling, telling jokes or stories, using your imagination to pretend you are somewhere else, etc.
   b. Wow those are great ideas! And a great start! We are now going to go to different stations and learn about what we should keep in an emergency survival kit and how to use it.
   c. You can have the girls go through all the stations as a large group or split them into smaller groups and have them rotate through the stations.

7. Start by giving the girls their sandwich zip bag. Ask them: “What could this bag be used for in an emergency?”
   a. The girls can come up with lots of different ideas. The main idea behind the Ziploc bag is to provide a cup for drinking water.
   b. Wow those are some awesome ideas! In addition to all your ideas our Ziploc bag is also going to hold all of our other survival items.

8. Station One – Trail Mix
   a. Have girls create their own high energy trail mix creation using nuts, dried fruits, cereals etc.
   b. After the girls have created their mix, ask them why they think they are adding Trail Mix to their survival bag.
      i. For food in case they get hungry when they are lost.
   c. Ask girls how long they think they can live without food. Girls can share their answers out loud or write their guesses down.
      i. About 3 weeks depending on other circumstances.
   d. That’s a long time to go without food! Why do you think we’re packing trail mix anyway?
      i. Food is comforting when you’re scared and can make you have more hope.
   e. So we know we can go 3 weeks without food, but how long do you think we can go without water?
      i. About 3 days
   f. Wow only 3 days! So finding water and using our big Ziploc bag is important. Or what would be even better than a Ziploc? A water bottle. Whenever you go camping/hiking you should always bring a water bottle.
9. Station Two – Make some noise
   a. Ask girls if they think it is important to make noise in an emergency situation. Yes? Why?
      i. Keeps yourself calm, helps searchers find you, and animals are scared of people so it will
         keep them away.
   b. What are some ways to make noise?
      i. Singing, whistling, hitting sticks together, etc.
   c. They also now have a whistle to add to their survival bag to help them make noise. Three short
      blasts is what is used to signal for help.
   d. Let the girls practice doing three short blasts once to practice and get the chance to blow their
      whistle.

10. Station Three – Signal Flag
    a. If girls are lost, they should do as much as they can to help themselves stay found.
    b. One method is making themselves look bigger if they are in an open space.
       i. Have girls practice this by laying on the ground and spreading their arms and legs out
          similar to making a snow angel.
    c. Ask girls when this would be useful?
       i. When they hear an airplane/helicopter coming towards them
    d. Another way to help stay found is to put out something bright and write a signal on the ground.
       i. Your signal should be either “HELP” or “SOS” and it should be as large as possible.
    e. Let girls practice writing help or SOS using rocks and sticks. Girls can work together to make it as
       large as possible.
       i. If your space does not allow for this, girls can draw a picture of what this would look like for
          a reminder.
    f. In addition to writing help or SOS it is important for it to stand out in nature, having a flag of a
       bright color can really help with this.
       i. Have girls cut a strip of the orange trash bag or fabric to use as flag.

11. Station Four – A reflector
    a. Ask girls why they think having a reflector is important?
       i. To send signals to planes
    b. Using the reflecting device can help people find you from the air and get in contact with others
       who may be looking for you on the ground.
    c. Hand out one piece of reflection material to each girl.
    d. Have girls go outside and practice using the reflection material.
       i. If it is not sunny outside, you can use flashlights to practice.
    e. Challenge girls to use their reflecting material to bounce the light to a certain area. It may be a
       building, a tree, etc.

12. Station Five – Staying warm
    a. If you are lost, it is important to keep yourself as warm as possible. How can we keep ourselves
       warm?
       i. Putting on all the clothes we can, covering our head if possible with a hood or a hat, not
          sitting/laying directly on the cold ground.
    b. How can we keep ourselves off the ground?
       i. Sit on a log/branch, pile up leaves to sit on.
ii. Rocks can be very cold too – don’t sit on rocks to stay warm.

c. Also an important part to staying warm, is staying dry! This is where the poncho comes in handy!
   i. If you have store bought ponchos, pass them out and have the girls practice putting them on.
   ii. If you have garbage bags – unfold the bags and have the girls cut a slit in the bag for their head (the bottom of the bag would be on top of their head) then practice putting the bag on.

d. In their new ponchos, have girls practice creating different warm spaces for them to spend time. They can pile up leaves, find logs, or use whatever they can find in their surroundings.

13. Congratulate girls on completing their survival kit! Remind them that it is important to carry this with them whenever they go camping/hiking even if they think it will just be a quick trip.

14. Now there is just one more thing to keep in mind before we go navigating through the outdoors, and that is the buddy rule!
   a. Ask girls if they know what the buddy rule is?
      i. It’s whenever you go somewhere you should always take a buddy with you.
   b. Great job girls! Why do you think it is important to follow the buddy rule?
      i. So you have someone to help if you get hurt, having a friend nearby is comforting, and if you get lost you can cuddle and share body heat.

15. Perfect! Now we are going to play a game of buddy tag to help us remember that we always want a buddy with us at all times.
   a. All players except for two form into buddy pairs and link one arm. Pairs spread out over area. There is one player as ‘It’ and one player being chased - the ‘runner’.
   b. The ‘runner’ may run up beside any buddy team and link his arm with one free arm of a buddy. This makes 3 girls together which is not allowed. So, the member of the buddy team that the ‘runner’ did not link arms with is now the ‘runner’.
   c. ‘It’ can tag the ‘runner’ at any point. As soon as he is tagged, he is ‘It’ and ‘It’ is now the ‘runner’.
   d. If you have an odd number of players, you can have two ‘runners’.

16. Wow! You girls were great at that. I am sure that you will always remember to take a buddy with you wherever you go. What else do you think is important besides taking a buddy with you?
   a. Telling an adult. You girls surely know what to do to stay safe.

17. You girls did great learning all about how to stay safe. And all of your knowledge about the cardinal directions and staying safe is going to be very handy as we continue our navigation journey!

**Resources:**

- Map of the World
- Compass Rose