

#### **BROWNIE OUTDOOR ADVENTURER BADGE - MEETING 1**

**Badge Purpose:** When girls have earned this badge, they'll have tried a lot of new things outdoors and learned which activities they want to do again.

Activity Plan Length: 1.5 - 2 hours

| Time       | Activity   | Materials Needed  |
|------------|--|---|
| 15 minutes | Getting Started  • Girls recite the Girl Scout Promise + Law                       | ☐ (Optional) Girl Scout Promise and Law poster  |
| 20 minutes | Night Vision  Girls will learn how eyes change in different light.                 | □ Eye diagram   |
| 20 minutes | Night Walk  • Girls will explore the outdoors after dark.                          | <ul> <li>☐ Flashlights (one per girl, not CF bulb or LED array varieties)</li> <li>☐ Red cellophane</li> <li>☐ Scissors</li> <li>☐ Rubber bands</li> </ul>                            |
| 20 minutes | Glowstick Capture the Flag  Girls will play a glowing version of Capture the Flag. | <ul> <li>□ Glowstick bracelets (one bracelet per girl, one color per team)</li> <li>□ Two larger glowsticks</li> <li>□ Two bandanas (or other large piece of cloth/fabric)</li> </ul> |
| 15 minutes | Wrapping Up  | ☐ (Optional) Make New Friends lyrics poster   |

**Getting Started** 

Time: 15 minutes

Time: 20 minutes

Materials Needed: (Optional) Girl Scout Promise and Law poster

Welcome everyone to the meeting, recite the Girl Scout Promise and Law.

## **Activity #1: Night Vision**

Badge Connection: Step 2 – Explore nature

Materials Needed: Eye diagram

Prep Needed:



- Print out the eye diagram handout, or pull up on your phone or computer.
- 1. Ask girls if they've ever watched a movie in a dark theater, and then gone outside while it was still sunny out, or if they were in a bright room, then turned the lights off. What do they think happens to their eyes during those situations?
- 2. The human eye is pretty amazing. We can see in bright sunlight and pitch blackness, but we do usually need some time to adjust to different amounts of light.
- 3. Tell girls that they'll be doing a little experiment to see how their eyes change depending on the light available. Have girls pair off. One person will be the observer and the other will be the eyeball.
- 4. The person who is the eyeball should open their eyes wide. The observer should look into their partner's eyes and try to find the three major parts of the eye: the white (the sclera), the pupil, and the iris.
- 5. Then, the partner is the eyeball should close their eyes. Count down from 20 seconds. After 20 seconds, the eyeball should open their eyes and the observer should watch their partner's eyes and see if they observe any changes.
- 6. Have girls switch roles. The partner who was the observer is now the eyeball and the partner who was the eyeball is now the observer. Repeat the countdown.
- 7. Ask girls to share their observations. How did their partner's eye change? *The pupil changed size—it got smaller*.
- 8. Say, if anyone has a cat or dog at home, you might have noticed how their eyes shine in the dark. That's because some animals have a special reflective surface on their eyes. It's called the *tapetum lucidum* and it helps animals see better in the dark.
- 9. Ask girls if they know what animals who are most active during the night are called. *Nocturnal*. Can they think of some other nocturnal animals? *Owls, cats, raccoons*.

Time: 20 minutes

Time: 20 minutes

#### **Activity #2: Night Walk**

Badge Connection: Step 1 – Play outdoors in a new way and Step 2 – Explore nature Materials Needed: Flashlights (one per girl, not CF bulb or LED array varieties); red cellophane; scissors; rubber bands Prep Needed:

- Ask families to bring in a flashlight.
- Tell girls that it takes the human eye some time to adjust to darkness. It can take anywhere from 10 to 30
  minutes to fully adjust to the dark. When we're walking in the dark, it's important to let our eyes naturally
  adjust to the darkness, but we still need a flashlight to stay safe.
- 2. One way we can use a flashlight but not ruin our night vision is to adapt it. Red light enables us to see and is night-vision safe.
- 3. Cut red cellophane to fit over the bulb-end of the flashlight. Use a rubber band to secure the cellophane to the handle of the flashlight.
- 4. Once everyone has made their red flashlight, take a night walk. How does the world look different when it's dark out? Use all your senses—what does it smell like, what can you hear, do you see any animals out that you don't normally see?

### **Activity #3: Glowstick Capture the Flag**

Badge Connection: Step 1 – Play outdoors in a new way and Step 3 – Buddy up and play outdoor games Materials Needed: Glowstick bracelets (one bracelet per girl, one color per team); two larger glowsticks; two bandanas (or other large piece of cloth/fabric)
Prep Needed:

Tie the bandanas (or fabric) onto the larger glowsticks. Each team will receive one flag.

- 1. Playing outdoors is fun, of course, but playing outdoors at night is even better! Tonight, the girls will be playing Glowstick Capture the Flag.
- 2. Explain the rules:
  - Divide the girls into two teams. Hand each team their glowstick bracelets (members of the same team should have the same color glowstick).
  - Decide which team will play on which side of the playing field. Give each team a few minutes to hide their flags in their area.
  - Decide where the jail will be. Tagged players will go into the other team's jail.
  - The goal of the game is to get the other team's flag across your own line without being tagged. If a member of the opposite team tags you while you're in their area, you have to go to their jail. You can be freed from jail if one of your own team members tags you again.
  - Teams should face each other, then count 30 steps backwards. This will be their beginning point.
  - Play!

Wrapping Up Time: 15 minutes

Materials Needed: (Optional) Make New Friends song lyrics poster

Close the meeting by singing Make New Friends and doing a friendship circle.

#### **More to Explore**

- Field Trip Ideas:
  - o Arrange a naturalist-led hike at a nearby regional or state park.
  - Visit the zoo to learn more about nocturnal animals.
- Speaker Ideas:
  - o Invite an older Girl Scout troop to your meeting to teach girls some new outdoor skills.

# Eye Diagram

