



## Brownie Senses

You have five senses that work together to let you see, hear, smell, taste, and touch the world around you. Try all five in this badge!

In this badge, explore how you might want to impact the world and how STEM can help you do it. Then, take the next step towards your goal for the future and start to make your mark.

### Steps:

1. Look around
2. Listen to the world
3. Put your nose to work
4. Take a taste test
5. Touch and feel

### Purpose

When I've earned this badge, I'll know how I use my five senses to explore the world.

### **SIDEBAR: Tip Before Takeoff**

**Don't worry if some of your senses don't work as well as others. If a step isn't right for you, do two choices in another step.**

### **SIDEBAR: Different Ways To See**

People who are color-blind can't see differences between certain colors. Go online with an adult to find a color blindness test. Look at it, and talk about what it might be like to be color-blind.

Optical illusions use lines or shapes to trick your brain. These pictures can be seen as two different things, if you look at them long enough. Which image do you see first?

### **Step 1: Look Around**

**Explore your sense of sight by doing one of the following activities. Look out . . . there's fun ahead.**

Choices—do one:

- **Hold a scavenger hunt in your neighborhood or at a park.** Find at least 10 tiny things, like a clover or an anthill. Bring a magnifying glass, and talk about how it helps your sense of sight.  
**For More FUN:** Hold your scavenger hunt on a night hike, with a flashlight. Before you go, find out why humans can see better with more light.
- **Play Kim's Game.** Ask your volunteer to collect about 10 items and place them on a table, covered by a cloth. Sit around the table with friends. Lift the cloth for 10 seconds. Then re-cover the items and list what you saw. How many items could you

remember? This game has been popular with Girl Scouts for nearly one hundred years!

- **Go on a window hunt.** Partner with a friend and look out a window. Keep a list of how many human-made things you can see, like chairs, fences, or machines; and how many natural things, like animals, clouds, and trees. Who can find the most? Then find a different spot and play again.

## SIDEBAR: More To Explore

**Play telephone.** This works best with 8 to 10 people. Have one person whisper a message to the person next to them. Keep passing the message along, with each person whispering what they heard to the next person. The last person says the message aloud. Is the message the same as it was at the beginning?

## SIDEBAR: Animal Facts

- Cats can see six times better than humans
- Dolphins sleep with one eye open
- An ostrich eye is bigger than its entire brain!
- Butterflies taste with their feet

## Step 2: Listen To The World

**The inside of your ear has hundreds of bones. Some of these bones are the tiniest in your body, but they can deliver big sounds! Open your ears by doing one of the following activities.**

CHOICES — DO ONE:

- Listen for 10 different sounds. If you're inside, listen for sounds outside (no peeking out a window!). Draw pictures of what might be making those sounds. If you're outside, blindfold yourself and tell a friend what you hear. Once you've heard 10 sounds, trade places. Do you hear the same sounds as others?

OR

- Listen to sound boxes. Take an empty container with a lid and 10 different objects, things such as a coin or a spoonful of rice. Look at the objects with a friend. Then blindfold her and put one of the objects in the container. Put on the lid and shake it. Can your friend guess which object is making noise? Do this for three objects, then switch places.

OR

- Wear safety earplugs to understand what it's like to lose some of your hearing. Listen to three different sounds for three minutes each, such as chirping birds or your favorite song, with the earplugs in. Take the earplugs out, and listen for a little bit longer. Talk about what it is like to hear the same sounds, but differently.

### Step 3: Put Your Nose To Work

**One person might think something smells really good, while the next person thinks it smells really bad—everyone smells in a different way. Try out your nose in one of these choices.**

CHOICES — DO ONE:

- Follow a friend using only your nose! Have an adult help you find something with a strong scent, like a lemon slice or a cinnamon stick. Blindfold a friend, hold the item close to her nose, and see if she can follow you a short distance using her sense of smell. Now switch, and see if you can follow her.  
OR
- Play a smelly game with your friends. Find five containers with lids (old yogurt containers will work well) and mark a number on each. Put an item with a strong smell—such as an orange peel or coffee—into each container and poke holes in the lid. Write down the number of each container and what's inside. Now rearrange the containers and try to identify the item that is in each one, just by smell. Who can guess the most smells correctly?  
OR
- Try sniffing out three different foods. Put on a blindfold. Have someone else hold three different—but similar—foods under your nose, like three cheeses (such as cheddar, Swiss, mozzarella) or three kinds of citrus fruit (such as orange, grapefruit, lime). Guess what you think each food is, then find out if you're right. For More FUN: First, taste each food. Then, hold your nose and have someone else feed you each one. Do they taste the same as they did when you could smell them?

### SIDEBAR: Fun Smelling Facts

- Girls can smell more scents than boys can
- A human nose can recognize up to 10,000 different kinds of smells
- Every person's body has a unique smell—except for identical twins, who smell the same!

## SIDEBAR: Fun Food Facts

- Sweet, salty, bitter, and sour are not the only tastes. There is a fifth taste called “umami.” You can taste it in ketchup, Parmesan cheese, and pepperoni.
- Some vegetables taste sweet! What about carrots, beets, and red peppers?
- Other than the blueberry, there is no blue food in nature. Seeing food dyed blue can spoil your appetite.

## Step 4: Take A Taste Test

**To use your sense of taste, you need your mouth and your tongue. These body parts taste food and then send signals to your brain to let you know what the flavor is and whether or not you like it.**

CHOICES — DO ONE:

- Do a taste test with salty, sweet, bitter, and sour foods. Taste at least one thing with each flavor. Talk about which flavors you like best and which ones you like least. Do any of the foods have more than one flavor?  
For More FUN: Scientists know that we need saliva, or spit, to be able to taste. Try your taste test again, but wipe your tongue dry this time. Is anything different?  
OR
- Look at the taste buds on a friend’s tongue. Without touching her tongue, use a safe, plastic magnifying glass to see her taste buds. Then let her look at yours. Talk about what they look like, and find out the scientific name for a taste bud and how many are on one tongue.  
For More FUN: Find out what makes someone a “supertaster!”  
OR
- Explore how sight influences taste. With an adult, dye one food a different color than it was originally. You can try making blue milk or pink pancakes! Taste the food with its normal color, then its new color. Talk with your friends or family about whether it tastes different to you, and if you like the taste better if the food is a different color.  
Tip: Ask your friends if anyone has food allergies. If so, be sure to stay away from those foods!

## Step 5: Touch and Feel

**You use your hands and fingers for your sense of touch, which helps you feel different textures or surfaces. Feel your way through this step by doing one of these activities.**

## CHOICES — DO ONE:

- Find things that have different textures and create a “feel wheel.” Cut a big circle out of poster board and divide it into eight pie slices. In each slice, glue something that has a different texture, like smooth, rough, sticky, bumpy, hard, squishy, or hairy. Then ask your friends and family to close their eyes and guess what each item is.

OR

- Try an arm or leg touch test. Glue some thin thread or fishing line to a Popsicle stick. Gently touch a blindfolded person with the thread. Can she feel it? Why or why not? Then swap places so you can take a turn.

OR

- Try Braille. When someone is missing their sense of sight, they might read with their sense of touch by feeling a set of raised dots. These dots are part of a special system called Braille. Use the alphabet to figure out how to write your name in Braille, and then write it with dots of glue on the boxes below.

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