

# Sensory Awareness



## Educational Elements

### Key Concept:

Using our senses for greater awareness

### Overview:

*Sensory Awareness* is a lesson designed to help leaders show youth how to develop a more acute use of their senses. Participants will work as a group and individually to identify objects and smells using more than just one of their senses.

### Age Level:

Ages 5 to 9

### Life Skills:

Critical thinking, problem solving, learning to learn

### Success Indicators:

After participating in this lesson, learners will be able to:

- ▶ Identify the five major senses we possess as humans.
- ▶ Explain how we use each sense.
- ▶ Explain why our senses are important.
- ▶ List some ways we use our senses.

## Materials & Methods

**Preparation Time:** 15–30 minutes

**Lesson Time:** 90 minutes

**Space:** Anywhere

### Materials:

- Small box such as a shoe box to be used as a touch box (construction directions included), or a thick towel
- Variety of objects (leaf, acorn, stone, pine cone, stick, marble, eraser, rubber worm, putty, feather, or other objects)
- Empty film canisters, diabetic test strip canisters (available at hospitals and clinics), or small reclosable plastic bags
- Various scents (vanilla, perfume, cinnamon, coffee, hunting scents, vinegar, garlic, dried orange peels, rose petals, or other scents)
- Cotton balls
- 1 blindfold (one for each participant)
- Various taste items (optional): candy broken into small pieces (root beer, butterscotch, sour), bitter chocolate, unflavored colored water, salt, vinegar, hot sauce, or other food items

## Background Information:

As humans, we rely on our senses for so many things in our daily routines that we often take them for granted and perform tasks without realizing how much we use them throughout the day. Some of our senses are used more regularly than others. For example, our sense of sight might influence whether or not we eat something. If it doesn't look good, we may not eat it. Consciously using our senses can help us understand how much we rely on them in our daily lives. A greater use and awareness of our senses can help increase our sensitivity to outdoor environments.



## Vocabulary:

**sense** – Any of the abilities of the body to become aware of a stimulus including sight, smell, hearing, taste, and touch.

## Instructions:

### Before the Meeting:

In advance, you will need to:

1. Check for food allergies for both smelling and tasting activities before beginning.
2. Review the lesson and gather any supplies you will need.
3. Construct a touch box. This can be done by cutting a hinged door in a small box (such as a shoe box) so a participant can reach a hand inside without seeing into it. The box can be decorated for additional anticipation. Inside the box, place several different objects, such as those mentioned in the materials list. Placing objects under or within a thick towel can work, too.
4. Prepare several smelling canisters (or reclosable plastic bags). Put a different scent in each container, add 1 or 2 cotton balls in each and close the container; the cotton ball will help keep the scents from spilling when the containers are opened. Some scents may not need a cotton ball. Scents should provide a variety of pleasant and not-so-pleasant smells.
5. Have some type of blindfolds available. Blindfolds can be purchased or easily made from towels or old shirts. Be sure they are washed before each use!
6. If you are conducting the optional tasting activity, gather your food items but do not display them.

### During the Meeting:

1. Begin by asking participants the following questions:  
*How many senses do you have? Can you name them? What one do you use most? How often do you use each of your senses?*
2. Explain to the participants that they are all going to take a short walk.
  - ▶ Participants will work in pairs, with one blindfolded and the other giving verbal directions, telling the blindfolded partner where to walk.
  - ▶ The seeing partner may not touch the blindfolded partner.
  - ▶ The walk should only be a short distance but can be in any safe location available. Be sure to keep safety in mind.
  - ▶ Have the partners switch roles halfway into the walk so everyone has an opportunity to perform both tasks.
  - ▶ Ask the following questions: *How did you feel walking without seeing? Was it easy or difficult? What made it easy or difficult? What would make it easier? Did your partner do anything special to help?*

**3.** Next, all participants will be blindfolded.

- ▶ Have each participant smell each of the prepared containers, one container at a time.
- ▶ Do not let any of them yell out what they think it is!
- ▶ After everyone has had an opportunity to smell the first container, ask them what they think it is. Continue this process with each smelling container.
- ▶ Ask the following: *What clues helped you identify the smell? Did some containers smell better than others? Which did you like? Do you think animals would like any of these smells? Why or why not?*

**4.** Next, have participants explore the touch box, blindfolded or not.

- ▶ Have each participant reach into the box to feel the objects inside. Allow each participant enough time to investigate with his or her hand what the objects might be.
- ▶ Do not allow them to yell out what they think is inside!
- ▶ After all have had an opportunity with the touch box, ask for suggestions on what is inside.
- ▶ Ask the following questions: *What helped you determine what is inside? What was easy to identify? Was anything difficult to identify? Were you uncomfortable reaching into something you couldn't see into?*

**5. OPTIONAL:** Before doing this optional section of the activity, check for food allergies. (Note: Some participants may not want to take part in tasting. Do not force them to participate but allow them to get involved with anyone who does.) Have participants wear blindfolds and taste the various food items available to see if they can identify them. You may need to use caution with some of the items such as hot sauce.

- ▶ Ask the following questions: *What tasted good and what was unpleasant? Why or why not? Did seeing the item influence if you wanted to taste it or not? Were you surprised at any of the flavors? Why or why not?* Explain how the tongue has different taste buds for various flavors.

**6. OPTIONAL:** Allow participants to sit in an area away from one another for 5 minutes. This can be done inside or outside; however, outside is best to allow a connection to the natural environment.

- ▶ Ask participants to be still and observe their surroundings, using as many of their senses as possible.
- ▶ Gather together and ask participants the following: *How many senses did you use? What did you hear, see, smell, or touch? Did you see or hear anything that surprised you or that you might not have observed if you hadn't been sitting still? Did you feel anything special?*

## Check for Understanding:

Ask the group the following questions:

- ▶ *Can you name the five senses?*
- ▶ *Can you give examples of how we use our senses?*
- ▶ *How do you think animals use their senses?*

Explain animal adaptations that take into account their unique senses, such as:

- ▶ Special ears for hearing – deer, mice, owls
- ▶ Acute sense of smell – deer, bears, dogs
- ▶ Acute vision – owls, eagles, hawks
- ▶ Taste – many carnivores and birds (Some animals do not have taste, allowing them to eat lots of different things.)
- ▶ Touch – fur, whiskers, hair (Most cats have whiskers that help them navigate in the dark.)

Finally, ask participants how learning about their senses might help them become more aware of their surroundings and to appreciate the natural wonders of our environment. This may help participants develop an improved sense of stewardship toward the environment.

## Ways to Extend:

- ▶ Try to identify ingredients of a food item by only using sight and then by only using smell. Which worked better?
- ▶ Try doing some daily routines blindfolded such as brushing your teeth, making a sandwich or walking up stairs.

# Alignment to Science and Engineering Practices

## How does 4-H increase science literacy?

Nationally and in Michigan, 4-H has long enjoyed a reputation for engaging young people in positive, experiential (hands-on), and nonformal activities that are inquiry-based. The lessons in the *4-H Science Blast* series can be used to enhance classroom science education in Michigan and elsewhere. The lesson activities are aligned with the eight Scientific and Engineering Practices (SEP) from *A Framework for K-12 Science Education* (National Research Council, 2012, p. 42).

The Michigan State Board of Education adopted a set of new state science standards in late 2015 that are based on the SEP. This activity's alignment to the practices was determined by Tracy D'Augustino, Michigan State University Extension educator.

## Alignment to the National Research Council Science and Engineering Practices

Science & Engineering Practice	Action	Activity Step
▶ Asking questions and defining problems		
▶ Developing and using models		
▶ Planning and carrying out investigations	Participants use their senses to explore their world during the walk while blindfolded and in the smelling activity, the touching activity, the tasting activity, and the stillness activity.	All activities
▶ Analyzing and interpreting data	Participants analyze information from their senses and attempt to identify unknown items.	During the Meeting 3-5
▶ Using mathematics and computational thinking		
▶ Constructing explanations and designing solutions	Participants identify unknown items.	During the Meeting 3-5
▶ Engaging in argument from evidence	Participants explain how they identified the unknown items the same way they did using the observations they made with their senses.	During the Meeting 3-5
▶ Obtaining, evaluating and communicating information		

## References & Resources:

Doorley, R. (n.d.). *Sensory play: Early exploration through the senses*. Retrieved from PBS Parents website <http://www.pbs.org/parents/child-development/sensory-play/developing-and-cultivating-skills-through-sensory-play/sensory-play-early-exploration-through-the-senses/>

*Five senses: Facts*. (n.d.). Retrieved from Idaho Public Television Science Trek website <http://idahoptv.org/sciencetrek/topics/senses/facts.cfm>

National Research Council. (2012). *A framework for K-12 science education: Practices, crosscutting concepts, and core ideas*. Washington, DC: National Academies Press.

## Acknowledgements:

**Author:** Nick Baumgart, Environmental and Outdoor Education & Shooting Sports Extension Educator, Michigan State University Extension