

# The Other Senses

## FRAMEWORK

I. Scientific and Engineering Practices 4,8

II. Cross-Cutting Concepts

III. Physical Sciences LS1

## SKILLS/OBJECTIVES

- There are other senses besides the five ones children usually learn. Students will participate in a series of activities to learn about some of these ‘other senses’
- Learn about additional senses
- Learn that not all senses are directly linked to external organs (eyes, ears, etc)
- Learn how senses can be heightened by their interactions with each other

## MATERIALS

- • Blindfolds—enough for all the students expected
- • 4 thermoses—one with hot (warm) water, one with room temperature water, one with cold water, one with icy water.
- • Post-it notes—4 different colors
- • Exercise ball
- • See-through water bottle (with water in it)
- • Two thermometers
- • Worksheet (attached)
- • Stopwatch

## NOTES

- This is aimed mainly at very young students who may have relatively recently learned about the five senses in school. Depending on the age of the students, some of these activities may be harder than others—the ‘Time’ activity in particular may be difficult to do if the students probably do not yet know how to tell time.
- These activities can be done out of order, with the exception of ‘Temperature’, which needs to go first in order to ensure that the water in the thermoses stays hot.
- Similarly, any of these activities can be cut in the interests of time without significantly affecting the overall flow and message of the lesson.

## BACKGROUND

- Ask students to name their five senses, and then explain that there are other senses besides those, and that maybe they've heard of them before.
- These senses are different because they don't use just use one part of the body (eyes for seeing, ears for hearing, etc.) Some use parts inside your body, some use parts outside, some use both.
- Explain that just like some people can hear very soft noises or see very far away things, some people also are very good at some of these 'other senses'

Activity #	Temperature
Materials	-4 thermoses (one with hot/warm water, one with room temp, one with cold, one with icy) -Colored post-it notes -Paper -2 thermometers
Worksheet	N

- **Tell students** that every day when they walk outside, right away they know whether its hot or cold, and that's a sense
- **Put a different colored post it on each thermos**
- **Each student will put a hand/finger in the thermos and to record on a paper the post it colors on the thermoses in order of temperature.**
- Explain that our sense of temperature is relative and can be fooled like other senses (optical illusions or holding your nose so you can't taste)
- Each student place one hand in the hot water while placing the other in cold water
- When they next put their hand in room temperature water, it will feel different than before
- Place a thermometer in the room temperature water, and the second on the table.
- Ask students whether the room is warmer or colder than the room temp. water
- Explain what a thermometer is and what it does – a higher number means that it is hotter
- Ask them to read the thermometers to determine which is hotter

Activity #	Balance
Materials	-Exercise ball -See -hrough water bottle with water in it
Worksheet	N

- Explain that balance is actually a sense that the brain needs to control.
- Students line up and try to balance on the exercise ball for as long as possible.
- **OLDER STUDENTS:** Explain how sense of balance works physiologically, using the bottle of water as a model (the surface of the water is always level no

matter where the bottle tilts, indicating which direction is down. Explain how the inner ear also uses fluid to maintain balance)

Activity #	<b>Direction</b>
Materials	-Blindfolds
Worksheet	N

- To demonstrate a sense of direction, ask students to point towards their house.
- Explain that direction uses other senses to help, like sight. Ask them what you can use to find out where you live (compass, map, etc.)
- Tell students where a major geographic feature, such as Main Street, is, and ask them if that helps them point to their house.
- Ask students to stand up and notice where they are in the room and which direction they are facing. Blindfold all students and ask them to spin. When they stop, tell them to point to the door. Then tell them to remove the blindfold.
- Ask those who got it right how they did it. If they said they listened for where you were, explain that a sense of direction also can use hearing to help.
- If some students actually did that, blindfold everyone again and tell them to spin, and then move around the room quietly and tell them to stop and point to the door.

Activity #	<b>Time</b>
Materials	-Stopwatch
Worksheet	N

- Ask: Who isn't wearing a watch?
- Ask: How much time do you think has passed since I got here?
- Show students stopwatch and explain what it is.
- Tell everyone to face away from the classroom's clock, and if they have watches to flip them upside down.
- Tell them you're going to put the stopwatch on for ten seconds, and then have to slap the table when they think exactly ten seconds have passed.
- Do a trial run first

Activity #	<b>Kinesthetic</b>
Materials	-Blindfolds
Worksheet	N

- It's a big word! Ask them to try to pronounce it.

- Kinesthetic is how you know where all the parts of your body are.
- Ask them to close their eyes and try touching their noses.
- Blindfold students and play Simon Says with related tasks—put fingertips together, put hand on head, etc.

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### **CONCLUSIONS**

There are other senses too! But you don't always think about them. For example, there is a sense that always keeps track of your breathing.

Animals have some senses we don't. For example, sharks can sense electricity.

How many senses? Not five! Many!