

# Sense of Taste, Hearing, Smell and Touch

## Summary

Students move through stations studying the sense of taste, hearing, smell, and touch. Students are blindfolded and try and solve a smell mystery. Students reach under a blanket and try to identify objects through their use of touch. For taste, students try all four tastes of salt, sour, sweet and bitter. Finally, they use their sense of hearing to solve a hearing matching game.

## Time Frame

1 class periods of 45 minutes each

## Group Size

Small Groups

## Materials

Look through what you have in your home before you buy materials. Many items from home could be used for the smell and hearing station that you shouldn't need to purchase separate items.

Smell station: Use 5 blindfolds, bandannas work great or cut up old sheets that you may already have. Small storage containers of foods such as: popcorn, dill pickle juice, root beer, oranges, cinnamon, lemon juice, bananas

Taste station: \*\* Check student allergies and leave it up to students to decide what they want to taste. Make solutions of salt in water, sugar in water, lemon juice, tonic water for bitter taste; small pieces of dill pickles for sour, mini pretzels for salty, small pieces of green apples for bitter and candy corn or some other candy for sweet.

Hearing station: Use plastic Easter eggs to make a sound matching game. Find 10 objects such as: cotton balls, rice, pennies, nuts, cheerios etc. These items can each be placed in two Easter eggs. Give each Easter egg a number and place the matches on an answer key.

Touch station: Large cookie sheet with a towel to cover it. Place about 20 objects that students can recognize by touch alone. Some examples are: toothbrush, toy car, bouncy ball, penny, pencil, cotton ball, etc. They should differ in size and texture so students can discuss these attributes as they guess what they are touching.

## Background for Teachers

Taste -- Saliva in our mouth breaks down food. We taste food through about 10,000 taste buds on our tongues. Taste buds sense salt, sweet, sour and bitter. Nerves then send these messages to your brain to tell you what flavor you are tasting.

We smell through special cells in our nose. These cells recognize specific smells and allow our brain to recognize foods based on their smell alone.

We hear through vibrations felt on tiny cells in our inner ear.

Our sense of touch is felt everywhere we have skin. There are special nerve endings that sense cold, heat and pain as well as other sensations.

## Intended Learning Outcomes

Framing questions. Conducting investigations. Drawing conclusions.

Sharing ideas with peers. Connecting ideas with reasons.

Differences in conclusions are best settled through additional observations and investigations.

## Instructional Procedures

### Pre-lab discussion:

Show the students a single serving bag of fruit snacks. Rustle the bag to demonstrate our sense of hearing. Look at the colors of the bag for our sense of sight. Hand each child a fruit snack. Have them smell it for the sense of smell, notice that it is squishy with their sense of touch and eat it for the sense of taste!

### Instructional Procedures:

#### 1. Sense of smell

-- Help the students put on blindfolds. Hold the various containers up to their noses one at a time. See if they can identify the smell. Have all the students wait until everyone has smelled the food before they say the name out loud. Have them describe whether they like or don't like the smell. Repeat for all the smells. Discuss that our sense of smell comes through our nose.

#### 2. Sense of taste

-- Have students either taste the liquids on cotton swabs or take actual bites of the foods. See if they can predict and identify them as either salty, sweet, sour or bitter. If students don't want to taste a food, do not push it. If they need to, have them get drinks of water between some of the foods.

#### 3. Sense of touch

-- Have students put their hands under the towel on the table and try and identify different objects they are touching. They should each take turns and guess what the object is and then pull it out from under the towel to see whether they were correct. Have them describe the texture of the objects, e.g., rough, smooth, flat, wrinkly etc. Explain that our sense of touch comes through our skin.

#### 4. Sense of hearing

-- Start with one student and have them pick up two eggs from the basket. They should see if they sound the same. If not, have them hold onto one egg and pull out the other eggs one at a time until they get a match. Put that match aside and let the next student find a match. See if they can guess what is inside the eggs making the sounds. When they're done, tell them what is in the eggs. Explain that our sense of hearing comes through our ears.

### Bibliography

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