

The Five Senses: Touch

Strand Scientific Investigation, Reasoning, and Logic

Topic Investigating the sense of touch

Primary SOL K.2 The student will investigate and understand that humans have senses that allow them to seek, find, take in, and react or respond to information in order to learn about their surroundings. Key concepts include

- a) the five senses and corresponding sensing organs;
- b) sensory descriptors used to describe common objects and phenomena.

Related SOL K.1 The student will demonstrate an understanding of scientific reasoning, logic, and the nature of science by planning and conducting investigations in which

- a) basic characteristics or properties of objects are identified by direct observation.

- K.4 The student will investigate and understand that the position, motion, and physical properties of an object can be described. Key concepts include
 - c) textures and feel of objects.

Background Information

The sensing organs—eyes, ears, nose, tongue, and skin—are associated with the five senses. Using the senses, we can make observations about the world. To communicate what is observed, descriptors are used.

Our skin is responsible for our sense of touch. Our skin sends information to the spinal cord, which sends information to the brain about objects that are touched. The most common receptors are heat, cold, pain, and pressure.

Materials

- Large plastic zip bags, one per two-student team, containing the following:
 - cotton ball
 - plastic fork
 - small piece of corrugated cardboard
 - poster board square
 - felt square
 - piece of sandpaper
 - math connecting cube
 - eraser
 - block
 - rock
 - toy car
 - small ball
- Paper plates (two per team)
- Lunch-size paper bags – one per student

Vocabulary

five senses, skin, fingers, hands, touch, rough, smooth, hard, soft, cold, warm, hot

Student/Teacher Actions (what students and teachers should be doing to facilitate learning)

Introduction

1. Show students a brown bag containing a mystery object such as a math connecting cube, eraser, or block. Ask students: “What’s inside? How could we figure out what’s inside without looking? What other clues would help?” Brainstorm ideas. Conclude that touching would probably help the most, giving us the most information.
2. Pass around the brown bag, and have students feel it and share what they felt, using these clues to make predictions about what might be in the bag. Then look and see what is inside.

Procedure

1. Discuss how our sense of touch keeps us safe. For example, it tells us if something is too hot to touch. Brainstorm a list of things that are hot and cold.
2. Describe the class rules for the team activity. (It is suggested that you do this process of describing and guessing as a class once or twice to demonstrate how to play before the two-student teams play the game.)
 - Students will work in teams of two.
 - Each team will have a plastic zip bag with several objects in it.
 - The student team members will sit back-to-back. Team members may NOT turn around during the object description time of the activity.
 - Team members will take turns giving descriptive words about an object he/she has selected. The words given as a clue should be a word that describes how the object feels (not how it looks!).
 - One team member will take the plastic zip bag and select an object from the bag to describe to his/her partner. They may take that object out of the bag to help determine the descriptive words they will use.
 - The “describer” will say one descriptive word about the object. His/her partner will make one guess about what he/she thinks is being described to him/her.
 - If the “guesser” is able to identify the object, the two partners switch roles and begin the process again.
 - If the guesser does NOT identify the object, the describer gives another descriptive word clue. The partners continue the process until the guesser identifies the object. (You may want to set a limit as to how many clues the describer gives before the partner identifies the object and the team members change roles.)

Observations and Conclusions

1. Give each team a “science mat” (paper plate) and a second paper plate to be used for covering their science mat once they have identified a described object. Ask each team to place all the items from their zip bag on the science mat and place the second paper plate next to it.

2. Explain to students that they are going to play another identification game by listening to words that describe how objects feel. Tell them that you will say a descriptive word, and as a team, they must identify what you are describing. To identify the object, they should whisper only to their team member which object they think you are describing. If they agree, they should cover their science mat with the second paper plate as a signal that they have finished.
3. Below are some sample descriptive words you can use. You can put a limit on the number of clue words you give if desired.
 - Cotton ball: soft, fluffy
 - Rock: hard, smooth, bumpy, sharp-edged
 - Poster board: smooth, slick, very thin
 - Sandpaper: rough, bumpy, scratchy
 - Corrugated cardboard: bumpy, hilly
 - Felt: smooth, soft
 - Plastic fork: smooth, pointy, flexible, straight, curved
4. Once all or most of the teams believe they know what the object is, call on a team to give their answer.

Assessment

- **Journal/Writing Prompts**
 - Divide a page of your journal into four boxes. As your teacher calls out four descriptive words—one at a time for each box, draw a picture of an object that fits the description.

Extensions and Connections (for all students)

- Send home brown paper bags for families to play “mystery object” using only their sense of touch. One person places a mystery object in the bag; another person feels the object and guesses what the mystery object is.
- Place a large plastic cup in a clean gym sock to create a “feely bag” for a classroom center. (By using the cup, students cannot see the outline of the object, and by placing the cup in the sock, students cannot see into the cup.) Make several “feely bags,” and label each sock with a number. Place a mystery object in each sock. Have students put their hands in the sock and feel the object but NOT take the object out. Have students draw what they think is inside each of the socks.
- Have students make textured paintings with sand, glitter, paint, fabric, and other three-dimensional objects.

Strategies for Differentiation

- Use a software program to create visual picture symbols for vocabulary words.
- Have an adult touch items to each student’s hand.
- Have an adult place items in a shoebox, and have students put their bare feet in the box to feel the objects.
- Lead students on a “Touch Walk” around the school campus to touch a variety of textures. During the walk, ask them, “How does that feel? What does that feel like?” to evoke descriptors.
- Create a picture classification system of opposite textures (e.g., hard, soft; smooth, rough).

- Use a bar graph to chart how many items are in each category (e.g., hard, soft).
- Pair students to complete activities.
- Pair students to sort objects or magazine pictures of items with varying textures.