



Sense of Smell, Hearing, and Taste

Boys and Girls Club After School Science
NSF Center for Chemical Innovation
Chemistry at the Space Time Limit (CaSTL)
<https://www.castl.uci.edu/>

Standard(s) Addressed: Investigation and Experimentation
Children will observe common objects by using the five senses.
Children will describe the properties of common objects.

Lesson Objective: Children will be able to observe common objects and describe their properties through investigation and by participating in different stations/centers focused on the senses.

Materials Used:

- a variety of objects for the different stations/centers
- For Smell station/center – different scents (peppermint, chocolate, cinnamon, and coffee) and pictures of the different smell objects.
- For Taste station/center – pictures of salty and sweet foods (salty include pictures of popcorn, pretzels, tortilla chips, and peanuts; sweet include pictures of strawberries, grapes, horchata, and watermelon—be sure to include healthy snacks, not junk food).
- For the smell station, use a small container for each scent. For the peppermint scent, squeeze extract onto a cotton ball and then place in the container. For the chocolate scent, use cocoa powder, sprinkle onto a cotton ball and then place in container. For cinnamon, sprinkle some cinnamon onto a cotton ball and place in container). For coffee, put coffee grounds directly into the container.
- CD player to play the CD for the sound guessing game

Classroom Management:

Conversation: quiet indoor voices

Help: ask the teacher, ask helpers/volunteers

Activity: work with group of three or four children, brainstorm/answer questions

Movement: groups move from station to station

Participation: working well in groups, doing task, working cooperatively

Assemble enough materials to create stations for small groups for Explore.

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ENGAGE: *Connect to Prior Knowledge and Experience, Create Emotionally Safe Learning Environment, Preview New Vocabulary* Estimated time: 5 min

Description of Engage: Teacher reminds children about lesson from previous week: what do scientists do and how do they observe the world. Teacher reminds the children that the five senses can be used to help us figure out what objects are.

Teacher's Role	Teacher Questions	Children's Role
<p>Teacher reminds children about the last visit.</p> <p>Ask children questions about the five senses.</p> <p>Write children's responses to teacher's questions up on the board.</p> <p>Tell the children these are the senses we will investigate this week.</p>	<p>Remember the last time we were here, we discussed scientists and what scientists do.</p> <p>Who can tell me one thing about scientists from last time?</p> <p>What part of our body do we use to listen to people talking? Or to birds singing? Or to a fire truck going by? And what sense do we use to listen to all these things?</p> <p>What part of our body do we use when we eat food? What sense do we use when we eat?</p> <p>What part of our body do we use when we pass some flowers? What sense do we use to observe flowers?</p>	<p>Answer the teachers' questions. Answers will vary.</p> <p><i>"Ears". "Hearing".</i></p> <p><i>"Mouth, tongue". "Taste".</i></p> <p><i>"Nose". "Smell"</i></p>

EXPLORE: *Hands-On Learning, Contextualize Language, Use of Scaffolding (Graphic Organizers, Thinking Maps, Cooperative Learning), Use of Multiple Intelligences, Check for Understanding* Estimated time: 20 - 30 min

Description of Explore: In small groups, children will investigate different senses (sound, smell, and taste). Children will use the senses to identify and guess common object(s). At the smell station/center, children will smell different objects and then match them to a

<p>picture of the object. At the sound station/center, children will play a guessing game with sound clues (use Saint Saens music from the Carnival of the Animals and have the children try to guess the animal described by the music). At the taste station/center, children will look at pictures of familiar foods. The foods will either be salty or sweet, by knowing what each of the foods tastes like, children will categorize the foods as salty or sweet.</p>		
Teacher's Role	Teacher Questions	Children's Role
<p>Divide the children into small groups. Explain to the children what to do for the different senses. Ask children to confirm instructions.</p> <p>Observe, guide and manage children as they explore the different stations. Ask children questions at the different stations.</p>	<p>Do you know what to do at station one? Call on a student and ask them what they are supposed to do at station one. Repeat for other stations.</p> <p>What are you noticing/discovering about the object(s) at this station? What sense are you using? What did you learn about the object?</p>	<p>Listen to teacher and answer questions.</p> <p>Children participate in the different stations and make observations about the different objects they are examining/exploring with each sense.</p>
<p>EXPLAIN: <i>Listening, Speaking, Reading, and Writing to Communicate Conceptual Understanding</i> Estimated time: 5-10 min</p> <p>Description of Explain: After exploring the different stations, teacher brings the whole group together and children will report/share their findings. The teacher will help lead children to understanding how using their senses can help them observe and identify object(s).</p>		
Teacher's Role	Teacher Questions	Children's Role
<p>Teacher asks whole group questions about what they discovered and writes the findings down on the board.</p>	<p>Which of your five senses were you using at station/center 1? Which of your five senses were you using at station/center 2? Which of your five senses were you using at station/center 3?</p>	<p>Answer the teacher's questions and share their findings from each station. As a class, the children help complete the findings chart.</p> <p>"We were using our sense of smell at station/center 1. We were using our sense of taste at station/center 2. We were using our sense of hearing at station/center 3."</p>
<p>EVALUATE: <i>Thinking Maps, Summarize Lesson and Review Vocabulary, Variety of Assessment Tools, Games to Show Understanding</i> Estimated time: throughout</p> <p>Description of Evaluate: Children discuss the objects and their senses during the Explore and the Explain. Children will then guess the object(s) from what they have discovered from using their five senses.</p>		

Teacher's Role	Teacher Questions	Children's Role
<p>Teacher helps children think about the different things the class has found out about the object(s) and how each station/center and the sense they used there helped them learn something specific about the object(s). Teacher can test this by asking children what they would have learned about the object(s) at the different stations if they had been asked to use a different sense.</p> <p>Teacher can close this section with idea that different senses tell us different things about objects, so that we can learn about them and know what they are.</p>	<p>What if you used smell at the taste station/center instead, would you have been able to learn about the object(s)? Repeat this question with the other stations/centers mixed up. For example, using taste at the sound station/center, using sound at the smell station/center?</p>	<p>Individual children and the class participate in answering the teacher's questions.</p> <p><i>"No, we would not have been able to learn about the object(s) if we had tried to use our sense of smell at the taste station/center".</i> For the repeated questions the answer will also be <i>"no"</i>.</p>
<p>EXTEND: Group Projects, Plays, Murals, Songs, Connections to Real World, Connections to Other Curricular Areas</p> <p style="text-align: right;">Estimated Time: 10 min</p> <p>Description of Extend: Children sing "5 Senses Song" to the tune of "Jingle Bells". If time permits, children go outside to observe other objects and tell their partners what objects they can smell and what objects they can hear.</p>		
Teacher's Role	Teacher Questions	Children's Role
<p>Teach/go over song with children.</p> <p>(Play I Spy, if time permits) If time permits, children go outside and observe objects. What objects could they describe using their noses?</p> <p>What objects could they describe using ears?</p>	<p>Five Senses Song: Five senses, five senses 1, 2, 3, 4, 5 Sight, smell, taste, touch and sound We need them to survive! (Repeat verse twice).</p> <p>Work in your groups, look around. Tell each other what you can observe using your noses.</p> <p>What can you observe using your ears?</p>	<p>Learn and sing song.</p> <p><i>"I can smell something spicy."</i></p> <p><i>"I can hear a loud roaring sound."</i></p>

Name _____

Sense of Smell, Hearing, and Taste

Smell Station

Cup Number	Object
1	
2	
3	
4	

Taste Station

Salty	Sweet

Hearing Station

Music	Animal
1	
2	
3	
4	
5	
6	
7	
8	

Common Characteristics of Lesson Plans

Get Children into the Learning--Connect to Their Prior Knowledge

Exploration/Investigation/Hands-On Learning

Making Meaning--Teachers and Children Together

Evaluation/Assessment

Extension to the Real World or Other Curricular Areas

Other Aspects to Consider:

**The lesson is Child-Centered--the child is listening, speaking, reading, writing and drawing.
The child is thinking.**

There is more Child Talk than Teacher Talk.