

Sense of Sight and Touch

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 two 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:

- Pencils
- Whiteboard markers to script children's words in Engage
- for sight station/center: different coins (quarters, dimes, nickels and pennies and magnifying glasses). For touch station/center: (tennis ball(s), towel, rock(s) and book)
- bags for the object(s) at the touch stations/centers (to hide the object so the children can focus on figuring out what it is by using their sense of touch)
- small baking cups, like for cupcakes or muffins, to hold the coins at the sight station/center
- a set of orange objects with different properties hidden in paper bags for Explore

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: 15 min

Description of Engage: Team introduces itself and tells children why we are there. Teacher asks children what they think scientists do and what tools they think scientists use. Scientists observe the world around them and they use their senses. They use all their senses, not just their eyes. Teacher introduces the idea that the five senses can be used to help us figure out what objects are. Scientists also describe what they observe in detail. Teacher tells children that they are going to start acting like scientists, using their senses and using detail to describe what they see.

In small groups, children will investigate different senses (sight and touch). Children will use the senses to identify and guess common object(s). At sight station/center, children will observe similarities and differences between the different coins. At the touch station/center children will feel the objects in each of the four bags. Children will describe how the objects feel. After each child describes an object, the group will make a guess as to what the object is from the description.

Teacher's Role	Teacher Questions	Children's Role
Team introduces itself and explains that we will be doing science with the children.		Answer the teachers' questions. Answers will vary.
Teacher scripts the children's words.	What do you think that scientists do?	"Do experiments." "Work with things."
	What tools do you think scientists use?	"Microscopes, glass things"
	Well, scientists look at the world around them. We say that scientists observe the world.	
	What do scientists use to observe the world?	"Microscopes, telescopes"
	Yes, they use those things but they also use their senses.	
Ask children questions about the five senses.	Do you know what are the five senses?	"Sight, smell, taste, touch and sound".
Write student's responses to teacher's questions up on the board.		

Teacher tells children about the Today you will be acting like game they will now play to scientists and using only 2 of your senses to describe the practice describing objects using words and detail. objects that we will give you. Team A will observe using their eyes for this first part. Team B will observe using their hands only, not their eyes for this first part. Divide the children into small Team A: what sense will groups at their tables. Explain to vou use? the class what to do for the Team B: what sense will different senses. Ask children to you use? confirm instructions. What are you Children receive a worksheet Observe, guide and manage children as they explore the noticing/discovering about and begin to use words to different stations. Ask children the object(s) at this station? describe the object they have questions at the different What sense are you using? been given. Do not name the object— Sight items: quarters, dimes, stations. nickels and pennies just describe it. Touch items: tennis ball(s), The touch items are hidden in separate brown bags which are towel, rock(s) and book numbered. For the items you see, use words to describe size, shape, or color. For the items you only touch that hidden in the bag, use For the touch items, the team words to describe, hardness, can write words on the board for the children to guess the texture, or roughness. items. Tell the others in your team Children share their words the words you used to with their team. describe your object. What did you learn about the object? After the children are done You will switch to observe sharing their words with each the items that you have not yet observed. other, then the teams switch: Team A goes to the touch items and Team B goes to the sight items. Children share their words Again, you will use words to describe the items and share with their team. with your team the words

	you used.	
The child with the most		
different words to describe the		
objects wins a prize.		

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: Each pair of children then gets a bag with a letter on it. Inside the bag are different orange objects. The children will work in their team of two to describe their object using both their sight and their touch. They will keep their object hidden so that others cannot see their object. Only they can see it. They will complete the worksheet with as many words as they can. After they cannot think of more words, then the teachers will collect the worksheets. The children then will take their objects out of their bags and the teachers will read the words to see if the children can guess the object that is described. The children who describe with enough detail for others to guess without naming the object will win a prize. The children who guess correctly will win a prize.

Teacher's Role	Teacher Questions	Children's Role
Teacher describes the next activity. The children will be given bags with orange objects in them. They will work with a partner to describe the secret object. The teacher tells the children to use many different words to describe their object.	In this activity, there is a secret object in the bag we will give you. Use as many words as you can to describe the object in your bag but do not tell us what it is. Use sight and touch words to describe the object.	Listen to teacher and work with a partner to describe the hidden object in the bag. They write as many words as they can.
The team that describes the object with a lot of detail will win a prize.	After you finish writing your words, we will take your words and you will show everyone what your object is.	Children give their worksheet to the teacher then take their object out of their bag then place the object on top of the flattened bag so everyone in the room can see their object.
	We will read your words and everyone will try to guess what you described. If someone can guess the object based on your words, both the guesser and the writers will win a prize.	Children cannot shout out but must raise their hand and take turns to tell their guess.

EXPLAIN: Listening, Speaking, Reading, and Writing to Communicate Conceptual Understanding Estimated time: 5-10 min

Description of Explain: Teacher brings the class 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).

Teacher's Role	Teacher Questions	Children's Role
Teacher asks class questions		Answer the teacher's
about what they discovered.		questions.
	Were you acting like	"Yes."
	scientists?	"No."
	How did using your senses help you to describe the objects?	"We talked about the shape and the color." "We talked about rough and
	objects.	smooth."

EVALUATE: Thinking Maps, Summarize Lesson and Review Vocabulary, Variety of Assessment Tools, Games to Show Understanding

Estimated time: throughout

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 by using their five senses.

Teacher's Role	Teacher Questions	Children's Role
Teacher helps children think	How does what the object	Individual children and the
about the different things the	feels like help us figure out	class participate in answering
class has found out about the	what it is?	the teacher's questions.
object(s) and how the sense		
they used helped them learn		Children brainstorm about the
something specific about the		object and the group guesses
object(s). Teacher can test this		what it is.
by asking children what they		
would have learned about the	If you used touch at the sight	"We would have had different
object(s) at the different	station/center instead, what	information, not the same
stations if they had been asked	would you have been able to	information."
to use a different sense.	learn about the object(s)?	
Teacher can close this section	Repeat this question with the	
with idea that different senses	other station/center mixed up.	
tell us different things about		
objects, so that we can learn		
about them and know what		
they are.		

EXTEND: Group Projects, Plays, Murals, Songs, Connections to Real World, Connections to Other Curricular Areas Estimated Time: 10 min

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 see and what objects they can touch.

Teacher's Role	Teacher Questions	Children's Role
Teach/go over song with	Five Senses Song (to tune of	Learn and sing song.
children.	Jingle Bells):	
	Five senses, five senses	
	1, 2, 3, 4, 5	
	Sight, smell, taste, touch and	
	sound	
	We need them to survive!"	
	(Repeat verse twice).	
(Play I Spy, if time permits)		
If time permits, children go	Work in your groups, look	"I see something tall and
outside and observe objects.	around. Tell each other what	brown, and it has green things
What objects could they	you can observe using your	sticking out."
describe using their eyes?	eyes.	
What objects could they	What can you observe using	"I touch something rough and
describe using their hands and	your hands and fingers?	hard."
fingers?		

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Sight Words	Touch Words	
(e.g., size, shape, color)	(e.g., hardness, texture, roughness)	
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Name _____

Name	Letter on Bag
	Sense of Sight and Touch

Boys and Girls Club After School Science CaSTL program at UC Irvine

Sight Words	Touch Words
(e.g., size, shape, color)	(e.g., hardness, texture, roughness)

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 <u>Child-Centered</u>--the child is listening, speaking, reading, writing and drawing. The child is thinking.

There is more Child Talk than Teacher Talk.