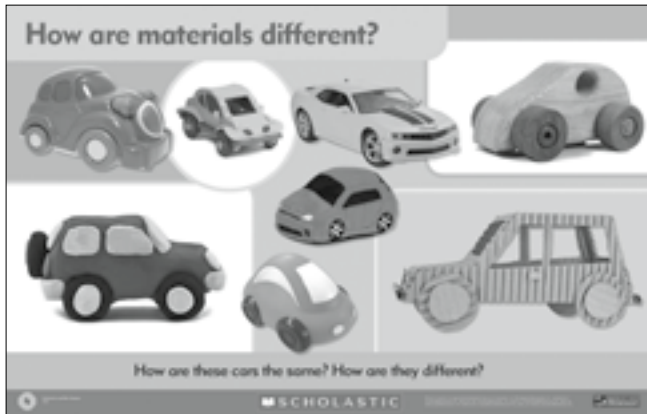


How Can You Describe Materials?



Focus: Students use their senses to observe materials and similar objects made from different materials, and compare the attributes.

Specific Curriculum Outcomes

Students will be expected to:

- 17.0 explore attributes of materials we can learn to recognize through each of our senses [GCO 1/3]
- 3.0 communicate using scientific terminology [GCO 2]
- 16.0 explore how each of the senses helps us recognize and safely use materials [GCO 1/3]

Performance Indicators

Students will be expected to:

- use their senses to identify and compare materials according to the materials' attributes
- use accurate descriptive terminology to describe a variety of materials

NOTES:

Attitude Outcome Statements

Encourage students to:

- willingly observe, question, and explore [GCO 4]

Cross-Curricular Connections

English Language Arts

Students will be expected to:

- communicate information and ideas effectively and clearly, and to respond personally and critically [GCO 2]

Getting Organized

Program Components	Materials	Before You Begin	Vocabulary
• Science Card 4 • Science Card 3 • IWB Activity 4 • Science Card 5 • BLM <i>My Favourite Sense</i>	• collection of toy cars • two hula hoops • students' Science Journals • materials with different textures • pitched musical instruments • variety of materials to manipulate to make sounds • variety of materials to describe • descriptive terminology flash cards • students' Science Folders • magazines (optional)	• Create descriptive terminology flash cards (be sure to include "tasteless," "odourless," "colourless," and "should not be tasted").	• lustre • shape • texture • bitter • salty • sour • sweet

Safety

- Ensure students are not allergic to any food used for tasting.

Science Background

- The taste buds on the tongue pick up four distinct taste sensations: sweet, sour, salty, and bitter. Everything we taste is a specific combination of these four flavours.

ACTIVATE



Identifying Attributes

Display Science Card 4 and have students identify attributes of the toy cars shown, e.g., colour, size, shape, lustre, and texture. You might also provide a collection of actual toy cars for students to examine. Ask parents to send in some toy cars at the beginning of the unit. Provide prompts such as:

- How does the car look?
- How does it feel?
- What is its shape?



- How big is it? How small is it?
- Is it shiny or dull?
- How are the cars the same? How are they different?

Set out two large hula hoops and invite students to sort the collection of toy cars according to various attributes they choose. Have students record the information in their Science Journals.

Descriptive Words

Create an Anchor Chart for the senses on the IWB or on chart paper and record students' descriptive terminology beginning with appearance (see) and texture (touch). Examples might include:

Senses				
See	Touch	Smell	Hear	Taste
bright, dark, dull, dim, clear, round colour words (blue, red, orange, etc.)	smooth, flat, hard, wet, moist, damp, dry, crisp, firm, flabby, gummy, sticky, woolly, spongy, velvety, furry, silky, soft, cold, cool, chilly, hot, warm, sleek, slippery, slimy, greasy, oily, rough, bumpy, jagged, pointed, sharp	stinky, foul, pleasant, sweet, fruity, perfume, floral, pungent, aromatic, putrid, musky, unpleasant, strong, weak, fresh, sharp	loud, soft, quiet, noisy, click, crunch, scratch, tap, honk	sweet, salty, sour, bitter, spicy, yucky, yummy

CONNECT

Texture Book

Provide a variety of materials with different textures and invite students to describe the materials using their senses. Add the descriptive terminology to the class Anchor Chart. Students can create a class "Texture Book" in which they tape or glue a different material on each page. Students label each page (e.g., rough, hard, bumpy, soft, smooth, scratchy, furry, etc.), using the Anchor Chart for reference.

Describing Sounds

Use pitched musical instruments such as a keyboard, guitar, xylophone, etc. to play sounds for students. Ask:

- Is the sound loud or soft (i.e., quiet)?
- Is it high-pitched or low-pitched? How do you know?

Provide small groups of students with various materials and invite them to manipulate the materials to make sounds. When the students have finished investigating in their groups, hold a whole-group discussion and ask students to describe the sounds the materials made (e.g., click, crunch, honk, scratch, tap, etc.). Continue to add descriptive terminology to the Anchor Chart.



IWB Activity:

- Invite students to use Activity 4: *How does it taste?* to organize a set of foods by taste (see the Teacher's Website).

 A worksheet titled "How does it taste?" with four columns for "Salty", "Sweet", "Sour", and "Bitter". Below the columns are various food items for classification.

What I Smell

Display Science Card 3 and ask:

- What do you think these materials smell like?
- Do they all have a smell?
- What items in our classroom have a smell? Can you describe the smell?

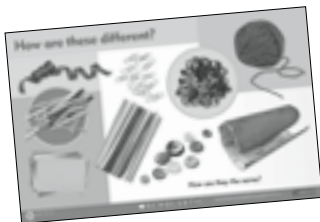
Work with students to develop a list of descriptive terminology for the sense of smell (e.g., stinky, unpleasant, pleasant, strong, weak, fresh, sharp, pungent, putrid, aromatic, musky, etc.). Add the words to the Anchor Chart.

Taste Sensations

Ask students to classify the items in their lunches as salty, sweet, sour, or bitter. Add these descriptive words to the Anchor Chart. Create a chart to list students' suggestions of foods or beverages to fit each category. Provide prompts such as:

- Crackers are salty. What else do you know that is salty?
- What do you eat or drink that is sweet?
- Have you ever tasted a lemon? What did it taste like?
- Dark chocolate can taste bitter. What else do you eat or drink that is bitter?
- Do you eat or drink anything that has no taste?

CONSOLIDATE



Attributes of Materials

Display Science Card 5 and have students identify attributes of the materials shown, e.g., colour, size, shape, lustre, and texture. Students may also describe the sound the items would make, if applicable. You might provide samples of the materials for students to examine. Provide prompts such as:

- What colour is the material?
- What is its shape?
- How long is it? How short is it?
- How does it feel?
- Does it make a sound?

Continue to record descriptive terminology as suggested by students on the class Anchor Chart. Post the completed chart where all students can see it.

Barrier Games

Provide pairs of students with some kind of barrier such as three sides of a cardboard box or an open, upright book. Students sit facing their partner with the barrier set up between them. Each student has a variety of materials hidden on their side of the barrier. Explain that they cannot peek around the barrier! Students take turns using their senses to describe materials for their partners to identify.

Sensory Teams

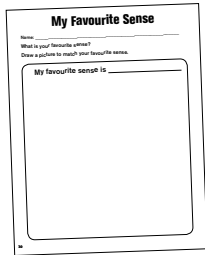
Divide the class into sensory teams for each sense and provide each team with a set of descriptive terminology flash cards. Present a material and have teams select the most appropriate descriptive term to describe it. Ensure cards include “tasteless,” “odourless,” “colourless,” and “should not be tasted.”

Describing Favourites

Have students discuss their favourite sense with a partner. Provide prompts such as:

- **What is your favourite sense? Why is it your favourite?**
- **How do you use your favourite sense?**
- **What item or experience reminds you of your favourite sense?**

Distribute copies of BLM *My Favourite Sense*. Students name their favourite sense, draw a picture of an item or experience that represents this sense, and use descriptive terminology to describe it. Students might take a class survey of favourite senses, collect the data, and make a graph of the class' favourite senses. Have students store their completed BLMs in their Science Folders.



EXPLORE MORE

Make a Menu

Students can create a menu for a restaurant by drawing foods or cutting pictures of foods from magazines. Students can then orally describe the menu items using descriptive, sensory vocabulary. Refer students to the Anchor Chart for descriptive terminology. Or, you may choose to have someone scribe students' descriptions of the foods.

My Favourite Sense

Name: _____

What is your favourite sense?

Draw a picture to match your favourite sense.

My favourite sense is _____