

How Do You Use Your Senses?



Focus: Students use their senses to group and sequence materials according to their attributes. Students will further their understanding of some of the attributes of materials such as colour, texture, shape, and size.

Specific Curriculum Outcomes

Students will be expected to:

- 9.0 sequence or group materials and objects [GCO 2]
- 18.0 communicate procedures and results [GCO2]

Performance Indicators

Students who achieve these outcomes will be able to:

- use their senses to group a collection of stuffed animals or plastic figurines and other materials according to their own criteria
- use their senses to sequence materials according to criteria, for example, sequence paint swatches from lightest to darkest

NOTES:

Attitude Outcome Statements

Encourage students to:

- show interest and curiosity about objects and events within their immediate environment [GCO 4]

Cross-Curricular Connections

Math

It is expected that students will:

- demonstrate an understanding of measurement as a process of comparing (identifying attributes that can be compared) [1SS1]
- demonstrate an understanding of repeating patterns [1PR1]

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 6 • IWB Activity 5 • IWB Activity 6	• stuffed animals or plastic figurines • variety of materials to group and sequence • students' Science Journals • xylophone or water xylophone and wooden spoon	• Set up mini centres to enable students to group and sequence materials by attributes.	• group • sequence

Science Background

- Scientists use their five senses to observe attributes in order to distinguish the differences between materials.

■ Grouping

ACTIVATE

Grouping Materials

Display Science Card 6. Work with students to group the toys by type of stuffed animal. Then challenge students to find different ways to group the items based on attributes. Ask:

- How else could you group the toys?



Encourage students to consider attributes such as colour, texture, shape, etc. Ask students to explain their procedure each time they create a new group.

You might also provide a collection of stuffed animals or other objects such as plastic figurines for students to group according to attributes. Ask parents to send in some plastic figurines at the beginning of the unit. Ask:

- **What is your rule for putting the objects into groups?**
- **Can you use the objects to create a pattern?**

CONNECT

IWB Activity:

- Challenge students to group items based on their own sorting rules using Activity 5: *Using your senses to group* (see the Teacher's Website).

Grouping by Attributes

Set up mini centres to enable students to group materials by attributes. Small groups of students can cycle through the centres or, if students need more assistance, the explorations could be completed for one material at a time with the whole group.

Mini centres could include:

- materials such as paint swatches or crayons to group as dark or light
- water samples to group as salt water, sugar water, or plain water
- various plastic bottles to group according to those that make a sound when air is blown across the top of them and those that don't
- Lego blocks to group by colour or shape
- seeds to group by appearance

Encourage students to share their procedure and results with a partner each time they create a new grouping.

CONSOLIDATE



Drawing a Group

Have students draw one grouping in their Science Journals. For example, students could group crayons as dark colours or light colours, then use the crayons to draw it. Ask students to explain their sorting criteria to a partner.

■ Sequencing

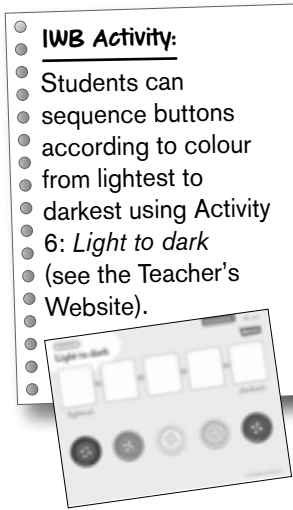
ACTIVATE

Sequencing Sounds

Remove or switch some keys from a xylophone and have students help you to determine the proper sequence based on pitch. Alternatively, you can fill several same-size drinking glasses with water at different levels. When you strike the glasses lightly with a wooden spoon, sounds of different pitches are created. Switch the placement of some of the glasses and invite students to help you sequence them appropriately. Ask:

- **Could you have used a different sense to solve the problem?**

CONNECT



Sequencing by Attributes

Set up mini centres to enable students to sequence sets of items according to their attributes. Small groups of students can cycle through the centres or, if students need more assistance, the explorations could be completed for one sense at a time with the whole group.

Mini centres may include:

- paint swatches or crayons to sequence from lightest to darkest
- glasses in a water glass xylophone or a set of tuning forks to sequence from highest to lowest pitch
- squares of sandpaper to sequence from roughest to smoothest
- scents to sequence from weakest to strongest

Encourage students to share their procedure and results with a partner each time they create a new sequence.

CONSOLIDATE



Drawing a Sequence

Have students draw one of their sequences in their Science Journals. For example, students could sequence crayons from darkest to lightest, then use the crayons to draw it. Have students discuss their sequence with a partner.

EXPLORE MORE

Rethinking

Add a new material to a collection that forces students to rethink their grouping or sequencing. Provide prompts such as:

- Does your sorting rule still work?
- Does this new item change how you would group the materials?
- How does this new item change your sequence?