Science Kindergarten Unit 02 Exemplar Lesson 03: Exploring Texture

This lesson is one approach to teaching the State Standards associated with this unit. Districts are encouraged to customize this lesson by supplementing with district-approved resources, materials, and activities to best meet the needs of learners. The duration for this lesson is only a recommendation, and districts may modify the time frame to meet students’ needs. To better understand how your district may be implementing CSCOPE lessons, please contact your child’s teacher. (For your convenience, please find linked the TEA Commissioner’s List of State Board of Education Approved Instructional Resources and Midcycle State Adopted Instructional Materials.)

Lesson Synopsis

Students will use their sense of sight and touch in this lesson to describe the physical property of texture. It is important for students to have real experiences rather than just talking about things or looking at pictures of them. Real experiences provide opportunities for students to make connections, to make predictions and inferences, and to ask more meaningful questions.

TEKS

The Texas Essential Knowledge and Skills (TEKS) listed below are the standards adopted by the State Board of Education, which are required by Texas law. Any standard that has a strike-through (e.g. sample phrase) indicates that portion of the standard is taught in a previous or subsequent unit. The TEKS are available on the Texas Education Agency website at http://www.tea.state.tx.us/index2.aspx?id=6148.

K.5 Matter and energy. The student knows that objects have properties and patterns. The student is expected to:

K.5A Observe and record properties of objects, including relative size and mass, such as bigger or smaller and heavier or lighter, shape, color, and texture.

Scientific Process TEKS

K.2 Scientific investigation and reasoning. The student develops abilities to ask questions and seek answers in classroom and outdoor investigations. The student is expected to:

K.2C Collect data and make observations using simple equipment such as hand lenses, primary balances, and non-standard measurement tools.

K.2D Record and organize data and observations using pictures, numbers, and words.

K.2E Communicate observations with others about simple descriptive investigations.

K.4 Scientific investigation and reasoning. The student uses age-appropriate tools and models to investigate the natural world. The student is expected to:

K.4B Use senses as a tool of observation to identify properties and patterns of organisms, objects, and events in the environment.

GETTING READY FOR INSTRUCTION

Performance Indicators

Kindergarten Science Unit 02 PI 03

Using a teacher selected group of objects, choose an item, and orally describe its texture.

Standard(s): K.2E , K.5A

ELPS ELPS.c.3D

Key Understandings

- Objects have observable properties that can be used to describe and sort them.
- What is the observable property that describes how something ‘feels’.
- Our skin is the part of our body that senses how things feel.
- What part of your body do you use for the sense of touch?
- Objects have textures. Textures can describe the appearance and feel of a surface.
- What are some words we use to describe the feel or texture of an object?

Vocabulary of Instruction

- texture
- soft
- powdery
- rough
- fluffy
- satiny
- smooth
- ridged
- angular
- bumpy
- grainy
- scratchy

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Materials

- bag (paper, see Advance Preparation, per class)
- basket (student supplied, see Advance Preparation, per group) - Optional
- cotton balls (cut in half preferred, 1 per student)
- object (for ‘mystery object’, see Advance Preparation, per class)
- objects (see Advance Preparation, 1 per student)
- sentence starter (see Advance Preparation, per class)

Attachments

All attachments associated with this lesson are referenced in the body of the lesson. Due to considerations for grading or student assessment, attachments that are connected with Performance Indicators or serve as answer keys are available in the district site and are not accessible on the public website.

Teacher Resource: Performance Indicator Instructions KEY

Resources

None Identified

Advance Preparation

1. Gather a paper grocery bag and a ‘mystery object’, such as an exotic fruit, an unusual seed, a piece of tree bark, a kitchen utensil, or a gourd.
2. Collect cotton balls. It might be helpful to cut the cotton balls in half.
3. Optional: If there is going to be time on Day 2, have students bring an object from home for Day 2.
4. Gather a variety of classroom objects for students to observe during the Performance Indicator.
5. It might be helpful to have the following sentence starter printed on chart paper:
   My object has the texture ______________ and ______________.
6. Prepare attachment(s) as necessary.

Background Information

This lesson bundles process skills and the concept of observing and recording properties of objects, including texture.

Texture is a property used to describe how something looks or feels. Texture is used in helping to describe objects.

Objects have textures. Textures can describe the appearance and feel of a surface. In this lesson, students will describe the texture of various objects using a variety of words including, but not limited to: rough, smooth, bumpy, hard, soft, fluffy, ridged, grainy, powdery, satiny, angular, and scratchy. Students will be able to develop texture vocabulary by investigating different objects by means of touch and sight.

INSTRUCTIONAL PROCEDURES

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1. Hold up the large paper bag with the “mystery object” in it. Invite students to tell you what is in the bag you are holding. Since the object is hidden, students will simply be guessing.

2. Tell students that they are going to be like detectives and solve the mystery of what is in the bag. They will be looking for clues, like a detective does, because they cannot actually see inside the bag. The only clue that they have so far is that it fits in the bag. The observations about the object will depend on sense of touch only. (Choose an object that students can eventually identify, but not too quickly).

3. Explain that each student will get one turn to reach in, touch the object with one finger, and say one thing about the object. Tell students that they will be describing what they feel - telling properties of the object - but NOT trying to guess what it is (until all students have felt it).

Materials:

- bag (paper, see Advance Preparation, per class)
- object (for ‘mystery object’, see Advance Preparation, per class)
- chart paper (per class)

Instructional Notes:

Center Idea (Optional):
If there is going to be time on the Day 2, ask students to bring an object from home to put in the mystery bag (or let them choose from objects you have in the room). Repeat the activity, giving
4. Record the students’ observations on a chart paper. If students repeat an observation, just put a check by the entry already on the chart. Encourage students to make new observations that no one else has noticed yet.

5. Review the list together, and start to write down ideas from students about what they think is in the bag. Ask students to support their guess with observations. If no one guesses correctly, pass the bag around again so students can make more observations. Reveal the object when students reach a conclusion about what’s in the bag.

6. Tell students that scientists, like detectives, also have to be good observers. They use their senses and other tools to observe facts about objects, not give opinions. (Give some examples of opinions and facts, such as: My shirt is red = fact; My shirt is pretty = opinion)

7. Scientists also use a common language to clearly communicate with others. Explain that if someone does an accurate job of describing an object, you will get a clear picture of it in your mind.

8. Look at the words on the list describing the object. Check to see if there are any words that need clarification or defining. Discuss words that have the same or similar meanings.

9. Create a word bank of vocabulary to use to describe how things feel. (Do not include necessarily every word on the list, but the most descriptive of the students’ words. Be sure to include those on the vocabulary list for this lesson)

ELABORATE – Where is my sense of touch?

1. Elicit prior knowledge:
   - What sense do we use to ‘feel’ something? Some students will be aware that this is their sense of touch.
   - Where is my sense of touch? Listen for student responses. Students may think that they can only feel the texture of an object with their hands.

2. Distribute piece of cotton ball to each student.

3. Have students rub the cotton ball across their open hand, the back of their hand, their cheek, and their forearm. Ask them to describe the texture (how it feels) to their partner.

4. Review the concept that texture can be seen and felt, and it can be described in words.

Suggested Day 2

Materials:
- cotton balls (cut in half preferred, 1 per student)
- basket (student supplied, see Advance Preparation, per group) - Optional

Instructional Notes:
Any soft item may be substituted for the cotton balls. Cotton balls are suggested as they are inexpensive. They could be cut in half as students only need a small piece to rub on their skin.

Center Idea (Optional):
Collect baskets of materials for students to describe by texture, such as, but not limited to, sea shells, gourds, tree bark, seeds, or fabric squares.

Safety Notes:
Remind students to not place any item in their mouth. Reinforce any other safety rules you have already discussed with the class.

EVALUATE – Performance Indicator

Suggested Day 2 (continued)

Materials:
- objects (see Advance Preparation, 1 per student)
- sentence starter (see Advance Preparation, per class)

Attachments:
- Teacher Resource: Performance Indicator Instructions KEY
Performance Indicator Instructions KEY

1. Distribute an object to each student.

2. Allow one or two minutes for the student to explore the object’s texture.

3. Have the word bank on **Texture Words** visible and available for students to use.

4. Post the chart paper with the printed sentence starter for students to view:

   **My object has the texture ______________ and ______________.**

5. Ask students to describe the texture of their object using one or two words.