



Do You See What I See?

Susan Elkins-Mahood, WVPT

Overview

Topic: Scientific Investigation, Observation, Visual Perception. This lesson is intended to develop the inquiry skills of kindergarten students through the use of various technology tools (interactive whiteboard, computer, projector, digital camera, document camera). Students will discover that an object can appear very different depending on how it is oriented.

Time Allotment

Two 30- 40-minute sessions

Learning Objectives

On completion of this lesson students will be able to:

- use direct observation to identify the basic properties of an object
- use observations to generate questions about an object
- draw conclusions about an object by viewing it from multiple positions.
- describe objects both pictorially and verbally (This lesson addresses Va. SOL Science K.1; Computer/Technology C/T K-2.4)

Media Components

Matter and Its Properties: Observing The Properties of Matter. United Learning (1999). Retrieved February 16, 2007, from unitedstreaming.
www.wvpt.unitedstreaming.com/index.cfm

Segments Used:

Segment 3: Observing Matter (04:35)

Segment 5: Using Our Five Senses to Determine Properties of Matter (04:46)

www.harcourtschool.com/activity/animal_what/index.html

— (Image Analysis) Interactive activity to help sharpen science thinking skills and reinforce content mastery. Students match the pieces to find out what they are a part of.

Teacher Computer w/Internet Access

Computers w/Internet Access — one per student, if possible

Projector

ELMO Document Camera

Digital Camera(s) — one per adult in the room

SmartBoard (or other interactive whiteboard)

Kidspiration

SmartNotebook (or similar interactive whiteboard software)

PowerPoint Presentation “It’s All In How You Look At It” (provided with lesson)

Materials

- Kidspiration Activities
 1. Observations using our Sense of Sight1.kid
 2. Observations using our Sense of Sight2.kid
 3. Observations using our Sense of Sight3.kid
 4. Observations using our Sense of Sight4.kid
 5. Observations using our Sense of Sight5.kid
 6. Observations using our Sense of Sight6.kid
 7. Observations using our Sense of Sight6 Adapted.kid



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- Books by Tana Hoban such as *Just Look; Look! Look! Look!; Look Again; and Take Another Look*

Teacher Preparations

Day 1

- Download video clips.
- Download Kidspiration activities to server or individual student machines.
- Connect computer and projector in classroom.
- Connect computer, projector and SmartBoard in computer lab.

Day 2

- Bookmark websites.
- Connect computer, projector and SmartBoard in classroom.

Introductory Activity

1. Focus: Say: Do you ever wonder how we learn about the world around us? How do you know the sky is blue or snow is cold? Scientists wonder these things too. That is why they study our world. Today we will begin learning about the process of observation and what that means. But first we will watch this short video clip. When I stop the video I want you to answer this question. How do we learn about the world around us?

Play “Observing Matter,” a clip from program *Matter and Its Properties* beginning at 00:07.

Pause at 00:36. Audio cue: “We can tell all these things through our senses.”

Follow-up: Ask students: How do we learn about our world? (senses) Is that right? How do we know when breakfast is ready? (smell) How do we know when it has snowed outside? (sight) How do we know when recess is over? (hear) Etc.

2. Focus: What are senses? Let’s listen to see if we’re right.

Resume at 00:36 to confirm the definition of senses.

Pause at 00:45. Audio cue: “... and smell.”

Follow-up: What are senses? How many senses do we have? Can you name all of them? Are people the only ones to have senses?

3. Focus: Now we are going to watch this next segment with the **Sound Off** to see if you can determine which senses are being illustrated in the clip. Call out each sense as you recognize it.

Resume with **Sound Off** from 00:45.

Pause at 01:10. If necessary, **Rewind** and **Replay** the segment with the **Sound On** to confirm the senses shown.

Follow-up: Check comprehension and concurrence. What were some of the examples we saw of the sense of sight? The sense of sound? Etc. Can you give me some examples of how you use your senses? (brief responses)

4. Focus: At the start of our lesson I said we were going to learn about the process of observation, listen carefully to this next clip to learn what the term observation means.

Resume at 01:10 with the **Sound On**.

Stop at 01:27 after the word “tasting.”

Follow-up: Ask the students to define observation. Can you make an observation about one thing in our classroom?

5. Focus: Explain to the students that while all of the senses are important for making observations one sense is particularly important. Our sense of sight is the one sense used most often to learn about the world. Tell students to watch and listen carefully to the video clip to learn about three important properties (color, shape, and size) that we can see that help us to learn about the world around us.

Play: “Using Our Five Senses to Determine Properties of Matter” beginning at 00:09 or right after the title fades.

Stop at 01:22 or after the words, “bigger or smaller than the other.”

Follow-up: Ask the students to recall the three properties of objects that can be determined using our sense of sight. (color, shape and size) Explain to the students that by observing the color, shape and size of an object we can better understand the object. Tell students that now they will go to the computer lab and make some observations about everyday objects we see in our classroom.

Videostreaming

In order to use videostreaming interactively with students, teachers should use pre-segmented clips provided by the videostreaming company. If you wish to conduct a discussion before the clip is over and then resume after the discussion, use PAUSE, as this will cause the media player to remain at the current location in the stream. If the remainder of the video clip will not be used and the teacher wants to return to the beginning of the video clip, then use STOP so that the media player will revert to the beginning of the stream.

Learning Activities

1. Focus: (Computer Lab) Today we are going to make some observations using our sense of sight. (Using a SmartBoard or other interactive whiteboard demonstrate and complete Kidspiration activity #1 together as a class.)

Activity: Students complete one or more other Kidspiration observation activity(ies) on their own. Circulate and assist students, as needed. Ask students questions such as: Which shape most resembles the shape of your object? Which color do you see most in your object? If your object is bigger, which objects are smaller than your object?

Follow-up: Have students print completed activity to hand in for use as assessment.

Day 2

2. Focus: Tell the students that today you are going to explore a website with them. Using their sense of sight, they must try to figure out what they are seeing. Display the following website on a connected and oriented SmartBoard.

www.harcourtschool.com/activity/animal_what/index.html

Activity: Have students come to the board and touch a block to reveal another part of the image. Encourage students to guess what the image is as more parts are revealed.

Follow-up: Ask the students which images were easy to guess and which images were difficult. Why were the two white images hard to guess? What would have made them easier?

3. Focus: Say: Author Tana Hoban was also fascinated with the way things appear. She has created several books using just photographs to illustrate how things can appear very different depending on how you look at them. Let's take a look.

Activity: Display Tana Hoban's *Just Look* (or other similar title) on the Elmo document camera. Show the die cut window and ask the students to guess what they are seeing before turning the page to reveal the object in the full page view. Ask students how they arrived at their predictions. Ask students why there are many different predictions. After revealing the full photo, have students discuss the various predictions to see if they can relate to the various points of view. Have students continue their predictions throughout the entire book.

Follow-up: Ask why the images were difficult to figure out. (The color, shape or size of the object wasn't apparent until the entire photo was revealed.)

4. Focus: Ask students: If the entire object could be seen, would you be able to identify it? Let's see if you're right.

Activity: Display PowerPoint Presentation, "It's All In How You Look At It." Slide 1 – Have students identify the shape and color of the object. Ask students what they think the object might be. Why? Click to reveal a quarter.

Follow-up: How did we know that? Explain that the quarter helps us to determine the size of the object by allowing us make a comparison based on the known size of a quarter. For each slide, ask students: Based on your observations, what do you think this item is? Why do you think that? How might this object be used? Continue with this method of questioning throughout the rest of the slideshow.

Culminating Activities

Focus: Tell the students that they can create a book just like Tana Hoban. Explain that they are to use their observation skills to select an object to photograph for a class "Look Book." Explain that they will be given a digital camera to take a picture of their object. Remind them to select an object that has several interesting characteristics. They should

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be prepared to tell about their object. They will need to include information such as the size, shape and color of the object.

Activity: Break students into small groups. Briefly explain and demonstrate how to use a digital camera to photograph classroom objects. Allow each student to take a picture of a classroom object.

Follow-up: Have students share their object by describing color, shape and size in comparison to another classroom object without revealing the name of the object. Have the rest of the class try to guess the item.

Teacher Follow-up: Print out 8 x 10 prints of student photos on cardstock and cutout a hole in a piece of cardstock for each photo, assemble and bind to create a “Look Book” for the classroom.

Assessment

- Teacher Observation
- Kidspiration Activity — Were students able to identify the three basic properties of the object they were given?

Community Connections

- Invite a scientist, policeman or investigator in to discuss the importance of observation in the job.
- Invite a photographer and/or artist to demonstrate how they decide on the perspective for a picture.
- Observation Podcast — Have students describe common classroom objects such as pencil boxes, glue bottles, markers, books, etc. without naming the object itself. Remind student to use color, shape and size in their descriptions. Record and publish these observations as podcasts for another group of students from another class or school to try and identify the objects being described. Provide an email address so that others can send their guesses to the class. Read responses to the students. Respond to the emails received as a class with students dictating the message to be sent.

Cross-Curricular Extensions

Computer Lab: Have students visit bookmarked site for another opportunity to explore point of view.

www.harcourtschool.com/activity/animal_what/index.html

Math: Sort and classify shapes by color, shape and/or size.

Adaptations (optional)

- Allow students to work with a partner to complete adapted Kidspiration Activity.
- Assist students as needed.

About the Author

Susan Elkins-Mahood

Susan is an Instructional Technology Resource Teacher for Rockbridge County Schools. Before becoming an ITRT she taught elementary school for 17 years. Her experience includes teaching kindergarten, first, second and third grade. She holds a BS in Ed from Concord College and a MAED in Curriculum and Instruction with an emphasis on Instructional Technology from Virginia Tech. Susan became a NTTI Master Teacher in 2002 and an Intel Master Teacher in 2003. Since that time she has presented over 50 sessions on integrating technology into classroom lessons at seven NTTIs. These sessions have been attended by over 1000 educators from 20 school divisions in the Shenandoah Valley and Blue Ridge Mountain area of Virginia. Most recently, she presenting two sessions at the 2006 VA DOE Educational Technology Leadership Conference. She is currently pursuing her NETS*T certification. She enjoys spending time with her husband Todd, and their four children. She also enjoys reading and advocating for children with special needs.

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