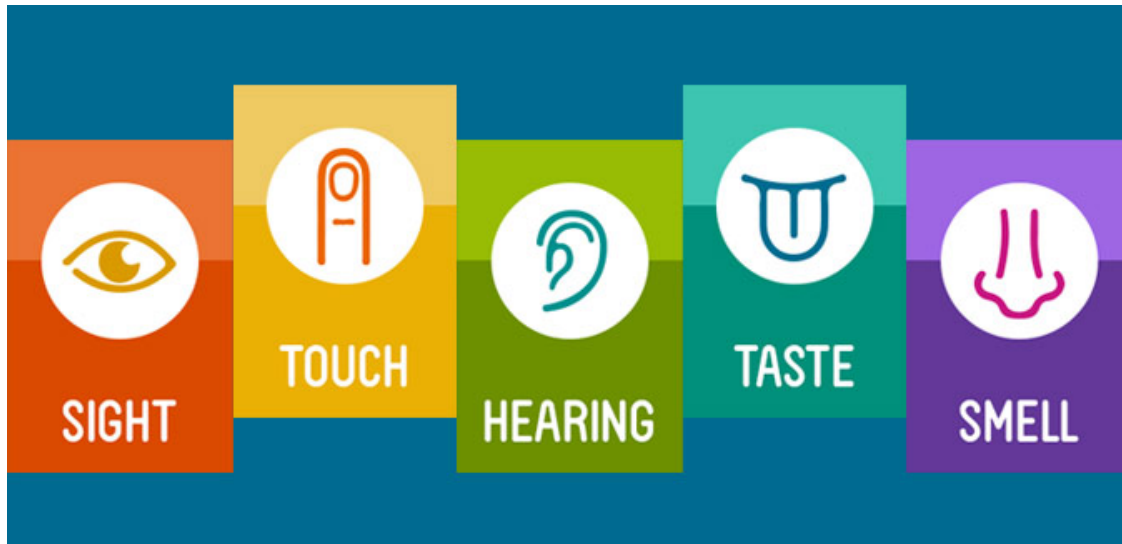


KINDERGARTEN SCIENCE

K.L.2A.4—LIFE SCIENCE: THE 5 SENSES



From the Support Document: http://ed.sc.gov/agency/ccr/Standards-Learning/documents/2014Kindergarten_SupportDoc.pdf

Performance Indicator K.L.2A.4 Analyze and interpret data to describe how humans use their senses to learn about the world around them.

Assessment Guidance

The objective of this indicator is for students to *analyze and interpret data* to describe how humans use their senses to learn about the world around them. Therefore, the primary focus of assessment should be for students to *analyze and interpret data from observations, measurements, or investigations to understand patterns and meanings* regarding the five senses. This could include but is not limited to, making direct observations using the senses and recording the data on a chart.

In addition to *analyzing and interpreting data*, students should *ask questions; plan and carry out investigations; use mathematics and computational thinking; engage in argument from evidence; construct explanations; develop and use models; obtain, evaluate, and communicate information; and construct devices or design solutions.*

Essential Knowledge

There are five senses, each with specific parts of the body (sensory organs) responsible for each of the five senses.

Eyes

- The sensory organs that see.
- They take in information (for example, shapes, colors, size or movements) about the world.

Nose

- The sensory organ that smells odors and is a big part of why a person is able to taste things.

Ears

- The sensory organs that collect sounds.
- The part of the ear that can be seen collects the sounds a person hears. There are other parts inside that help with hearing.

Tongue

- The sensory organ responsible for taste.

Skin

- The sensory organ that is responsible for the sense of touch (including

Extended Knowledge Conduct structured investigations with teacher guidance to determine how the tongue recognizes different types of taste—sour, bitter, sweet, and salty.

EYES

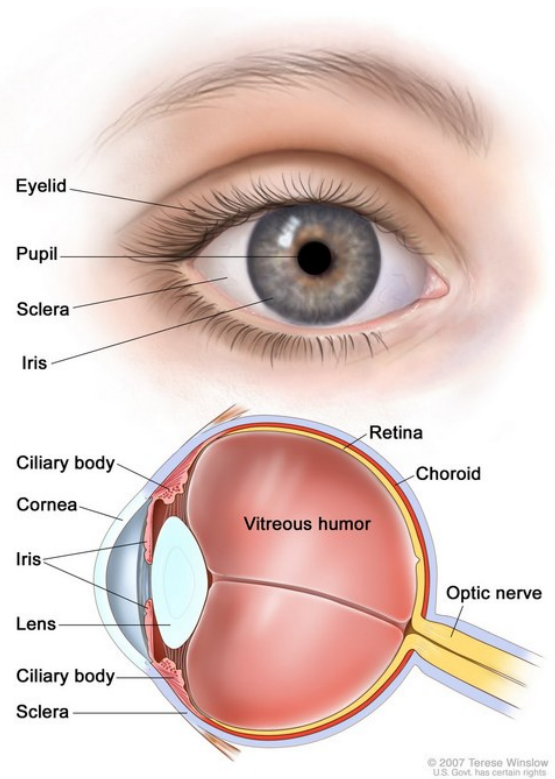
LESSON #1: EYES AND LIGHT

Materials Needed: none

Have students pair up and look into each other's eyes. Turn off the classroom lights while students look into each other's eyes. They should see that their friend's pupil gets smaller when the lights are on and larger when the lights are off. Do this slowly several times.

Discuss that light is needed in order for us to see, but too much light makes us unable to see. The iris is a muscle that opens and closes the pupil to control the amount of light that enters the eye.

Students may draw what they saw happen in their science notebook.



LESSON #2: HOW FAR CAN I SEE?

Materials Needed: Toilet tissue or paper towel tube

Have students stand and look straight ahead. They should hold both arms straight out to their side and wiggle their fingers. Looking straight ahead, ask if they can still see their fingers. Our vision to the sides is called peripheral vision. Discuss why peripheral vision is important—how it can keep us safe.

Try this with one eye closed. Can students see as far with only one eye?

Give each student either a paper towel or toilet tissue tube for each eye. How does looking through the tube affect peripheral vision?

In their science notebooks, students may draw what they see with and without the paper tubes.



LESSON #3: I SEE IT BETTER

Materials Needed: Magnifying Lenses, newspaper

Give students magnifying lenses and a newspaper cutout that contains part of different sizes—a headline and an article. Students should observe the print with and without the magnifying lens. In their science journal, students should draw what they saw.

Students may use the lenses to observe many things—the parts of flowers, their fingerprints, tiny pictures, textures of fabrics, etc.



LESSON #4: WHAT'S THE DIFFERENCE?

Materials Needed: Handouts from the links below OR show them on the board.

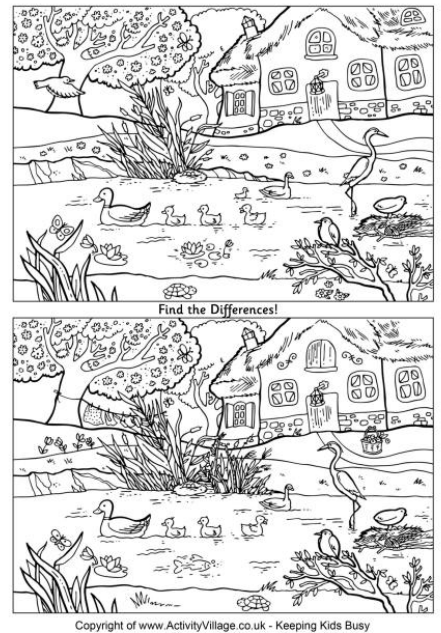
Have students look at the pictures and count the number of differences. Discuss, could any of the other 5 senses have been used to do this activity?

More picture comparisons may be found at:
<http://www.activityvillage.co.uk/find-the-difference>

At this link, you find interactive scenes in which there is something wrong that the students must find.

<http://www.highlightskids.com/whats-wrong>

In their science journal, they may draw a picture, then draw it again making a small change.



LESSON #5: READ FROM THE CHART

Materials Needed: Eye chart from this packet, tape

Tape the eye chart to the wall in the classroom, measure back 20ft. Have students read the letters from the chart. In their Science Journal, they may all sit 20ft away and draw what they see on the wall.

Students may try this with both eyes open, then one eye closed to see if there is a difference. You may invite the school nurse to assist with this activity.

Other eye charts available online—some have animals or colors!



NOSE

LESSON #6: I KNOW THAT SMELL

Materials Needed: Various scented items tied in fabric pouches

Give students a variety of items in identical fabric pouches to sniff and identify. Items may include: gummy bears, tissue with hand sanitizer, cinnamon stick, tea bag, etc.

- Students may match the items to known items.
- Students may be asked to sort the items as those with pleasant vs. unpleasant smells.



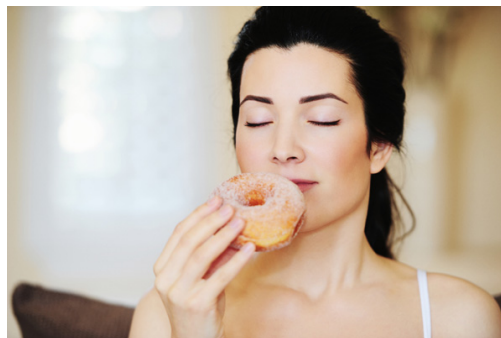
A variation may be to have students sit on the rug and close their eyes. The teacher walks around with something for each student to sniff. Once everyone has sniffed it, they try to guess the item.

LESSON #7: MOUTHWATERING SMELLS

Materials Needed: Samples of the following—butter popcorn, peach rings candy, bubble gum, orange slices

Allow students to smell the butter popcorn without seeing what it is. Ask them how the smell makes them feel. Ask them if they know what they smelled. Some students may say it makes them want to drool.

- Discuss that our sense of smell helps us to taste and identify food.
- Discuss the locations of our mouth and nose and how they work together.
- Discuss that when we have a cold and our nose is stuffy, we often don't want to eat—maybe because we can't smell the food.



EARS

LESSON #8: Identifying Sounds

Materials Needed: Weblinks below, Promethean board

The links below will go to websites with sound games in which students must identify common environmental sounds.

<http://www.freehearingtest.com/test.shtml>

<http://www.scholastic.com/magicSchoolBus/games/sound/index.htm>

<http://www.perunakellari.fi/animalsounds/animal-e.html>

<http://teacher.scholastic.com/clifford1/flash/phonics/>

LESSON #9: Musical Instruments

Materials Needed: Various household items

Assist students in making musical instruments. Explain that musical instruments must make a vibration. Demonstrate how sounds are made by tapping, rubbing, or rolling an object. With guidance, allow students to make their own musical instruments.

Once the instruments are made, play some instrumental music with a beat and allow students to play along.

<http://www.kinderart.com/teachers/9instruments.shtml>

http://a2zhomeschooling.com/explore/fine_arts_kids/music/homemade_instruments/

LESSON #10: WHAT DID YOU SAY?

Materials Needed: Plastic cups, string, hole punch

Make “telephones” from cups and string. Poke a hole in the bottom of each cup, knot a string and pull it through to the other cup. The students should stretch the cups far apart connected by the string and whisper into one cup, the other person should hold his cup to his/her ear.

Make this an investigation by making several telephones with:

- different lengths of string
- different types of string
- different materials for the cup



SKIN

LESSON #11: WHAT DOES IT FEEL LIKE

Materials Needed: Empty boxes, various materials

Place a different object in each box. Students reach into each box to feel the object.

In their science journal, students draw what they think they felt.

-An alternative to tissue boxes is to place objects in socks to be felt and squeezed and identified.

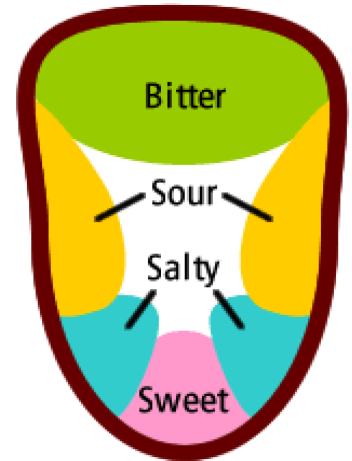


TONGUE

LESSON #11: STICK OUT YOUR TONGUE

Materials Needed: Magnifying lenses

Have students sit in pairs to examine the tongue of a friend. Explain to them that they should not touch their friend's tongue, they should just look at it. They should look at with a magnifying lens. Each student should draw his or her friend's tongue in their science journal. Introduce students to the taste map of the tongue. Once they have drawn their friend's tongue, they should label the taste areas.



LESSON #12: WHAT DOES IT TASTE LIKE?

Materials Needed: Various food items of different tastes.

Provide food samples for students to taste and categorize. The categorization may be sweet vs. salty, good tastes, vs. bad tastes, or each of the tastes seen on the tongue above.

Foods could include: pineapple slices, lemon, pretzels, crackers, sugar cubes, honey, unsweet tea, gummy bears, celery, pickles, salt-vinegar chips.

Students should categorize and collect data in their science journal.

How Do Our Sense Organs Keep Us Safe?

	Eyes	Ears	Mouth	Skin	Nose
How would you know if you were in a burning building?					
How would you know there was a big scary dog on the loose?					
How would you know if you were about to eat something that was spoiled?					
How would you know if the bathtub water is too hot?					
How would you know if there was a snake in our camping tent?					
How would you know that you are talking to a stranger?					
How would you know when it safe to cross the street?					

In the chart below, the student must place a ✓ or ✗ in the box indicating which of their senses they can use to experience each of the objects. (You may alter the objects if you wish!) It may also be a good idea to bring in the object for students to experience for this activity.

	Flower	Bee	Tennis ball	Black Pepper	Ice	Grass
See						
Hear						
Taste						
Feel						
Smell						

1. Do we use all of our senses to observe everything?
2. Which of our senses do we use most?
3. Which of our senses do we use least?
4. Which of our senses should we be careful with?
5. If you were blind, how would you still be able to use your other senses?