

Educator Guide to

Making Sense



of it All!

A workshop presented
by the Reuben H. Fleet
Science Center for
grades K - 3


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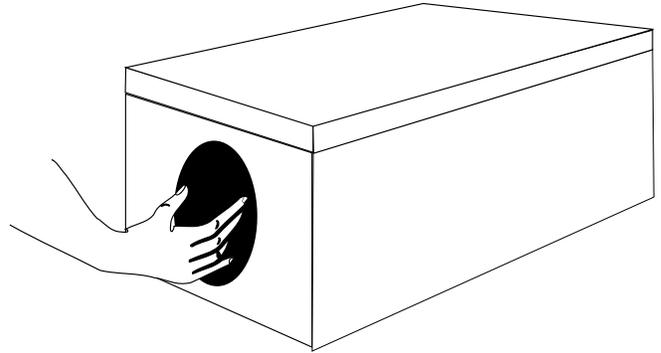
SENSORY BOX

OBJECTIVE:

The students will learn about their sense of touch by feeling objects in a box.

MATERIALS:

- 4 boxes (shoebox size containing lids) with holes in sides for hands.
- 4 corks
- 4 magnifying glasses
- 4 bells
- 4 styrofoam balls
- 4 rubber balls
- 4 feathers



TO DO:

Split the class up into 4 groups. Give each a group a box with the items already inside. Instruct the student to take turns sticking their hands into the box and picking up one item inside the box so no-one can see the item. (All groups should be working simultaneously.) The students should describe as much as possible about the item to the rest of their group. Every student should have a chance to touch at least one item. If time permits, add more items to the box and repeat the steps.

WHAT'S GOING ON?

The epidermis, or top layer of our skin, contains many nerve endings. All the information we receive by our sense of touch comes to our brain through these nerve endings. They send messages to the spinal cord, which sends them to our brain to tell us what we are feeling. Our brain decides what the feeling is and what we should do about it. For example, if your friends puts a piece of ice on your neck, the nerve endings in the skin of your neck send a message back to your brain that says: ice! Your brain decides that you don't want ice on your neck and it sends a message back to your body to move. Although we can feel the objects in the box, we can't see them. It is possible to identify some of the objects without seeing them, but sight gives us a better chance to do it with more accuracy and with more specific details about the object.

Over 70 percent of the body's sense receptors are in the eyes, and it is mainly through seeing the world that we evaluate and understand it. Each sense is important in its own right, but each has limitations. On the other hand, one sense can be used to compensate for another. The most effective way to receive information is to use all our senses in harmony.



SENSORY CONCENTRATION

OBJECTIVE:

Students will make concentration cards and play the game concentration to learn about the five senses.

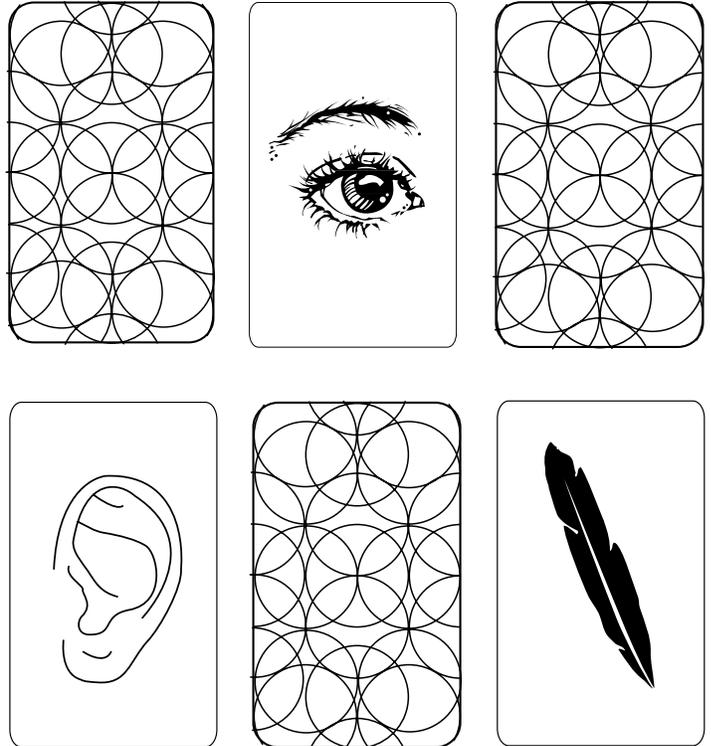
MATERIALS:

- Pencil
- Small white paper cut-outs (each student needs 10)
- Crayons or colored pencils

TO DO:

Give each student 10 cut-outs. Use five cut-outs to draw a **symbol** representing each of the five senses (an eye for sight, a hand for touch, etc.). Use the other five cut-outs to draw one **example** of each of these senses (a rainbow for sight, a feather for touch, etc.). Make sure that one side of every card is blank.

To play the game, the students have to place all of the cards face down. Then one student turns over two cards to try to find a card with the symbol that matches the card with the example of each sense. If the student finds a matching set, he/she can go again. If the student does not find a matching set, he/she should turn the card back over face down and the other student takes a turn.



WHAT'S GOING ON?

Short-term memory has two important characteristics. First short-term memory can contain at any one time seven, plus or minus two, chunks of information. Second, items remain in short-term memory for about 20 seconds.

Sense organs are faculties by which outside information is received for evaluation and response. This is accomplished by the effect of a particular stimulus on a specialized

organ, which then transmits impulses to the brain via a nerve or nerves.

The activity requires sense of sight to take in information, so the eye is the organ that receives a stimulus. Combining our sense of sight with short-term memory, we are able to do this type of activity effectively.

KEY WORDS

Teachers, the following glossary terms are used in the lessons above as well as the lessons that will be covered during your workshop. It will be beneficial for your students to know these words in order to get the most out of their field trip.

EARDRUM: A thin membrane that receives and sends sound waves in the ear.

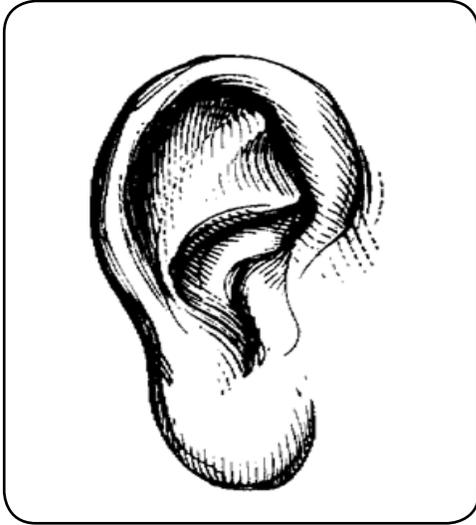
NERVE: Cord-like fibers connecting the body organs with the central nervous system that carry impulses to and from the brain.

RECEPTOR: Nerve ending which receive and transmit stimuli.

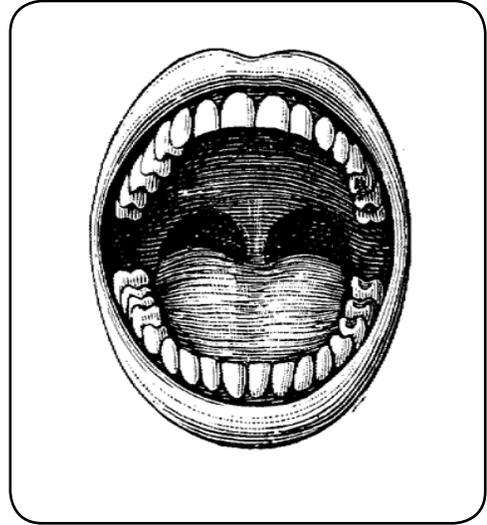
TASTE BUD: A sense organ mediating the sensation of taste.

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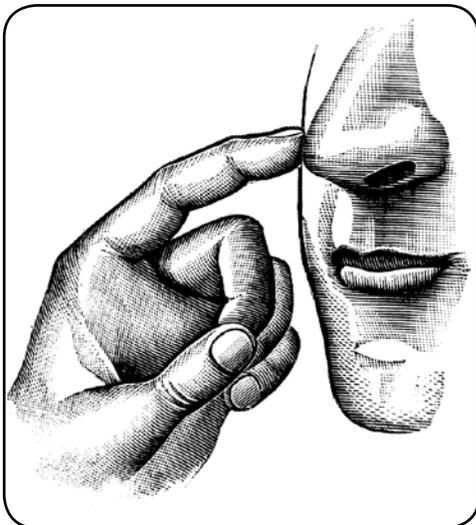
Hear



Taste



touch



See

