

ELEMENTARY SCIENCE PROGRAM
MATH, SCIENCE & TECHNOLOGY EDUCATION

A Collection of Learning Experiences
MY BODY

Revised August 2006

Development supported by Cornell Cooperative Extension

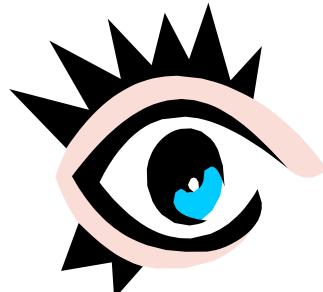
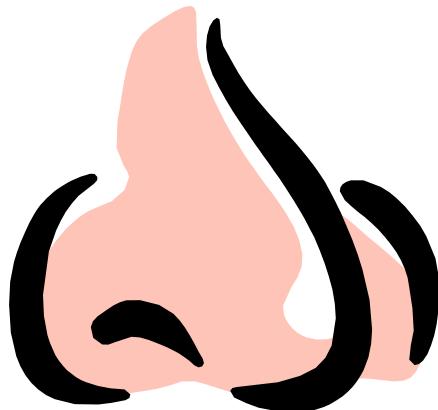


TABLE OF CONTENTS

Unit Overview2
Format & Background Information3-10
Learning Experience 1 - Getting Started- Our Bodies	11-13
Learning Experience 2 - How We Are Alike/Different.....	14-15
Learning Experience 3 - Hygiene	16-20
Learning Experience 4 – Energizing Our Bodies.....	21-22
Learning Experience 5 - Five Senses.....	23-24
Learning Experience 6 - Sight25-27
Learning Experience 7 - Hearing.....	28-30
Learning Experience 8 - Touch	31-32
Learning Experience 9 - Smell	33-34
Learning Experience 10 - Taste	35-36
Learning Experience 11 - Healthy Body Journal37
More Ideas38-40
Inquiry & Process Skills.....	.41
Glossary42-43
Teacher References.....	.44

MY BODY

GRADE K

Unit Overview:

Students will develop body awareness through the use of different body parts. Students will learn about the different ways we care for our body. The senses are explored in-depth, as well as the body part associated with each sense. The skills emphasized in the kit are observing, discussing, manipulating materials, predicting, and describing.

Scheduling

This unit may take from five to nine weeks to complete depending upon the goals of the teacher and interests of the students. Use of the section included in this manual called More Ideas may extend the time span of this kit.

Materials to be

obtained locally:

Please make one student activity book for each student.		
construction paper	felt tip markers	magazines
popcorn kernels	newspapers	chart paper
crayons	tape	white paper
hole punch	drawing paper	water
yarn	glue	scissors
toothbrush	toothpaste	hand lotion
objects around classroom	bell (or similar sound)	
canned frosting	glitter	
popcorn popper	large grocery bag	

Caution

Remind students to wash their hands after handling any of the materials in the kit. Small objects should be handled with care. Please do not have students taste the liquids not authorized by the teacher.

About the Format

Each learning experience is numbered and titled. Under each title is the objective for the learning experience.

Each learning experience page has two columns. The column on the left side of the page lists materials, preparations, basic skill processes, evaluation strategy, and vocabulary. The evaluation strategy is for the teacher to use when judging the student's understanding of the learning experience.

The right column begins with a "Focus Question" which is typed in italicized print. The purpose of the "Focus Question" is to guide the teacher's instruction toward the main idea of the learning experience. The "Focus Question" is not to be answered by the students. The learning experience includes direction for students, illustrations, and discussion questions. These discussion questions can be used as a basis for class interaction.

Background Information:

Nutrition

The food pyramid is a way to show the food groups that make up a healthy diet. The food pyramid also provides information on the number of servings you should eat from each group in the pyramid each day. The placement of foods on the food pyramid is ever changing based on research. According to the new food pyramid, released by the USDA in 2005 each person needs a different amount of servings from each group based on their age, sex and level of physical activity (now represented on the pyramid as the steps).



Bread, Cereal, Rice & Pasta Group

This group makes up most of what should be eaten every day. This group is a rich source of carbohydrates, the nutrient that is the body's major energy source. Any food made from wheat, rice, oats, cornmeal, barley or another cereal grain is a grain product. Bread, pasta, oatmeal, breakfast cereals, tortillas, and grits are examples of grain products.

Grains are divided into 2 subgroups, **whole grains** and **refined grains**.

Whole grains contain the entire grain kernel -- the bran, germ, and endosperm.

Examples include:

- Whole wheat flour
- Bulgur (cracked wheat)
- Oatmeal
- Whole cornmeal
- Brown rice

Refined grains have been milled, a process that removes the bran and germ. This is done to give grains a finer texture and improve their shelf life, but it also removes dietary fiber, iron, and many B vitamins. Some examples of refined grain products are:

- White flour
- Degermed cornmeal
- White bread
- White rice

Try to eat 4 to 5 ounces from this group a day and try to make at least half of your grains whole.

Vegetable Group

Vegetables are a rich source of vitamins and minerals. Vegetables also provide carbohydrates for the energy your body needs and fiber. Any vegetable or 100% vegetable juice counts as a member of the vegetable group. Vegetables may be raw or cooked; fresh, frozen, canned, or dried/dehydrated; and may be whole, cut-up, or mashed.

Vegetables are organized into 5 subgroups, based on their nutrient content. These subgroups are dark green, orange, dry beans and peas, starchy, and other vegetables. It is recommended to eat 1-2 servings of vegetables a day and to eat a variety of the subgroups.

Fruit Group

Fruits are important sources of many nutrients, including potassium, dietary fiber, vitamin C, and folate (folic acid). Any fruit or 100% fruit juice counts as part of the fruit group. Fruits may be fresh, canned, frozen, or dried, and may be whole, cut-up, or pureed. Try to eat a variety and go easy of fruit juices. Choose to eat fruit with the skin still on it to get more fiber. It is recommended to eat 1-2 servings of fruits a day.

Examples of a serving are:

- 1 apple with skin
- 1 banana
- 1 cup of grapes
- 1 cup of 100% fruit juice

Milk, Yogurt & Cheese Group

Eating foods from this group helps the body get the calcium it needs. Protein is also provided in these foods. Two to three servings are needed from this group everyday.

Examples of a serving are:

- 1 cup of milk
- 1 cup of yogurt
- 1 1/2-2 ounces of cheese

Meat, Poultry, Fish, Beans, Eggs & Nuts Group

The foods in this group provide the body with protein. All foods made from meat, poultry, fish, dry beans or peas, eggs, nuts, and seeds are considered part of this group. Dry beans and peas are part of this group as well as the vegetable group. Two to three servings from this group is needed by the body everyday.

Examples of a serving are:

- 2-3 ounces of lean meat, poultry, fish
- 1 egg
- 1/2 cup cooked beans
- 2 T of peanut butter

Fats, Oils & Sweets

Most of the fats you eat should be polyunsaturated (PUFA) or monounsaturated (MUFA) fats. Oils are the major source of MUFA and PUFA in the diet. PUFA contain some fatty acids that are necessary for health—called “essential fatty acids.”

Because oils contain these essential fatty acids, there is an allowance for oils in the food guide separate from the discretionary calorie allowance.

The MUFA and PUFA found in fish, nuts, and vegetable oils do not raise LDL (“bad”) cholesterol levels in the blood. In addition to the essential fatty acids they contain, oils are the major source of vitamin E in typical American diets.

While consuming some oil is needed for health, oils still contain calories. Therefore, the amount of oil consumed needs to be limited to balance total calorie intake.

Teeth

A tooth is basically made up of two parts: the crown and the root. The crown is what you see when you open your mouth, above the gumline. The root is below the gumline. The root is 2/3 of the tooth’s total length.

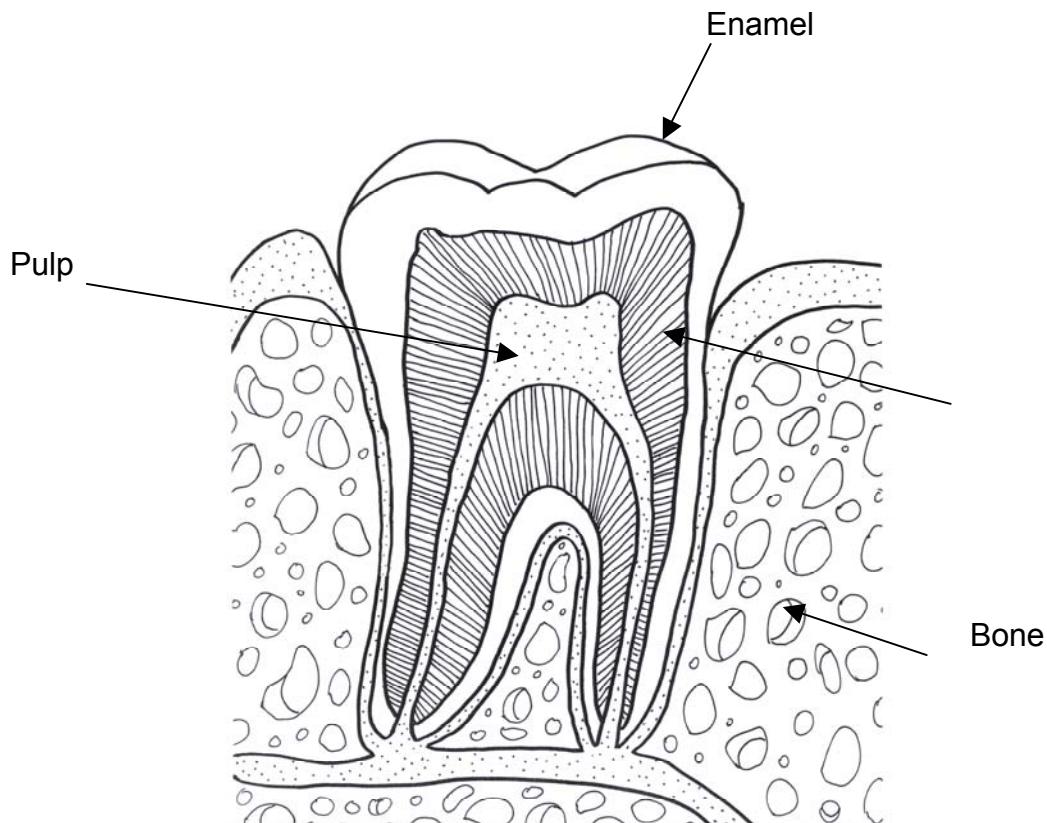
Enamel is the outermost part of the tooth and it is the hardest substance in the body. The enamel protects the dentin and pulp of the tooth from hot and cold substances, trauma and decay. **Dentin** is the second layer of the tooth, between the pulp and enamel. Dentin is as hard as bone. If a piece of enamel breaks or it has been decayed, the dentin is exposed, and it can make the tooth feel sensitive to hot and cold.

The **pulp** is the soft, inner part of the tooth. It is made up of blood vessels and nerves. The pulp nourishes the tooth. A toothache is due to the irritation or infection of the nerves. The pulp in the tooth can die and a root canal is required to relieve the pain.

Bone is the supporting structure for the tooth. The bone keeps the tooth from becoming

loose or moving its position. The **gingival** around the tooth is the “gum” tissue. Healthy gums are essential to maintaining healthy teeth.

Parts of a Tooth



Dental Health

It is important to visit the dentist regularly for check-ups and cleanings. Eating a well-balanced diet and avoiding sweet snacks helps maintain healthy teeth. Brush your teeth once or twice a day. Floss teeth once a day to reach areas the toothbrush cannot reach, and keep an eye on your gums. Red, puffy or bleeding gums can be a sign of gum disease.

Sleep

Everything that is alive needs sleep to survive. Scientists think sleep is the time when the brain sorts and stores information, replaces chemicals, and solves problems. Most

kids ages 5-12 sleep eight to ten hours a night. When your body does not get enough rest, you feel tired and may not be able to think clearly. Your body goes through different stages of sleep. It is the stage of REM (Rapid Eye Movement) sleep that people have dreams.

To help get the quality sleep you need:

- Try to go to bed the same time every night
- Don't drink beverages with caffeine before sleep
- Exercise helps you sleep if it's not too late at night
- A warm bath may also help the body relax before bed

Animals react to day and night in different ways. Some animals are active during the day while others are active at night. Therefore, animals are diurnal or nocturnal. The **diurnal** animal is active during the daylight hours. However, **nocturnal** animals are active at night. Examples of nocturnal animals are the raccoon, owl, bat, wolf, opossums and porcupines.

Hand Washing

Hand washing is important because, when done correctly, it is the single most effective way to prevent the spread of communicable diseases. A good hand washing technique is easy to learn and can significantly reduce the spread of infectious diseases among both children and adults in places such as schools, daycares and workplaces.

Follow these steps to wash your hands properly:

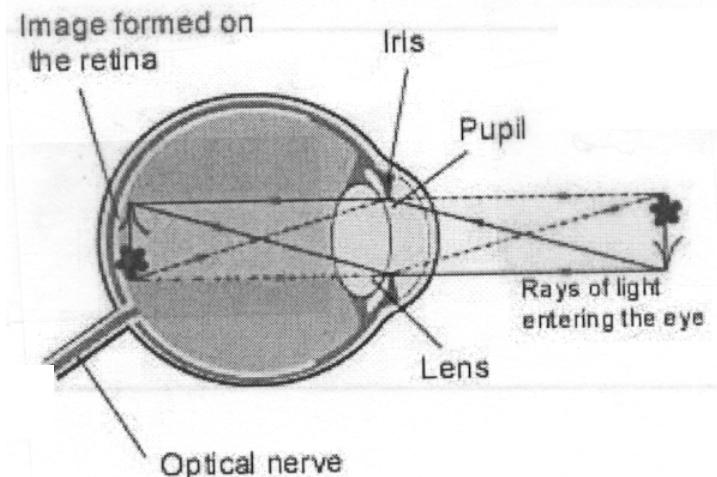
1. Wet your hands with warm running water
2. Add soap, and then rub your hands together, making a soapy lather. Do this away from the running water for at least 10 seconds, being careful not to wash the lather away. Wash the front and back of your hands, as well as between your fingers and under your nails.
3. Rinse your hands well under warm running water. Let the water run back into the sink, not down to your elbows. Turn off the water with a paper towel and dispose in a proper receptacle.
4. Dry hands thoroughly with a clean towel.

Five Senses

Sight

Your eyes are optical instruments. They can tell different objects apart, adapt quickly to variations in light, and can focus automatically. The eye lets light in through the **cornea**. We cannot see objects without light. The cornea provides most of the focusing power when light enters the eye. The iris controls the quantity of light allowed in. The **iris** is the colored part of the eye. The iris controls the pupil by contracting or expanding the muscles of the iris. The **pupil** is the black circle seen in the center of the eye. It is similar to the shutter of a camera by controlling the amount of light that enters the eye. When in a bright environment, the pupil becomes smaller to allow less light through. When it is dark, the pupil expands to allow more light to reach the back of the eye. The

lens of the eye provides focus to the light entering the eye. The light then reaches the **retina**, which lines the wall of the eye and acts like film in a camera. The retina sends images to the **optic nerve** in the form of electrical signals to the brain. The eye forms a reversed image, however, at the beginning of our development, our brain learned to turn the image right side up and interpret it.



Your perception of the world is based upon how the brain interprets the sensory clues it receives. Your sense of sight can trick you. These are called **optical illusions**. The cues deceive us into thinking we see something that is not even there.

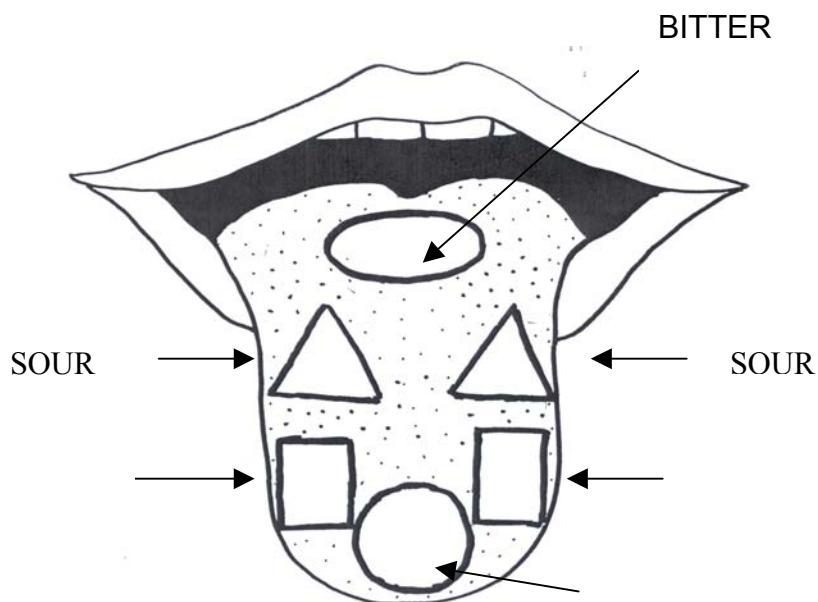
Sense of Hearing

The ear has three separate sections—the outer ear, the middle ear, and the inner ear. Each section performs a function related to hearing or balance. The **outer ear** contains three parts—the pinna, ear canal, and eardrum. The **pinna** collects sound waves from the air and funnels them into the ear canal. The **ear canal** is a curved corridor that leads to the eardrum. The eardrum separates the external ear from the middle ear. The **middle ear** is an irregular-shaped, air filled space. A link of three tiny bones, the **ossicles**, spans the middle ear. As sound waves strike the outer surface of the **eardrum**, it vibrates. The vibrations are transmitted through the middle ear by the ossicles. The **hammer** is the first ossicle to receive vibrations, which then passes to the second ossicle, the **anvil**. The third ossicle, **stirrup**, relays the vibrations to a membrane covering the opening of the inner ear. This membrane also transmits vibrations. The vibrations enter a fluid that fills the **cochlea**. This coiled tube houses the true mechanism of hearing, the **organ of corti**. When vibrations pass into the inner ear, they cause waves in the cochlear fluid. Receptor nerve cells send the impulses to the brain where sound is identified.

Sense of Taste

The **tongue** has more nerve endings per square centimeter than any other areas of the body. The nerve receptors are called **taste buds**. They are located in and around the tiny bumps on the surface of the tongue called the **papillae**. The taste buds are sensitive to salty and sweet tastes around the tip of the tongue. The taste buds that

detect sourness tastes are found on either side of the tongue. The taste buds at the back of the tongue detect bitterness. It is a combined function of smell and taste that help us recognize the flavor of foods. The tongue moves food around in the mouth during chewing and it moistens the food with saliva. During swallowing, the tongue contracts and pushes food back toward the pharynx. The tongue is also an organ of speech. The tongue helps in the formation of sound.



Sense of Smell

Our sense of smell is our most primal sense. Animals need their sense of smell to survive. The average person can discriminate between 4,000 to 10,000 odor molecules. We breathe in airborne molecules that travel to and combine with receptors in nasal cells. The **cilia** are the hairlike receptors that extend from cells inside the nose. They are covered with a thin, clear mucus that dissolves odor molecules not in vapor form. When you put food in your mouth, odor molecules from that food travel through the passage between your nose and mouth to **olfactory cells** at the top of the nasal cavity. If mucus in your nasal passages becomes too thick, air and odor molecules can't reach the olfactory cells. The brain receives no signal identifying odor. This is what occurs when you have a cold and all foods seem to taste the same or have little taste.

Sense of Touch

The sense of touch consists of five sensations: touch, pressure, pain, heat, and cold. The nervous system detects pain, touch, heat and cold and instantly passes these findings to the brain. The nerve endings that detect pain are the most numerous, followed by touch then heat and cold.

The skin contains two main layers: the dermis and the epidermis. The epidermis is the outer layer of skin formed by the cells constantly being pushed up toward the surface. The dermis contains the blood capillaries, nerve endings, fat cells, sweat glands, roots of hairs and other loose connective tissue.

Learning Experience 1: Getting Started- Our Bodies

Objective: Students will identify various body parts and describe ways in which the body part is used in daily life.

Materials:

For each student:

Triple lens magnifier
Mirror

For the class:

Masking tape
Construction paper*
Chart paper*
Felt-tip markers*
Scissors*
Book - My First Body Book

*provided by teacher

Preparation:

Prior to this learning experience, gather and organize materials for the class.

Basic Skills Development:

Observing
Describing
Comparing
Discussing

Evaluation Strategy:

Students will name various body parts and accurately identify ways in which each body part helps in daily life.

Vocabulary:

body

What body parts do we know?

Introduce the unit on the body by asking students to stand in a circle. Go around the circle and ask students to name one of their body parts and how they use that body part everyday or why that body part is important. List the names of body parts on chart paper and read through the list with students. The following finger plays can be used to emphasize the body parts that they may have named.

Touch

*Touch your nose,
Touch your chin.
That's the way this game begins.
Touch your eyes,
Touch your knees,
Now pretend you're going to sneeze.
Touch your hair,
Touch one ear,
Touch your two red lips right here,
Touch your elbows,
Where they bend,
That's the way this touch game ends.*

Me

*I have five fingers on each hand.
Ten toes on both feet;
Two ears, two eyes, one nose, one mouth
With which to gently speak.
My hands can clap.
My feet can tap.
My eyes can brightly shine.
My ears can hear.
My nose can smell.
My mouth can make a rhyme.*

Learning Experience 1 continued

Page 2

What I have...

*Oh, I have 2 eyes, 2 ears, 2
cheeks
And 2 hands and 2 feet
And I have 1 head, 1 mouth, 1
nose
And 10 fingers and 10 toes.*

Clap, Snap

*Let your hands go clap, clap, clap;
Let your fingers snap, snap, snap;
Let your lips go very round,
But do not make a sound.
Fold your hands and close each eye;
Take a breath and softly sigh
Ahhhhh.....*

Wiggle, Wiggle

*I wiggle my fingers,
I wiggle my toes,
I wiggle my shoulders,
I wiggle my nose,
Now no more wiggles are left in
me,
So I will be still as still as can be.*

Head, Shoulders, Knees, and Toes & the Hokey Pokey

could be used to help with
body identification.

Students can also begin to look closely at some of their body parts and describe what they see. A triple lens magnifier can be used for this close examination. For example, students can look at their hands and describe color, lines, fingers, and nails. Students can compare the palm of their hand with the back of their hands (back: knuckles, nails, rough. palm: smooth, lines). Students could look closely at their nose. Placing a mirror behind the hand lens will magnify the pores on their nose. Students will have to experiment with getting the correct distance so the pores are in focus in the mirror. The pores are the opening to the oil glands.

Discussion Questions:

What would happen if we didn't have hands?

What are some activities we use our hands for?

What activities do we do with our hands and we don't even think about it (brushing teeth, etc.)

How do fingers help us daily?

How do our thumbs help our hands/fingers perform our daily tasks?

What do the pores on your nose look like?

Since oil glands are found on your body where hair grows, do you see any hairs growing from the other pores on your face?

What does the oil do for your skin? (keeps it soft, prevents cracking)

Learning Experience 1 continued

Page 3

Students can also examine their feet. Count the number of toes on each foot, compare number of toes with each other. Students can compare the size of each other's feet by tracing their feet on construction paper and cutting them out with scissors. The "feet" can then be lined up by length on a bulletin board or table to create a graph of size of feet. Read to students the My First Body Book.

Discussion Questions:

- Does everyone have the same size foot?
- Does everyone have the same number of toes?
- Who has the smallest foot, the largest?
- How do we use our feet?

Students can also look at how various body parts move. Find the jointed areas of our hands, fingers, toes, arms, and legs. Describe how these various parts move in one direction but not the other.

Perform additional fingerplays on specific body parts:

Hands

*Hands up high
Hands down low
Hide those hands
Now where did they go?
Out comes one
Now there's two
Clap them!
Fold them!
Now we're through*

Right Hand, Left Hand

*This is my right hand; raise it up high,
This is my left hand; I'll touch the sky,
Right hand, left hand, roll them around,
Left hand, right hand, pound, pound,*

Right foot, Left foot
*This is my right foot
Tap, tap, tap
This is my left foot
Pat, pat, pat
Right foot, left foot
Run, run, run
Left foot, right foot
Jump, jump, jump*

Ten Little Fingers

*Ten little fingers
They belong to me
I make them do things
Would you like to see?
I can make them jump high . . .
I can make them jump low . . .
Or I can fold them up quietly
And I hold them just so.*

Learning Experience 2: How We Are Alike/Different

Objective: Students will observe the features of the students in the classroom and compare/contrast these features.

Materials:

For each student:

Mirror
Drawing paper*
Crayons*

For the class:

Book – We Are All Alike...We Are All Different

Measuring tape
Masking tape
Construction paper*
Hole punch*
Graph paper*
Felt tip markers*
Yarn (to bind book)*

*provided by teacher

Preparation:

Prior to this learning experience, gather and organize materials for the class book.

Basic Skills Development:

Observing
Discussing
Describing
Comparing

Evaluation Strategy:

Students will distinguish similarities and differences between their features and the features of their classmates.

Vocabulary:

alike
different

How are we alike and different?

Give each student a mirror. Allow students time to look closely at their face in the mirror. Students can describe what they see. Ask students to draw their faces and refer to the mirror for details. Students can then share their pictures with the class.

Discussion Questions:

What body parts can we name that are on your face?

Have you drawn all your facial parts?

How many eyes do you have?

What color are they?

What are they used for?

What is your mouth used for?

How many teeth do you have?

What is your nose used for?

Pair up students and allow them time to look at each other and describe each other's facial parts. Students can then compare themselves to each other.

Students can compare eye color, hair color, hair texture, skin color, size of features, shape of features, etc. Help students come to the conclusion that we have the same number of facial features, however, the facial features look different because we are all different. Student pairs can sit across from each other and draw each other's faces. Record each student's hair and eye color and graph for comparison.

As students are completing the above learning experience, measure each student's height using the measuring

Learning Experience 2 continued

Page 2

tape provided. Record each student's height and graph heights for comparison. Students could also be lined up against the wall and have their heights measured. The date and their names can be written on tape and changes in height can be charted over time. Check height several times during the year and discuss how much they have grown.

Discussion Questions:

Is everyone the same?

How are we the same (head, legs, feet, etc.)?

How are we different from each other?

After making comparisons between students, read the book, We Are All Alike, We Are All Different. This book was written by kindergartners from Cheltenham Elementary School. As the book is read, students can raise their hands when they hear something that describes them. Also, survey students on their likes and dislikes and the places they live. Create a similar book with students on the differences between the students in the classroom. Give each student a page in the book and ask him or her to provide some information about themselves. The teacher can add a sentence or two to each page as dictated by the student. After reading the book to the class, students should then notice the differences of the students in the class.

Extension:

Take digital pictures of students in class and post them on a bulletin board. Ask students to compare the facial features of each student by observing their picture.

Place them next to their height tapes (above).

Learning Experience 3: Hygiene

Objective: Students will practice the various ways to care for their body and determine why each task is important.

Materials:

For each student:

Mirror
Toothbrush*
Drawing paper*
Crayons*

For the class:

Sponge
Rubber gloves
2 clear rectangular bottles with lids
Teaspoon
Dish soap
Vegetable oil
Hand lotion*
Tooth diagram
Chart paper*
Felt tip markers*
Toothbrush*
Toothpaste*
Pipe Cleaner
Canned Frosting*
Water*
*provided by teacher

Preparation:

Read background information on pages 3-7.

Basic Skills Development:

Observing
Describing
Manipulating materials
Demonstrating
Making decisions

How do we care for our bodies?

Ask students to draw a picture of something that they do to take care of their body and share their picture with the class. Use these pictures as a starting point in discussing how exercising, brushing and flossing teeth (dental health), and bathing/hand washing are all things we do to keep our bodies healthy.

Bathing

Keeping our bodies clean is another way to care for our body. Ask students to discuss why they use soap to take a bath? After students give their explanations, demonstrate for students how soap removes the oil from their skin. First, fill one clear rectangular bottle with lid halfway with water. Add 2-3 drops of dish detergent to the water. Shake the container. Ask students to describe their observations. They may notice the bubbles on the water's surface, however, the water itself clears fairly quickly. Fill the second clear rectangular bottle with lid halfway with water. Add a $\frac{1}{2}$ teaspoon of oil to the water. Ask students to observe the oil on the water's surface. Students will see that the oil and water do not mix. The container can even be shaken and the oil will not mix with the water. Add 2-3 drops of dish detergent to the oil and water. Ask students to observe how the oil reacts to the drops of soap. Shake the container. After the bubble subside the students should observe

Learning Experience 3 continued

Page 2

Evaluation Strategy:

Students will actively participate in the learning experiences that demonstrate the way we care for our body and give reason for their importance.

Vocabulary:

tooth
gums
dentin
pulp
enamel
dental floss

that large amounts of oil is no longer on the water's surface. It is mixed throughout the water. The water has a cloudy appearance compared to that of just soap and water, showing the oil in the water. The oil that is on the surface has been broken into smaller drops. The soap allows the oil to mix with the water. Explain to students that they have oil glands in their skin which produce small amounts of oil. We use soap in our bath or shower to remove some of the oil from the surface of our skin.

Discussion Questions:

Did the oil mix with the water when it was first placed in the jar? (no)
Where was the oil after it was shaken? (on top of the water)
What happened to the oil and water after detergent was added? (the oil mixed with the water)
What caused the oil and water to mix? (the detergent)
If you take a bath without soap, will the oil from your skin mix with the water and be removed from your skin? (no)
What is the purpose of soap? (The soap will cause the oil and water to mix so that the oil can be removed from your skin and washed away.)
What happens when too much of the oil is removed from the skin? (dry skin)

Hand Washing/Glitter Germs

This activity teaches about germs and the importance of hand washing. When finished, students should have a concrete example why they should wash their hands with soap and warm water,

Learning Experience 3 continued

Page 3

and understand that germs are smaller the eye can see. Before beginning, be sure to find out if any students have allergies to hand lotion. Ask students what a germ is? How big is it? Why is it important to wash your hands? After students have had a chance to respond, put a small amount of hand lotion in each student's hands. Have them rub it all over their hands. Next, over a bucket or garbage can, sprinkle a small amount of glitter into each student's hands. Have them rub their hands to spread the glitter evenly. Next, have a few kids try to get the glitter off with dry paper towels. Then, have a few kids try to get the glitter off with plain, cold water. After that, have a few kids use warm water, with soap, to get the glitter off. Let everyone wash his or her hands with warm, soapy water. Refer to page 7 of this manual for the proper hand washing technique.

Discussion Questions

What happened when you tried to get the glitter off with just dry paper towels? Cold water? Warm, soapy water?

Why is it important to properly wash your hands?

Dental Health

Ask students to list the body parts that are located in the mouth. Discuss the role of the teeth (biting and grinding food), tongue (speaking, helps with chewing and speaking), and gums (pink area around your teeth that hold teeth in place). Using hand mirrors, have the students count the number of teeth in their mouths. Create a class graph of the number of teeth in students' mouths.

Show students the diagram of a tooth provided in the kit. The parts of our teeth that we can't see (dentin and pulp) carries the nerves to the tooth. If a tooth decays, the nerves become irritated or infected. Fillings are used to keep the pulp from dying.

Ask students how they care for their teeth to keep them from decaying. List the ways to care for teeth on chart paper. Students may make reference to going to the dentist. Discuss the role of the dentist and his instruments and the dental hygienist.

Ask students to bring in a toothbrush from home, ask students to practice the correct way to brush their teeth. The steps are as follows:

1. *Place bristles along the gumline at an angle(45 degrees). Bristles should contact both the tooth surface and the gumline.*
2. *Gently brush the outer tooth surfaces of 2-3 teeth using a back & forth circular motion. Move brush to the next group of 2-3 teeth and repeat.*
3. *Maintain a 45-degree angle with bristles contacting the tooth surface and gumline.*

Learning Experience 3 continued

Page 4

Gently brush using back, forth, and circular motion along all of the inner tooth surfaces.

4. *Tilt brush vertically behind the front teeth. Make several up & down strokes using the front half of the brush*
5. *Place the brush against the biting surface of the teeth & use a gentle back & forth scrubbing motion. Brush the tongue from back to front to remove odor-producing bacteria.*

Discussion Questions:

Why is it important to visit the dentist?

How does brushing your teeth help your teeth?

Why is it important to brush your teeth? (to remove the stains, keep teeth white, prevent cavities)

After students have practiced how to brush their teeth, demonstrate for students the importance of flossing their teeth. Place a rubber glove over one hand. Hold your hand with the fingers extended but held together. Your hand with the glove should look like you were giving someone a “high five”. Spread your fingers apart and have someone spread canned frosting between your fingers. The frosting should be deep within the finger joints. Tighten the fingers together again. Your fingers represent your teeth, and the frosting is the food that gets trapped between your teeth when you eat. With your fingers still together and held upward, use a toothbrush and toothpaste to try and scrub the frosting away. Being near a water source may be helpful. Use the sponge to assist with cleaning up after the brushing. Be sure you do not move your fingers apart. Look for any left over frosting between the fingers. Ask students what dental cleaning tool could be used to remove the frosting butter. Ask a student to try to remove the frosting by using a pipe cleaner, to represent dental floss. The student can wrap the pipe cleaner (dental floss) around his/her index finger. Slip the pipe cleaner between the fingers (“teeth”) and slide back and forth. Slide the pipe cleaner back and forth with the fingers until it reaches the finger joints (“gums”). Discuss with students which instrument does a better job removing the frosting from in-between the teeth.

A toothbrush simply cannot reach all the places between your teeth. Dental floss can do a better job of removing food from between teeth. If the food is not removed, it can cause gum disease and cavities.

Discussion Questions:

What should we use to clean our teeth?

Can a toothbrush clean between our teeth?

How does dental floss help in our teeth cleaning?

Learning Experience 3 continued

Page 5

Create a class brushing/flossing chart. Ask students to mark on the chart each day if they brush and floss their teeth.

Fingerplays on teeth:

Tooth

*I lost a tooth the other day
And now my smile looks queer.
But I am growing one brand new
And it will soon be here.*

*My daddy has to have one pulled
And he can't grow it new
I'd like to give him my old one
But he said that it just won't do.*

Learning Experience 4: Energizing Our Bodies

Objective: Students will examine the various ways to energize their body and determine why each is important.

Materials:

For each student:

Paper plate
Glue*
Scissors*
Drawing paper*
Crayons*

For the class:

Pictures of nocturnal/diurnal animals
Chart paper*
Felt tip markers*
*provided by teacher

Preparation:

Read background information on pages 3-7.

Basic Skills Development:

Observing
Describing
Manipulating materials
Demonstrating
Making decisions

Evaluation Strategy:

Students will actively participate in the learning experiences that demonstrate the way we energize our body and give reason for their importance.

How do we energize our bodies?

Ask students to draw a picture of something that they do to energize their body and share their picture with the class. Use these pictures as a starting point in discussing how getting enough sleep, exercising and eating right are healthy things we do to keep our bodies energized.

Getting Enough Sleep

Getting enough sleep is very important for our bodies. When our bodies get enough sleep, we feel rested and energized. Ask each student what time he or she goes to bed at night and what time he or she gets up in the morning. Chart the number of hours of sleep students are getting at night. Students should be getting at least 8 hours of sleep. Discuss with students how to get more quality sleep at night.

Discussion Questions:

What time do you go to bed at night?
What time do you get up in the morning?
How do you feel when you get up in the morning?
Do you get at least eight hours of sleep at night?
How could you get more sleep at night?
How could you get a better night's sleep?

Humans are **diurnal** animals. This means that most of our activities (working, eating, exercising) are done during the day. However, there are

Learning Experience 4 continued

Page 2

some animals that sleep during the day and do most of their activities at night (hunting for food, working, moving about). These animals are **nocturnal** animals. Show students the pictures of animals that are nocturnal and the pictures of the animals that are diurnal, which are found in the pocket of the manual. Students can use background information to determine if the animals are diurnal or nocturnal. Discuss the activities of these animals.

Eating Habits

Share with students how the various foods we eat provide the vitamins and minerals our bodies need. Gather magazines for the class to look through and find pictures of various types of food. Once students have a pile of food pictures, classify the pictures into various food groups.

See nutritional pyramid



If various groups are not represented by the pictures, look through magazines until food from each group are found. Students are to then glue pictures onto a paper plate to show a healthy meal. In a healthy (balanced) meal, each food group should be represented. Students can then share their meals with the class. If students are up to the challenge, ask students to classify the food pictures into food one would eat for breakfast, lunch, and dinner. Then ask students to create a well-balanced meal for breakfast, lunch, and dinner.

Discussion Questions:

What are the different food groups?

What kinds of foods do we find in each group?

How do we create a healthy meal?

What would a healthy meal look like?

How does the food enter your body? (goes into the mouth, is chewed, down the esophagus, and into your stomach)

Learning Experience 5: Five Senses

Objective: Students will experience their senses with a popcorn activity then demonstrate their knowledge with the assembly of a senses book.

Materials:

For each student:

Triple lens magnifier
Glue*
Scissors*

For the class:

Book - My Five Senses by Aliki
Plastic jar
Popcorn popper*
Magazine*
Popcorn kernels*
Construction paper*
Hole punch*
Yarn (to bind book)*

*provided by teacher

Preparation:

Read background information on pages 6-8.

Basic Skills Development:

Classifying
Collecting
Discussing
Manipulating materials
Comparing

Evaluation Strategy:

Students will identify the five senses and the body part used in each sense.

Vocabulary:

senses
aware

How are we aware of things around us?

To introduce the five senses, use popcorn. Ask students to close their eyes. Shake the popcorn kernels in a jar, and ask students what they think the sound is. Ask students how they knew it was popcorn (sense of hearing). Allow students time to touch and observe the kernels with a triple lens magnifier. Then pop the popcorn.

Popcorn Song

*Popcorn, Popcorn in the pot.
Popcorn, Popcorn getting very hot.
Popcorn, Popcorn, sizzle, sizzle, sizzle.
Popcorn, Popcorn pop, pop, pop.*

Ask students to tell you what senses they are using to understand that popcorn is popping (sight, smell, hearing). Ask students to observe the popped popcorn with a magnifier and compare its appearance before and after popping. Eat the popcorn with students and ask students what senses they are using to eat the popcorn (taste and touch).

Discussion Questions:

Do the kernels have an odor?
What sense organ did you use?
How do the kernels feel? (hard, smooth)
What sense organ did you use?
(touching with hands)
Describe the appearance of the kernel.
What sense organ did you use?
As the popcorn popped, what sense is being used that was not used when observing the popcorn? (Hearing)
Do you detect a smell now that the popcorn is popping?

Learning Experience 4 continued

Page 2

What sense organ did you use?

Describe the change in the appearance of the popcorn.

How does the popcorn taste?

Did you use all your senses during this learning experience (yes) Name them. (touch, taste, smell, hearing, sight)

Ask students to list other ways they use their senses. Students should tell what sense they use then give their example of how they used that sense.

Songs and Fingerplays on the Senses:

Senses - Bingo

I have five senses that I use everywhere I go.

Sight, Smell, Sound, Taste, and Touch

Sight, Smell, Sound, Taste, and Touch

Sight, Smell, Sound, Taste, and Touch

My senses make me aware.

Singing the Senses to the tune of BINGO:

We use five sense everyday

To help us learn and play.

See, hear, smell, touch, taste.

See, hear, smell, touch, taste.

See, hear, smell, touch, taste.

We use these everyday.

Important Things to the tune of Twinkle, Twinkle, Little Star:

Seeing, hearing, touching, too.

Are important things to do.

Smelling, tasting something new,

Helps us learn the whole day through.

Seeing, hearing, touching, too.

Are important things to do.

The Big Five:

My five senses make up me;

What I hear and what I see.

What I taste and touch and smell-

My five senses serve me well.

Read the book, My Five Senses by Aliki,

Ask students cut out magazines pictures of eyes, ears, noses, hands, and tongues. As a class, remake the five senses book in a "Big Book" format. Have a page for each body part. Students are classifying the body parts by the sense they provide. Students are to place the eyes they cut out on the sight page, noses on the smell page, etc.

Extension:

Using a digital camera, take pictures of students eyes, noses, ears, etc. and use those pictures in the senses book.

Learning Experience 6: Sight

Objective: Students will explore how the eye functions and will use their sense of sight to identify missing objects, detail in objects, and optical illusions.

Materials:

For each student:

My Body Student Activity Book

Mirror

Triple lens magnifier

2 pipe cleaners

Straw

2 pieces 10 cm x 10 cm white paper*

Glue*

Crayons*

For the class:

Pictures of optical illusions (pictures A, B, C)

Eye poster

Chart paper*

Felt tip markers*

Objects around the classroom*

Magazine/newspaper*

*provided by teacher

Preparation:

Read background information on page 7. Pre-cut 10 cm x 10 cm paper for students' optical illusion. Cut one pipe cleaner in half for the creation of "eye glasses".

Basic Skills Development:

Observing

Discussing

Describing

Evaluation Strategy:

Students will describe their observations of eye function and will participate in various activities that use the sense of sight.

Vocabulary:

eye	iris	retina
pupil	optical illusion	
cornea		

How does your eye work?

Begin a discussion with students on how they used their sense of sight. Make a chart of why sight is important.

Discussion Questions:

What did you use your eyes for today?

What did you see on your way to school?

What would it feel like if you could not see?

Focus on how the eye works. Use the poster of the eye to assist in explaining how an eye works so we can see our surroundings.

Explanation:

The iris of the eye is the colored portion of the eyeball. It controls the opening and closing of the pupil. Behind the pupil is the lens. Light is received from the world through the pupil and is focused by the lens. This can be compared to the way a camera works.

To demonstrate ask students if they ever noticed the pupils of their eyes get bigger and smaller depending on the light? They open wide (dilate) in the dark to let in as much light as possible, allowing us to see, then grow smaller as less light is needed. Ask students to look in their mirror. Keep both eyes open, cover your right eye, and count to 20 slowly. Remove your hand look in the mirror, and watch your right pupil shrink.

Learning Experience 6 continued

Page 2

Songs and Fingerplays on the eyes:

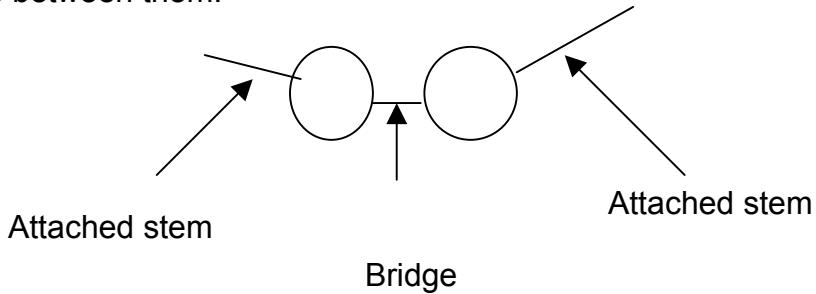
Sing the song *My Eyes* to the tune of *Mary Had a Little Lamb*

*I have two eyes so I can see.
Flowers, trees, birds, and bees.
I have two eyes so I can see.
I can see you and me.
My two eyes see left and right,
Black and white, 'n colors bright.
My two eyes see left and right.
I see in day and night.*

My Eyes...

*Here are my eyes,
One and two.
I give a wink.
So can you.
When they're open,
I can see light.
When they're closed,
It's dark like night.*

Use pipe cleaners make pretend eyeglasses. Cut one pipe cleaner in half. Each half becomes a stem for the glasses. The other pipe cleaner can be formed into two circles with a bridge between them.



The eyeglasses draw the students' attention to their eyes. Display several objects in front of the class and ask students to name each object. Ask students to close their eyes. Take one object away. Ask students to open their eyes and identify the object that was taken away. To make the game more challenging, take more than one object away. Another game to play with students to test their sense of sight is "I Spy". Spy an object in the classroom for student to guess what object you are describing. Emphasize that our eyes are helping us play the game. Have students describe their observations. Provide students with triple lens magnifiers and several objects from around the classroom or outside the classroom. Newspapers or magazines could also be used. Ask students to draw the object in the first box on the activity sheet for Learning Experience #5 in the My Body Student Activity Book. Take a close look at the objects with the triple lens magnifiers and discuss with students what they see with the magnifiers that they did not see before. Give students time to get a feel for the distance that is needed to get the print in focus. Emphasize the detail in the objects observed.

Learning Experience 6 continued

Page 3

Ask students to draw the object again in the second box on their activity sheet with the detail they observed with the magnifier.

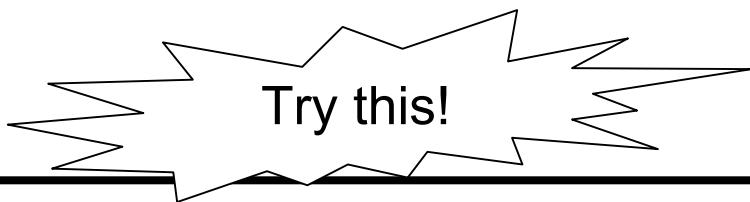
Session 2

Sometimes our eyes play tricks on us. The brain takes cues from images received from the eyes to help it interpret what is being seen. The cues deceive us into thinking we see something that is not true, or is not even there. These are called **optical illusions**. Show students the optical illusions provided on picture cards A, B, and C. Ask students what they see in the pictures. If students can't see both pictures, point the different views out to them.

Picture A: Do you see a duck or a rabbit? The image fluctuates between two possibilities even though the image on the retina is constant.

Picture B: This picture is similar to Picture A. Do you see an Eskimo looking into the snow or do you see a Native American Indian? If you stare at the object for too long your eyes will get tired of seeing one part of the picture and reverse it. The other way of seeing the picture is then visible.

Picture C: Do you see the profiles of 2 heads or a vase? They are both present, but you will not be able to see both of them at the same time.



Students can create their own optical illusion. Provide students with two pieces of white paper cut to 10 cm x 10 cm, one straw, and glue. On one piece of paper draw a fish bowl and on the other piece of paper draw a fish. Glue the pieces of paper together with the straw between the paper. Roll the straw back and forth between your hands. If you roll the straw quickly, the fish will appear to be in the bowl. Further optical illusions can be found on various websites or in books found in your school library.

Learning Experience 7: Hearing

Objective: Students will explore how the ear functions and differentiate between different sounds.

Materials:

For the class:

Ear poster
Blindfold
Film canisters filled with various objects
Book – The Listening Walk by Paul Showers
Bell (or similar sound)*
Chart paper*
Felt tip markers*

*provided by teacher

Preparation:

Read background information on page 8.

Basic Skills Development:

Describing
Discussing
Manipulating
Materials

Evaluation Strategy:

Students will use their sense of hearing to compare various sounds.

Vocabulary:

ear
eardrum
hearing

What sounds do you hear everyday?

Begin a discussion with students on how they used their sense of hearing. Make a chart of why hearing is important.

Discussion Questions:

What did you use your ears for today?
What did you hear on your way to school?
What would it feel like if you could not hear?

Focus on how the ear works. Use the poster of the ear to explain how an ear works so we can hear our surroundings.

Explanation:

The ear converts sound energy into nerve impulses. Sound waves enter the human body through the ear. They travel through a small tube called the auditory canal to the eardrum. The three tiny bones behind the eardrum (hammer, anvil, and stirrup) carry vibrations to the inner ear. The auditory nerves in the inner ear relay the impulses to the brain. Sound is then identified.

Students are to close their eyes and use their sense of hearing to recreate sound patterns. Make up a rhythmic pattern by clapping hands or tapping feet. Musical instruments could also be used. Students are to use their sense of hearing to repeat the pattern. Another way to complete this learning experience is to call on one student to repeat the pattern and if the student responds correctly, he/she makes up a

Learning Experience 7 continued

Page 2

different pattern and calls on another student to repeat it. In order for students to see why two ears are important to identifying sound direction, ask one student to put on a blindfold, listen for a bell, and point in the direction the sound came from up, down, behind, in front of, to the left, right, or middle. (This learning experience also reinforces positional and spatial terminology). Ask the student to cover one ear. Ask the student to give indication of where the sound is coming from. The student may not be able to give accurate direction because we need both our ears to receive clues that tell us from which direction sound is coming.

Test student accuracy of sound identification by using the film canisters filled with various objects. Small groups of students can try to match the sounds of what is contained in the film canisters. Students are to shake the various film canisters and try to find two film canisters that make a similar sound. The symbols on the bottom of the film canisters tell students if they have found the correct match. This learning experience could also be done as a whole class activity. Ask students what they think may be in the film canisters making each sound. At end of the learning experience, students can open the canisters to see what was making the sounds.

Symbol on bottom of canister

Paper Clips 

Gravel 

Washers 

Sugar 

Beans 

Marbles 

Macaroni 

Screws 

Buttons 

Popcorn 

Empty 

Learning Experience 7 continued

Page 3

Discussion Questions:

What objects do you think is making the sound in this container?

How would you describe each sound?

What does each sound remind you of?

Session 2:

Ask students to give examples of their favorite sounds or noises. Provide time for students to describe their sound and explain why it is their favorite sound. Read the story, The Listening Walk by Paul Showers. After finishing the book, ask students to be very quiet, close their eyes and listen very carefully for different sounds within the school. Ask students to point to a sound that they hear. Students can describe their sound and what they think it is. Take students on a listening walk on school grounds. Students must be very quiet to hear the unique sounds. Ask students to describe the sounds they hear, similar to the character in the book.

Extension:

Discuss with students how hearing-impaired people interact with the world and how they have to use their other senses such as feeling vibrations. Also, discuss how they communicate using sign language.

Learning Experience 8: Touch

Objective: Students will use their sense of touch to describe the texture of various objects and identify various objects by their shape and texture.

Materials:

For the class:

Various types of fabrics (felt, velvet, corduroy, burlap, satin)

Sandpaper

Wax paper

Aluminum foil

Coffee filter

Cotton balls

Dry sponge

Ping pong ball

Styrofoam ball

Blindfold

Objects around the classroom*

Large grocery bag*

*provided by teacher

Preparation:

Read background information on page 10.

Basic Skills Development:

Manipulating Materials

Discussing

Evaluation Strategy:

Students will describe objects using appropriate words that describe texture.

Vocabulary:

touch

texture

Why is it important to “feel” your surroundings?

Put the different types of fabrics and different household products suggested in the materials list in the middle of a table. Ask the students to look at the materials and describe what they look like and might feel like. Ask students to then pick up the different fabrics and describe how they feel.

Discussion Questions:

What do you think each type of fabric/product looks like?

What does the fabric/product feel like?

Which fabric/product is rough? smooth?

Which fabric/product is hard? Soft?

Which fabric/product feels sticky?

Heavy? Light? Sharp? Wet? Bumpy?

Hot? Cold?

What other words would you use to describe the material?

What familiar things does the fabric/product feel like?

What part of your body did you use to feel the different fabric/product?

Introduce the word **texture** to students. By using our hands, we can feel an object's surface and describe its texture.

Blindfold students. Put various objects in a large grocery bag. Ask students to put their hands in the bag and feel for an object in the bag. Students are to use their hands and try to guess what the object is that they are holding. Students can then pull the object out of the bag to see if their guess was right. Students

Learning Experience 8 continued

Page 2

can then provide evidence of what made them think it was one object or another. Objects in the bag can be the original fabric/products used in this learning experience and/or additional objects from around the room (blocks, cars, coins, marbles, etc) can be used in the bag. If you do not want to blindfold students, simply place items in a dark pillowcase and feel them through the pillowcase.

Session 2:

Review with students the textures of the different fabrics/products they felt with their hands. Ask students if they think objects around the room would feel differently if they touched them with their feet. Ask students to take their shoes and socks off and feel three objects around the room with their feet. Objects could include a tile floor, rug, chair. Have students feel the objects with their hands first then describe if the objects feel different on their feet. Compare the results by using a chart showing how the texture of the objects are described with their hands and if they feel any differently by using their feet.

Area of the room/object	Texture felt with hands	Texture felt with feet

Learning Experience 9: Smell

Objective: Students will identify various scents using their sense of smell.

Materials:

For the class:

Vanilla
Cotton balls
Lemon
Vinegar
Peppermint extract
Orange extract
Chart paper*
Felt tip markers*

*provided by teacher

Preparation:

Read background information on page 9. Caution the students that the liquids are for smelling not tasting.

Basic Skills Development:

Discussing
Describing

Evaluation Strategy:

Students will use their sense of smell to describe various scents provided and give reason why their sense of smell is important.

Vocabulary:

odor
smell

How does our nose help us?

Create a T-chart in which students list their opinions of good smells and bad smells.

Good Smells	Bad Smells

Discussion Questions:

What smells do you consider good smells?

What smells do you consider bad smells?

Why are they bad smells?

What part of your body allows you to smell these smells?

How can your sense of smell help you?

Five different liquids with different smells have been provided in the kit. Place each liquid on a cotton ball. Cotton balls can be passed around the classroom for students to smell or a station can be set-up in the classroom for students to experience the different smells.

Students can guess the smells on the cotton ball or students can try to match the smell on the cotton ball with the different containers. Container labels of the different liquids would need to be covered.

Discussion Questions:

What do you smell on each cotton ball?
Does the smell remind you of something on the cotton ball?

Learning Experience 9 continued

Page 2

Students can bring in items with odors from home to share with the class, or take an “odor walk” around the classroom or schoolyard. Encourage students to smell various objects around the room that they normally would not smell. Decide if the objects smell good, bad, do not smell much, or not at all. Also, discuss with students the various smells they are familiar with that go along with specific holidays, seasons, lunches, etc.

Sing the song My Nose to the tune of 10 Little Indians:

*My nose it knows
How to smell a rose
My nose it knows
Not to smell my toes
My nose it knows
Which cookie I chose
What a smart nose
Have !!*

Learning Experience 10: Taste

Objective: Students will identify the various taste locations of the tongue and test these locations by placing various substances/liquids on the tongue.

Materials:

For each student:

My Body Student Activity Book

Triple lens magnifier

2 cotton swabs

Mirror

Water*

For the class:

Salt

Sugar

4 9 oz tumblers

Black construction paper

Book – Taste by Sue Hurwitz

Teaspoon

Water*

*provided by teacher

Preparation:

Read background information on page 9.

Basic Skills Development:

Observing

Discussing

Manipulating materials

Describing

Generalizing

Vocabulary:

tongue

papillae

How do we taste our foods?

Place the two jars labeled A and B in front of students. One jar (Jar A) contains sugar and one jar (Jar B) contains salt. The contents of the jar are to remain a mystery to students. Ask students what they think is in the jars by looking at the substances. Some of the substance could be placed on black construction paper for further student observation with triple lens magnifiers. Students will find that they may not be able to tell for sure what the substances are. Ask students what sense could we use if the sense of sight is not useful. Some may say the sense of smell. That sense may help for some of the substances, but it does not help much with salt and sugar. The sense of taste is what we could use. Using cotton swabs that have been moistened with water, place some sugar on one end of the cotton swab and place salt on the other end of the cotton swab. Students are to taste the substances and discover that the substances taste different even though they look the same.

Discussion Questions:

Are the substances the same?

How do you know they are not the same?

What helped you discover the substances were different?

What sense (s) did you use?

The book, Taste by Sue Hurwitz can be used throughout this learning experience. The book is divided into small chapters that will help students better understand their sense of taste.

Learning Experience 10 continued

Page 2

Students can take their mirrors and look at their tongues for the appearance of papillae. Taste buds are too small to see, but they are between the papillae. Taste buds help us taste what is in our mouth. Diagrams in the book will help students see the structure of their mouths and how their tongue is attached in their mouth.

Sing the song We Use Our Tongues to the tune of -- Mary Had a Little Lamb:

We use our tongues to taste our food,
Taste our food, taste our food.
We use our tongues to taste our food.
Pretzels are salty.
(Adapt the last line to describe other foods.)

Sing the song My Tongue to the tune of-- I'm a Little Teapot

I have a tongue with tastebuds
So when I eat
I know if my food is bitter
Or sweet.
My tongue can tell salty
From sour too.
It tells me what
I like to chew!

Discussion Questions:

How does our sense of smell help our sense of taste?
What happens when we plug our nose and try to taste foods?
What does food taste like when we have a cold?

Discuss the relationship between our sense of smell and sense of taste. Seventy-five percent of what we perceive as taste actually comes from our sense of smell. Odor molecules from food give us most of our taste sensation. When food is put in our mouth, odor molecules from that food travel through the passage between our nose and mouth to the olfactory receptor cells at the top of the nasal cavity. Ask students to make the relationship between how food tastes when we have a cold and do not have a cold. When our nose is filled with mucus, the odor molecules cannot reach the olfactory receptor cells. Our brain does not receive a signal identifying the odor. Therefore, everything you eat tastes the same.

Learning Experience 11: Healthy Body Journal

Objective: Students will maintain a journal to help them become more aware of their daily healthy habit.

Materials:

For each student:

My Body Student Activity Book

Scissors*

Stapler*

*provided by teacher

Preparation:

Read background information on pages 3-6.

Basic Skills Development:

Recording

Describing

Evaluation Strategy:

Students will maintain a journal to keep track of one week of healthy habits.

Vocabulary:

healthy

fitness

habit

How might we identify our health or fitness habit?

Students will make a healthy body journal. This journal can be made at school or taken home and be completed with parents.

The healthy body journal can be found on the activity sheet for Learning Experience #10 in the My Body Student Activity Book.

The purpose of the journal is to help the students be responsible for a lifetime of health and fitness. Recording the activities throughout the week allows students to visualize a weeks worth of healthy habits.

Have students cut each of the pages out of the activity sheet so they can fold each page in half and cut down the middle. Have students sequence the pages and staple the pages together.

Discussion Questions:

Do you brush your teeth daily?

Do you drink eight glasses of water daily?

Do you exercise daily?

Do you clean your body everyday?

What foods do you eat daily?

MORE IDEAS

Language Arts

- ◆ Play “What food am I?” Have students describe their favorite food by telling its color and how it smells, feels, and tastes. Then ask the rest of the class to guess what it is. Example: My favorite food can be different colors, smells, and taste sweet, feels smooth and sticky. You can eat it from a bag or stick. What is it? Cotton Candy.
- ◆ Research other animals (not mentioned in this unit) that have a nocturnal lifestyle.
- ◆ Prepare a set of picture-word cards. Glue sandpaper on the “rough” card, wax paper on the “smooth” card, cotton on the “soft” card, a picture of a fire on the “hot” and a picture of an ice cube on the “cold” card. Pass cards around for students to touch.

Book Suggestions:

Brown Bear, Brown Bear, What Do You See? by Bill Martin
Too much Noise by Ann McGovern
You Can't Smell A Flower With Your Ear by Beverly Collins
The Magic School bus Explores the Senses by Joanna Cole
Busy Bunnies Five Senses by Teddy Slater
How Do Your Senses Work? by Judy Tatchell
The Five Senses: Touch by Margia Parramon
Arthur's Tooth by Marc Brown
The Tooth Book by Dr. Seuss
How Many Teeth by Paul Showers
Just Going to the Dentist by Meren Mayer
Elliot's Bath by Andrea Beck
The Edible Pyramid by Loreen Leedy
Good Enough to Eat by Lizzy Rockwell
When I Eat by Mandy Suhr
Food fort Healthy Teeth by Helen Frost

Math

- ◆ Have ten buttons of increasing size and an envelope. Have students remove the buttons and arrange them – left to right- in increasing size. When a student can arrange buttons in correct order, blindfold him/her to ask the student to do this task. Then discuss how it feels to do this task without the use of his/her eyes.

Arts

- ◆ Blindfold a student for 5-10 minutes (I use an older student or adult as a helper) have the student explore the classroom and tell the location he/she is at and how it feels to not have the use of his/her eyes.

Physical Education

- ◆ Play “Monkey See – Monkey Do”. Divide students into pairs and have them face each other. Have one student make a movement, the other student tries to mirror the movement.

Music

- ◆ Use a xylophone – hit a long bar – hit a short bar. Which bar makes the higher sound? (the shorter bar gives off the higher sound. The shorter the length, the higher the pitch. The longer the length the lower the sound).
- ◆ Divide students into small groups. Provide each group with some musical instruments. Have students discover sounds the instrument can make. Have students demonstrate loud and soft sounds that they can make with the instruments. This is a good outside activity.

Science

- ◆ Ask students to bring in nutritious snacks to taste, such as vegetables, fruits, cheeses, crackers, breads, seeds, and nuts. As the class is having their tasting snack, discuss what tastes they are experiencing. Use the four word cards salty, sour, bitter, and sweet to make a list of the food student's taste.
- ◆ Play “Where Am I?” Blindfold students or let them close their eyes. Stand somewhere in the room and ask “Where am I?” Have students point to the direction where your voice came from. Can also play by producing a sound such as tapping, clapping, singing, whistling, etc.
- ◆ Fill little bowls with items such as salt, flour, rice, beans, water, or ice. Use the words touch, soft, silky, smooth, rough, bumpy, cool, warm, icy, sticky, hard. Have students place his/her hand in first bowl and feel what is inside. “How does the salt feel?” Use words soft, smooth. After the student feels two or three different items, blindfold student. Place one of the bowls in front of him/her and play a guessing game. “What does this feel like?” Let the child try this guessing game on you and other students. Gradually add more items to the game.
- ◆ Have two sets of objects of different textures, such as:
 - 2 pieces of sandpaper
 - 2 pieces of velvet
 - 2 pieces of cardboard
 - 2 rubber balls
 - 2 marbles
 - 1 shoe box
- ◆ On each side of the shoebox, cut a hole large enough for a child's hand. Put the two sets of objects inside the box. Have each child reach in and take out two objects that feel the same. If the student doesn't match a set, let him/her try again until successful.
- ◆ You will need pictures of different objects. Example: car, airplane, truck, dog, cat, house, TV, elephant, and a flannel board. Place pictures at random on the flannel board. Have students study the picture. Then have students turn his/her back while you remove one (two) pictures. Have students turn around and try to

tell which picture(s) is missing. As a follow-up, discuss the visual characteristics of objects such as size, color, shape.

- ◆ Two sets of smelling cups
 - 2 cups with onion slices
 - 2 cups with peanut butter
 - 2 cups with peeled banana
 - 2 cups with lemon slices
 - 2 cups with cinnamon
 - 2 cups with black pepper
 - 2 cups with peppermint extract
 - 2 cups with vinegar
 - 2 cups with garlic
 - 2 cups with orange slices
 - 2 cups with perfume

Cover the cups with foil and poke small holes in the foil. Set 2 cups of onion and 1 cup of cinnamon on a table. Let the students find the two cups that have the same smell. Keep playing, changing smells each time. Increase the number of cups from which a student must select the like pair.

- ◆ Let the students produce sounds with different parts of their bodies: hands, legs, tongue, teeth, whole body. Have students close their eyes, produce a sound with one part of your body. Have children close their eyes and guess what part produced the sound they heard. Let students take turns producing different sounds for the other students to guess.
- ◆ Give each student a sheet of paper and have him or her produce a sound with it (shake, food, tear, crumple, etc.). Give students as many sheets of paper as they need to produce the various sounds. Have students close their eyes, produce a sound and have them guess how it was produced.

INQUIRY AND PROCESS SKILLS

Classifying	Arranging or distributing objects or events in classes according to some method of system.
Collecting Data	Obtaining visible or measurable information which illustrates a specific situation.
Communicating	Displaying or transmitting information to others.
Generalizing	Drawing general conclusions from information.
Formulating Hypotheses	Constructing a proposition or assumption of what is thought likely to be true based on reasoning, which serves as a tentative testable theory.
Identifying Variables	Recognizing characteristics of objects or events, which are constant or change under different conditions.
Inferring	Making a statement based on reasoning to explain an observation.
Interpreting Data	Analyzing information that has been collected and organized and describing apparent patterns or relationships for information.
Making Decisions	Choosing an alternative from among several and basing the judgment on defendable reasons.
Manipulating	Handling or treating materials from among several and basing the judgment on defendable reasons.
Measuring	Making quantitative observations by comparing to a standard.
Observing	Becoming aware of an object or event by using any of the senses to identify properties.
Predicting	Making a forecast or estimate of what future events may occur.
Replicating	Performing acts that duplicate demonstrated symbols or patterns.
Using Numbers	Stating and applying mathematical rules or formulas to calculate or compute quantities for basic measurements.

GLOSSARY

- Alike: similar in appearance or character.
- Aware: having knowledge of something because of observing it or being told about it.
- Body: physical form of an animal.
- Cornea: transparent “window” at the front of the eye that covers the iris and pupil and provides most of the eyes optical power.
- Dental Floss: thread used to remove food and plaque from between teeth.
- Dentin: calcium part of the tooth below the enamel containing the pulp chamber and root canals.
- Different: not the same as something or someone else.
- Diurnal: used to describe animals that are active during the day rather than at night.
- Ear: the organ of hearing and balance in vertebrates. It is divided in three parts. The external ear collects sound, middle ear contains small bones that amplify and transmit it, and the inner ear maintains balance and contains nerve endings for detecting sound.
- Ear drum: a membrane of thin skin and tissue that vibrates in response to sound waves located between the external and middle ear.
- Enamel: a hard ceramic which covers the exposed part of your teeth.
- Eye: the organ of sight, usually occurring in pairs. The rod and cone cells in the retina convert light into impulses sent to the brain for interpretation.
- Gums: pink area around your teeth holding them in place.
- Hearing: the perception of sound made by vibratory changes in air pressure on the ear drum.
- Iris: colored part of the eye consisting of a muscular diaphragm surrounding the pupil that regulates the light entering the eye by expanding and contracting the pupil.
- Nocturnal: used to describe animals active at night rather than during the day.

- Odor: smell or scent.
- Optical illusion: a visual experience in which there is some kind of false perception of what is actually there.
- Papillae: a small bump on the tongue enclosing the taste buds.
- Pulp: the soft inner structure of a tooth consisting of nerve and blood vessels.
- Pupil: circular opening in the center of the iris that regulates the amount of light that enters the eye.
- Retina: converts images into electrical impulses sent along the optic nerve to the brain.
- Senses: used by an animal to obtain information about the physical world.
- Smell: to detect or recognize something by the nerves in the nose.
- Texture: the feel and appearance of a surface.
- Tongue: the movable organ in the mouth used for tasting, swallowing, and in humans speech.
- Tooth (Teeth): any of the hard whitish objects arranged in two arched rows inside a human / vertebrate animals mouth used for biting and chewing food.
- Touch: to put part of the body in contact with something in order to feel it.

TEACHER REFERENCES

Levenson, Elaine Teaching Children About Life and Earth Sciences TAB Books
Kathleen Grandusky - Senses Song
Sense - Abilities 1998 Chicago Review Press Inc.

Media Library

Call the media library to order media materials and to check on new materials that are available. The number to be reached is (716) 376-8212.

Web Sites

<http://www.healthyteeth.org>
www.dole5aday.com
www.healthychoices.org
www.surfnetkids.com/teeth.htm
www.kidshealth.org
<http://www.mypyramid.gov/>
[http://media2.caboces.org/htbin/wwform/118?TEXT=R23378327-23384431-
/CA/WWI770.HTM](http://media2.caboces.org/htbin/wwform/118?TEXT=R23378327-23384431-/CA/WWI770.HTM)