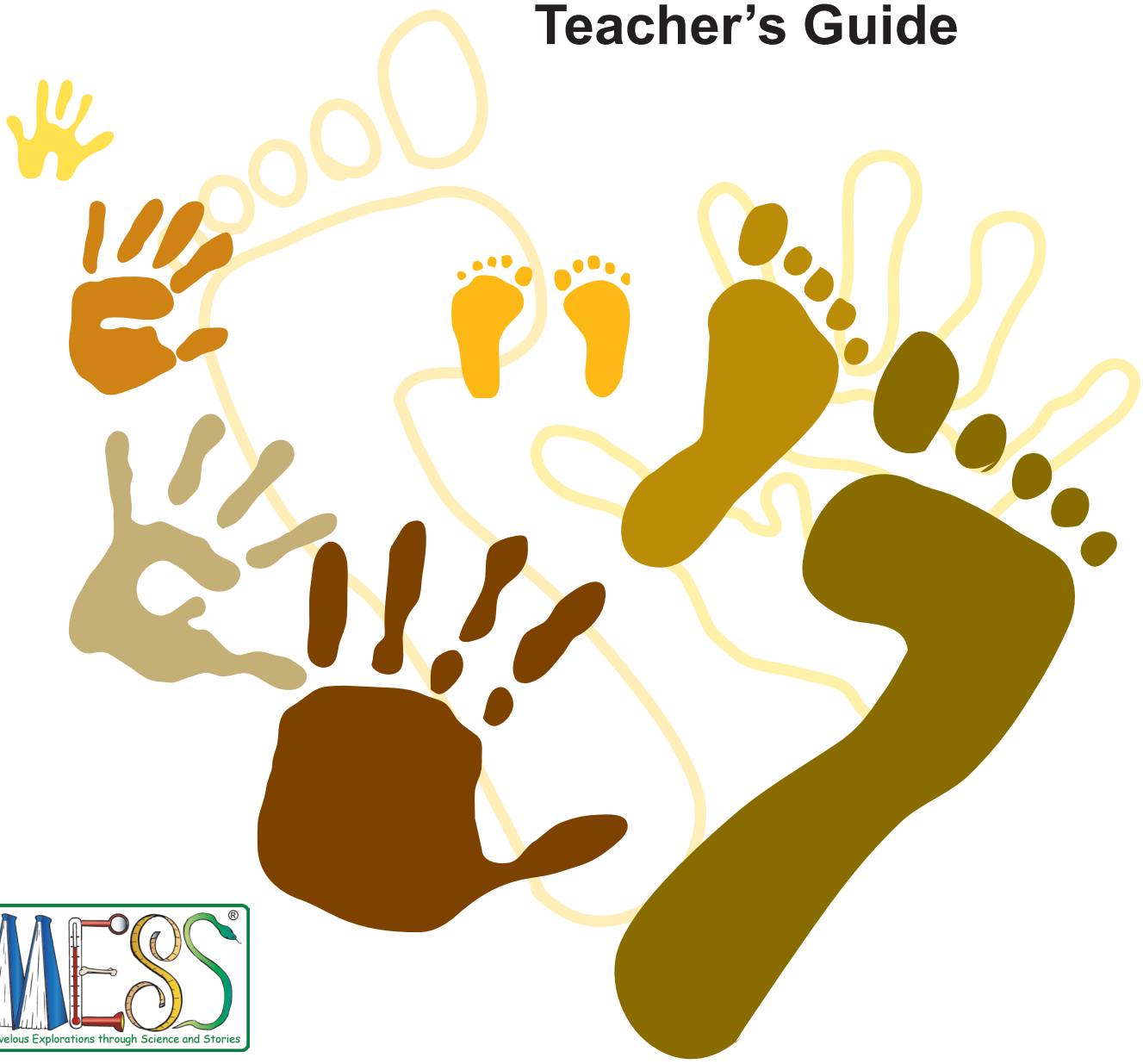
My Body My Senses

Teacher's Guide



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Marvelous Explorations through Science and Stories

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My Body My Senses

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My Body My Senses

Teacher Background Information

What is the focus of this guide?

This guide introduces children to the human body and the five senses. Experiences in the guide cover the major body parts and what they do. Children also will use their senses of sight, touch, smell, taste, and hearing to learn about the world.

What science concepts are covered in this guide?

- Humans are living things that need food, air, shelter, and water to survive and can move, grow, and reproduce.
- Human bodies have many different parts, each with special functions.
- We learn by using our senses.
- We use tools to collect data and extend our senses.

What are humans?

Humans are **vertebrates**; they have a backbone and a brain encased in a skull. Humans belong to the group of animals called mammals. **Mammals** have fur or hair, special ear bones, and nurse their young.

What are the parts of the human body?

The human body is composed of many parts, each of which serves a special function. Young children can most readily learn to identify external body parts. Two very useful external parts of the body are hands and feet. The human hand consists of the wrist, palm, four fingers, and thumb. The human thumb is **opposable**. This means it can touch each of the four fingers and the palm. An opposable thumb lets us grasp and manipulate objects of many sizes and shapes.

The foot provides the body with support, balance, and mobility. Important parts of the foot include the toes, arch, and heel. The foot is linked to the ankle at the heel. The top of the ankle is connected to the bones of the lower leg, forming a hinge that allows the foot to move up and down. Between them, the foot and ankle contain 26 bones, 33 joints, and over 100 muscles, tendons, and ligaments!

My Body/My Senses

There are many internal parts to the human body, beginning with the microscopic **cells** that are the building blocks of all living things. Most cells are grouped into **organ** systems that have specialized functions.

The Nervous System

The nervous system is composed of the brain, spinal cord, and a vast network of nerves that thread throughout the body. The **brain** is the control center of the body. It monitors and controls unconscious body functions like breathing and heart rate, and coordinates most voluntary movement. The brain also stores and processes information provided by the five **senses**. The brain lets a person think, learn, remember, imagine, and dream.

Messages travel to and from the brain to other body parts along **nerves**. The main nerve pathway between the brain and other body parts is the **spinal cord**.

The Skeletal System

The **skeleton** supports the human body. The skeleton of a newborn infant has more than 300 bones. Over time, some of the bones fuse together. The average adult human skeleton has 206 bones. **Bones** protect and support the soft parts near them. For example, the **rib cage** protects the heart and lungs, the **spine** protects the spinal cord, and the **skull** protects the brain.

Although individual bones are stiff, the body can bend and move because bones are linked to each other at flexible, movable **joints**. Joints are held together by strong fibers called **ligaments**.

Teeth also are part of the skeletal system. Although teeth begin forming before birth, they first become visible when babies are six or seven months of age. Most children have their first complete set of teeth by about age three.

The Muscular System

The human body contains over 600 **muscles**. **Voluntary muscles** move when a person directs them. **Involuntary muscles**—such as the heart—operate automatically.

Many muscles work in pairs; one muscle pulls the bones one way and bends the joint, and another muscle pulls the bones the other way and straightens the joint. Most of the muscles are attached to bones by strong cords called **tendons**.

The Respiratory System

The **respiratory system** includes the **lungs** and the air passages that lead to them. When we **inhale**, or breathe in air, the lungs stretch and expand. The air contains **oxygen**, which we need to stay alive. Excess gases that the body cannot use are released from the body when we breathe out, or **exhale**.

The Circulatory System

The heart, arteries, veins, other **blood vessels**, and blood make up the **circulatory system**. The **heart** is a pump located in the center of the chest. It is about the size of a fist. When it beats, the heart pushes **blood** around the body through a system of **arteries**, **veins**, and other vessels. Blood moving away from the heart delivers oxygen and nutrients to every part of the body. On the return trip, the blood picks up waste products so that the body can get rid of them.

When we exercise, the heart pumps faster in order to bring needed oxygen to the muscles. Exercising also makes the heart stronger. We can listen to the heart beat using a stethoscope. We also can feel the heart beat on the wrists and the sides of the neck.

The Digestive System

The **digestive system** includes the esophagus, stomach, intestines, liver, and pancreas. After food is chewed, it goes down a tube called the **esophagus** to the **stomach**. Once the food enters the stomach, muscles mash and mix the food with special fluids that break the food down into smaller and smaller pieces. The mashed food goes into the **small intestine** where it breaks down even more. Useful parts of food are passed into the blood stream which distributes the **nutrients** throughout the body. Waste food goes into the **large intestine**. Waste is expelled from the intestine through the **anus**. The intestines of an adult human are about 26 feet long—the length of two average cars or the height of a two story house!

My Body/My Senses

The Urinary System

The body makes chemical waste products from food it cannot use. The products enter the blood stream and travel to the **kidneys**, which filter out the excess fluids and chemical waste. These fluids enter the **bladder** and are eliminated through the **urethra**.

What is skin?

Skin is the largest organ in the body. Skin is made of many layers of cells. It protects the various body systems by keeping germs and water out, and body fluids and salt in. Skin helps keep our bodies at the right temperature and is the sense organ for touch. A **pigment** called **melanin** gives skin its color. More melanin in the skin makes it darker; less melanin makes it lighter. When we go out into the sun, cells make extra melanin to protect us from the sun's **ultraviolet** rays.

Although most humans have the same basic body parts, every body is unique. One example of this is **fingerprints**. The tips of the fingers are covered with fine ridges that form before we are born and remain the same throughout life. The ridges can split and come together in an infinite number of ways. Consequently, no two people have fingerprints that are exactly the same. Not even identical twins!

Please note!

Food allergies are common. We have placed a ⚠ near every experience that involves food to remind you to check for food allergies and to complete any required paperwork.

My Body/My Senses

Teacher Vocabulary

anus – opening in the body where bowel movements come out

artery – blood vessel that carries blood away from the heart

bladder – part of the urinary system that stores the liquid (urine) produced by the kidneys until it can be excreted

blood – red liquid that carries oxygen and nutrients throughout the body

blood vessels – network of tubes through which blood flows around the body

bone – hard (but not dead) part of the skeleton

brain – thinking center of the body housed in the skull

cell – tiny building block that makes up the body

circulatory system – related body parts that move blood through the body

digestive system – related body parts that break food down into nutrients

esophagus – food tube that leads from the back of the throat to the stomach

exhale – to breathe out

fingerprint – skin pattern formed by the ridges on fingertips

heart – muscle that pumps blood throughout the body

inhale – to breathe in

involuntary muscle – muscle that moves automatically, such as the heart

joint – place where bones come together

kidney – part of the urinary system that filters out excess fluids and chemical waste

large intestine – final portion of the digestive system where feces or waste forms

ligament – strong fiber that holds bone to bone

lung – air sacs in the chest that fill with air when a person breathes in

My Body/My Senses

mammal – class of animals to which humans belong; mammals have fur or hair, special ear bones, and produce milk for their young. Most give birth to live young (rather than laying eggs).

melanin – pigment that gives color to the skin, eyes, and hair

muscle – structure that makes people or substances within their bodies (like blood) move

nerve – cells that carry messages between the brain and the rest of the body

nutrient – substance in food that sustains the body's functions

opposable – ability of the human thumb to move inward and touch all fingers and the palm of the hand

organ – a relatively independent part of the body that carries out a function or group of functions; examples include the heart, lungs, liver, stomach, and brain

oxygen – kind of gas that animal bodies need in order to function

pigment – coloring substance

respiratory system – related parts of body that deliver oxygen and remove excess gases throughout the body

rib cage – bones in the chest that protect the heart and lungs

senses – seeing, hearing, touching, smelling, and tasting

skeleton – framework made up of all of the bones of the body

skin – outer tissue layers of a body

skull – part of the skeleton that encases and protects the brain and many of the sense organs

small intestine – portion of the digestive system located between the stomach and the large intestine where most nutrients are absorbed into the blood

spinal cord – primary nerve pathway between the brain and the rest of the body

spine – backbone made of separate bones that support the body but allow it to bend

stomach – part of the digestive system where muscles and special juices break food down into smaller pieces

tendon – strong cords that attach muscles to bones

ultraviolet (UV) rays – portion of the sun's rays; excessive exposure can damage the body

urinary system – related parts of body that remove waste products

urethra – opening in the body where urine comes out

vein – blood vessel that carries blood back to the heart

vertebrate – animal having a backbone and a brain encased in a skull

voluntary muscle – muscle that moves with conscious control

MESS® Materials for Core and Center Experiences

Materials	Books
Experience 1: Introducing the Body	
poster with labels of the basic parts of the human body photos of basic parts of the body	*Here Are My Hands* by Bill Martin, Jr. and John Archambault *Eyes, Nose, Fingers, and Toes* by Judy Hindley *Goodnight Feet* by Constance Morgenstern *We're Different. We're the Same* by Bobbi Jane Kates *Incredible Me!* by Kathi Appelt *I Like Myself!* by Karen Beaumont
Experience 2: The Five Senses	
popcorn popper small cup or container unpopped popcorn kernels bowls or napkins	*See, Hear, Touch, Taste, Smell* by Melvin Berger *My Five Senses* by Aliki *My Five Senses* by Margaret Miller *It All Makes Sense!* by Sam Godwin *Sense Suspense* by Bruce McMillan *The Five Senses* by Jane Belk Moncure *Me and My Senses* by Joan Sweeney
Experience 3: The Sense of Sight	
peephole books (see instructions on page 17)	*See, Hear, Touch, Taste, Smell* by Melvin Berger *Take Another Look* by Tana Hoban *Look! Look! Look!* by Tana Hoban *Just Look* by Tana Hoban *Look Again!* by Tana Hoban *A Closer Look* by Mary McCarthy *Mouse Views* by Bruce McMillan *Seven Blind Mice* by Ed Young *I See Myself* by Vicki Cobb
Experience 4: Introducing Magnifying Tools	
hand-held magnifying lenses objects to magnify	*A Closer Look* by Natalie Lunis *What Is a Scientist?* by Barbara Lehn *Bug Safari* by Bob Barner

Materials	Books
Experience 5: Hands	
photos of cat's paw and child's hand sock or thumbless mitten variety of objects difficult to grasp without using the thumb (e.g., tennis ball, pencil or crayon, scissors, bottle cap)	*Hands Can* by Cheryl Willis Hudson *My Hands Can* by Jean Holzenthaler *My Two Hands, My Two Feet* by Rick Walton *My Father's Hands* by Joanne Ryder
Experience 6: The Sense of Touch	
"feely" bags or boxes variety of objects to explore by touch materials with different textures	*See, Hear, Touch, Taste, Smell* by Melvin Berger *Seven Blind Mice* by Ed Young *Touch the Poem* by Arnold Adoff *My Hands* by Aliki *I Can Tell by Touching* by Carolyn Otto
Experience 7: Fingerprints	
pencil paper transparent tape magnifying lenses pictures of fingerprints	*My Hands* by Aliki *Incredible Me!* by Kathi Appelt *I Like Myself!* by Karen Beaumont
Experience 8: Feet	
shallow pan and sand	*Hooray for Feet* by Susan Pearson *Hello Toes! Hello Feet!* by Ann Whitford Paul *My Two Hands, My Two Feet* by Rick Walton *My Feet* by Aliki *The Foot Book* by Dr. Seuss *Whose Feet* by Nina Hess *Beach Feet* by Lynn Reiser *The Soles of Your Feet* by Genichiro Yagyu
Experience 9: The Sense of Smell	
opaque containers with permeable covers "smelly" items such ripe banana, citrus peel, cloves, cinnamon stick, garlic, extracts, and pine needles pictures of the items (optional)	*See, Hear, Touch, Taste, Smell* by Melvin Berger *I Stink!* by Kate McMullan and Jim McMullan *What's That Awful Smell?* by Heather Tekavec

Materials	Books
Experience 10: The Sense of Taste	
assortment of foods with distinctive tastes such as pickles, pretzels, cheese, and fruits plates or napkins	*See, Hear, Taste, Touch, Smell* by Melvin Berger *Tasty Poems* by Jill Bennett
Experience 11: The Sense of Hearing	
opaque containers with covers objects that make distinctive sounds when shaken such as bells, rolled-up socks, blocks, and balls photos of the objects	*See, Hear, Taste, Touch, Smell* by Melvin Berger *All Sorts of Noises* by Hannah Reidy *The Indoor Noisy Book* by Margaret Wise Brown *The Very Noisy Night* by Diana Hendry *Vroomaloom Zoom* by John Coy *The Best Ears in the World* by Claire Llewellyn *Sing-Along Song* by Joann Early Macken *The Listening Walk* by Paul Showers
Experience 12: Skeleton	
skeleton model x-rays of hand and foot poster of the human skeleton	*The Busy Body Book* by Lizzie Rockwell *Dancing in My Bones* by Sylvia Andrews *The Skeletal System* by Helen Frost *Me and My Amazing Body* by Joan Sweeney
Experience 13: Muscles	
rubber resistance band	*The Busy Body Book* by Lizzie Rockwell *Dancing in My Bones* by Sylvia Andrews *Me and My Amazing Body* by Joan Sweeney *From Head to Toe* by Eric Carle *The Muscular System* by Helen Frost *Pretend You're a Cat* by Jean Marzollo

Materials	Books
Experience 14: Internal Organs	
organ apron	*The Busy Body Book* by Lizzie Rockwell *Dancing in My Bones* by Sylvia Andrews *Me and My Amazing Body* by Joan Sweeney
Experience 15: We Are Living Things	
familiar objects photos of living and nonliving things	*Is it Alive?* by Marcia Freeman *What's Alive?* by Kathleen Weidner Zoehfeld *The Busy Body Book* by Lizzie Rockwell
Experience 16: Growth	
photos of a person as a baby, child, adolescent, and adult a recent photo of each child and a photo of each as a baby photos of people in different stages of life (e.g., babies, children, adults)	*Guess the Baby* by Simon French and Donna Rawlins *Growing Like Me* by Anne Rockwell *My Baby and Me* by Lyn Reiser *Bigger* by Daniel Kirk *Tell Me What It's Like to Be Big* by Joyce Dunbar *Whose Shoes?* by Anna Grossnickle Hines *I Am Growing* by Mandy Suhr

Experience

Introducing the Body

Science Concept
Human bodies have many different parts, each with special functions.

Aim
Children will learn the names of important parts of the body.

Materials
poster with labels of the basic parts of the human body
photos of basic parts of the body

Books
Here Are My Hands by Bill Martin, Jr. and John Archambault
Eyes, Nose, Fingers, and Toes by Judy Hindley
Goodnight Feet by Constance Morgenstern
We're Different. We're the Same by Bobbi Jane Kates
Incredible Me! by Kathi Appelt
I Like Myself! by Karen Beaumont

Vocabulary
arm
body
ear
elbow
eye
face
finger
foot
hand
head
knee
mouth
neck
nose
shoulder
thumb
toe

Approach
Use a variety of approaches to help the children learn and review the names of important parts of the body. For example:

- Say "ear" and point to your own ear.
- Ask the children to touch their ears.
- Point to a part on your body and ask the children to name it.
- Review the names of parts of the body using a poster or photos of basic parts of the body
- Make a point to use the names of body parts in everyday conversation.
- Sing songs and perform finger plays that include the names of body parts.
- Read books that refer to parts of the body.

Extension

Once children have mastered the names of basic parts of the body, introduce more complex ones such as wrist, knuckle, and nostril.

Science Center

Place photos of parts of the body (e.g, eyes, noses, hands) in the Center for the children to compare and sort into groups.

Integrated Experiences

Literacy: Have children draw pictures of themselves. Help the children label their drawings. Note: It is fascinating to see how children's drawings of people change over time. Save the children's drawings in a portfolio. Share the drawings with parents and compare later drawings with this early one.

Math: During the experience, count body parts that come in singles and pairs.

Creative Arts 1 (Art): Trace the children's bodies on large sheets of paper and have them add details such as facial features, hair, and clothing.

Creative Arts 2 (Music and Movement): Perform songs and dances that name body parts such as "Head, Shoulders, Knees, and Toes," "If You're Happy and You Know It," and "Hokey Pokey."

Physical Health and Development (Gross Motor): Play the game "Simon Says."

Experience 2

The Five Senses

Science Concept
We learn by using our senses.

Aim
Children will explore an experience using all five senses.

Materials
popcorn popper
small cup or container
unpopped popcorn kernels
bowls or napkins

Books
See, Hear, Touch, Taste, Smell by Melvin Berger
My Five Senses by Aliki
My Five Senses by Margaret Miller
It All Makes Sense! by Sam Godwin
Sense Suspense by Bruce McMillan
The Five Senses by Jane Belk Moncure
Me and My Senses by Joan Sweeney

Vocabulary
ear
eye
feel
fingers
hear
kernel
listen
look
mouth
nose
popcorn
see
sense
smell
sound
taste
tongue
touch

Approach
! Be sure to check for food allergies and complete any required paperwork.

- Place some unpopped popcorn kernels in a cup. Give each child a few unpopped kernels to hold in their hands. Encourage the children to describe the kernels using their senses: *What color are they? Are they hard or soft? Do they smell?* During the discussion, introduce the terms for the senses (sight, touch, smell, taste, and sound) and connect each to the appropriate sense organ.
- Demonstrate how the kernels sound when shaken in the cup.
- Measure the kernels and have a child help you pour them into the popcorn popper. Explain that the first sound the children will hear is the whirring of the popper. Then they will hear a few pops and then many pops.
- As the popcorn pops, draw the children's attention to the smell.
- Distribute the popcorn among the children, but ask them not to eat any yet.
- Ask them to describe what it looks like: *What color is it now?*

Extension

To increase awareness of the senses and to foster vocabulary growth, ask the children to describe how foods look, smell, taste, feel and sound during snacks and meals.

Integrated Experiences

Literacy 1: During the experience, write down the words the children use to describe the unpopped kernels and popped popcorn on a large chart.

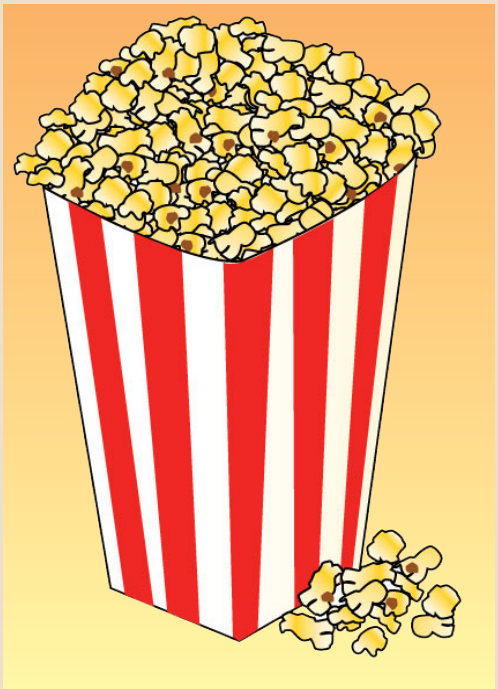
Literacy 2: While looking at popped and unpopped kernels, have the children draw what they look like. Help them label their drawings with descriptive words.

Literacy 3: Create a class display showing the steps in making popcorn. Add photos or the children's drawings.

What shape is it? Shake some of the popped popcorn in the container and ask*: Does it sound different than it did before?*

Review with the children how the popped popcorn looks, smells, feels, sounds, and tastes compared to the unpopped kernels. Ask: *What did the popcorn look like before? What does it look like now? Did it have a smell before? Does it have a smell now?*

Conclude by talking about what you learned about popping popcorn through the senses of sight, touch, smell, hearing, and, of course, taste!



Experience 3

The Sense of Sight

Science Concept
Human bodies have many different parts, each with special functions.

We learn by using our senses.

Aim
Children will use their sense of sight to gain information.

Materials
peephole books (see instructions on page 17)

Books
See, Hear, Touch, Taste, Smell by Melvin Berger
Take Another Look by Tana Hoban
Look! Look! Look! by Tana Hoban
Just Look by Tana Hoban
Look Again! by Tana Hoban
A Closer Look by Mary McCarthy
Mouse Views by Bruce McMillan
Seven Blind Mice by Ed Young
I See Myself by Vicki Cobb

Vocabulary
clue
eye
look
see
think

Approach
- Begin by reviewing the names of the five senses and the sense organs associated with each.
- Explain that today they are going to use their eyes to answer questions.
- Show the children a page in a peephole book. Encourage the children to describe what they see: *What color is it? Does it have stripes or polka dots?* Ask the children if it looks like anything they have seen before.
- Turn the page so the children can see the entire picture. Talk about what it is, other interesting features, where it might live, what it could be used for, and so forth.
- Continue to encourage the children to describe the clues revealed by the "peepholes" before turning the pages in the book.
- Remember that the point of this experience is to practice using clues to make informed guesses. Once children can readily recognize each picture, rotate new ones into the collection.

Extension 1

Make peephole pages using pictures of the children and staff. Talk about which features help identify each one as unique.

Extension 2

When outdoors, draw the children's attention to visual clues such as clouds, puddles, nests, half-eaten leaves, etc. Talk about what the clue likely means.

Science Center

Place the peephole books in the Center. Encourage the children to look carefully for clues about the item pictured and to name it based on those clues.

Integrated Experiences

Literacy: Play a game of *I Spy* in the classroom or on the playground using a variety of descriptive words.

Math: Have the children create or follow patterns using beads, natural materials, or other objects.

Social and Emotional: Show the children photographs of different emotional expressions. Help them label the expressions appropriately. Talk about how we can know how others are feeling by looking at their facial expressions.

How to Make A Peephole Book:

- *Collect photographs and illustrations with interesting details such as patterns, textures, and reflections. Nature magazines, calendars, and discarded books are good sources.*
- *Glue the pictures onto paper and laminate.*
- *Cut one or more openings into a sheet of paper to lay over the picture.*
- *Make sure the openings line up with the details you wish to highlight (e.g., zebra stripes, veins on a leaf). Laminate.*
- *Punch holes in all pages and organize in a binder.*
- *Rotate new pictures into the binder to allow for more practice.*

Experience 4

Introducing Magnifying Tools

Science Concept
We use tools to collect data and extend our senses.

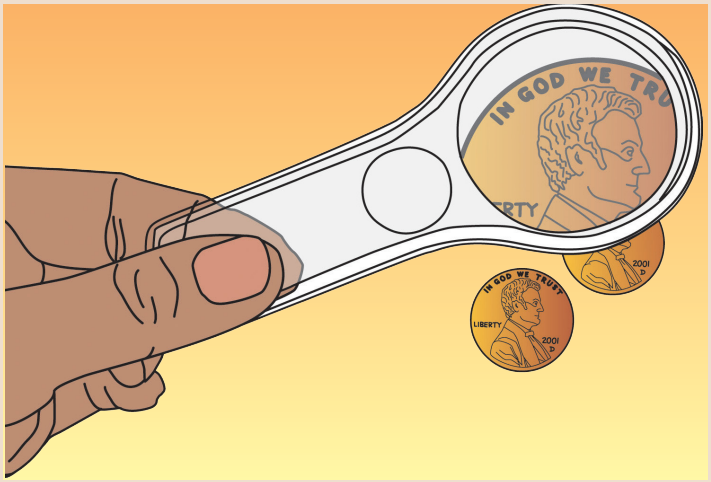
Aim
Children will learn to use a magnifying lens.

Materials
hand-held magnifying lenses
objects to magnify

Books
A Closer Look by Natalie Lunis
What Is a Scientist? by Barbara Lehn
Bug Safari by Bob Barner

Vocabulary
big/bigger
little
magnifying lens

Approach
- Begin this small group experience by reviewing what the children have learned about the sense of sight. Discuss situations when it is difficult to see, such as when things are very small. Explain that there are tools that we can use to help us see.
- Introduce the magnifying lens and demonstrate how to use the lens to explore a small item (pennies, stamps, or insects work well).
- Distribute lenses to children and help them use the lenses to examine items. Draw their attention to how the magnifying lens makes things look bigger.



Extension

Explore binoculars, telescopes, or other kinds of magnifying tools.

Science Center

Place the magnifying lenses in the Center along with an assortment of objects for the children to explore magnification further.

Integrated Experiences

Literacy: Have the children draw a picture of an object as it appears to the naked eye and another as it looks magnified. Help them label each drawing.

Physical Health and Development (Health): Bring in pairs of eyeglasses. Talk about how glasses are another tool that can help people see better.

Experience 5

Hands

Science Concept
Human bodies have many different parts, each with special functions.

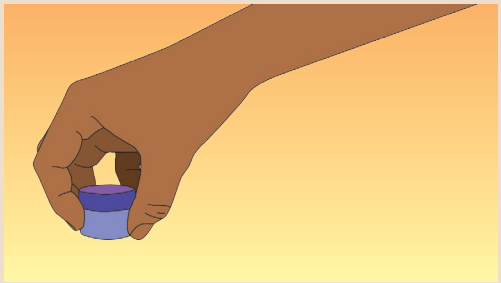
Aim
Children will explore the importance of the thumb.

Materials
photos of cat's paw and child's hand
sock or thumbless mitten
variety of objects difficult to grasp without using the thumb (e.g., tennis ball, pencil or crayon, scissors, bottle cap)

Books
Hands Can by Cheryl Willis Hudson
My Hands Can by Jean Holzenthaler
My Two Hands, My Two Feet by Rick Walton
My Father's Hands by Joanne Ryder

Vocabulary
finger
fist
hand
paw
thumb

Approach
- Begin this small group activity by reviewing the names of different parts of the body. Focus the children's attention on their hands. Help them identify the fingers and thumbs.
- Have the children move their hands in different ways: wiggle fingers, open hand, close fist, and touch each finger to the thumb.
- Show the children the photo of the cat's paw and the human hand. Talk with the children about the ways the paw is different from the hand. Explain that the paw does not have a thumb, but the hand does. Ask the children what cats do with their paws, and what we can do with our hands that cats cannot: *Can a cat hold a pencil? Can a cat pick up a penny?*
- Ask for a volunteer to put on the thumbless mitten. Explain that it will make their hand like that of a cat. Have the child try to pick up or use the items you have gathered.
- Have the children take turns trying the different tasks wearing the sock and not wearing the sock. Talk about how hands are useful and how each part helps us do special jobs.



Science Center

Set up a variety of tasks in the Center for the children to try when wearing and not wearing the sock/ thumbless mitten on their hand.

Integrated Experiences

Literacy 1: Help the children trace their hands and label the parts.

Literacy 2: Teach the children several signs from American Sign Language.

Literacy 3: Recite “Pat-a-cake, Pat-a-cake.”

Math: Have the children use their hands as measuring units to compare the size of various objects around the classroom.

Creative Arts 1 (Art): Make hand casts using Plaster of Paris or hand prints with washable paint.

Creative Arts 2 (Art): Make pinch pots by first rolling dough into a ball. Show the children how to use their thumbs to make a dent in the dough and use gentle pinching motions to shape the dough into a bowl.

Creative Arts 3 (Music and Movement): Perform the song “Where Is Thumbkin?”

Experience 6

The Sense of Touch

Science Concept

Human bodies have many different parts, each with special functions.

We learn by using our senses.

Aim

Children will use the sense of touch to gather information.

Materials

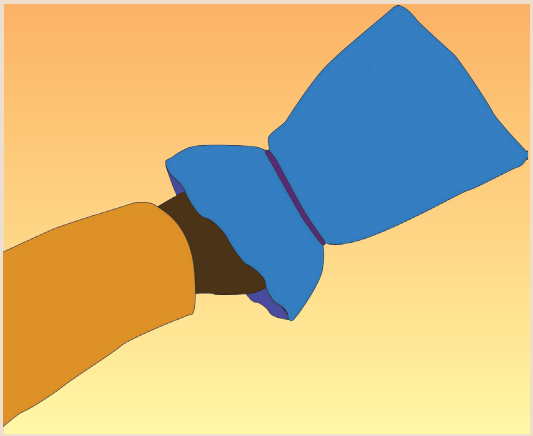
"feely" bags or boxes
variety of objects to explore by touch
materials with different textures

Books

See, Hear, Touch, Taste, Smell by Melvin Berger
Seven Blind Mice by Ed Young
Touch the Poem by Arnold Adoff
My Hands by Aliki
I Can Tell by Touching by Carolyn Otto

Vocabulary

feel
senses
touch



Approach

In advance, gather a variety of familiar objects that are small enough to fit into the feely bags. It is best if the items have distinctive features. Place the objects in the bags out of view of the children.

Show the children the feely bags. Explain that you want the children to find out how things feel using the sense of touch. Have the children explore the bags one at a time.

Encourage the children to describe how the objects feel before they say what it is: *How does it feel? Is it smooth or is it rough? What shape is it? Does it have any parts that move?*

Hint!

Young children may be unable to resist telling you what the item is. If so, ask them to describe the item after they identify it (e.g., Does the crayon feel skinny or fat?).

Extension

During the experience, discuss what children can learn about objects by touch alone (e.g., texture) and what they cannot (e.g., color, taste, smell).

Science Center

Place a collection of items in the Center for the children to sort by texture.

Integrated Experiences

Literacy 1: Ask the children to draw one or more things they like to touch, such as a pet or their favorite blanket. Help the children label their drawings.

Literacy 2: Cut the letters “A,” “a,” “B,” and “b” out of sandpaper. Use a glue stick to attach them to the table temporarily. Cover the table with brown butcher paper and secure it with tape to the table. Have the children feel the covered tabletop. Encourage them to try to identify the letters underneath by touch. Then have them rub over the sandpaper letters with crayons (that have wrappers removed). Have the children identify the letters again.

Math 1: Use the procedure described above with shapes and numbers.

Math 2: Prepare black and white line drawings of simple bead patterns for children to duplicate (round bead, round bead, square bead, square bead). Put round and square beads in the feely bags and have children produce the bead patterns by feeling the shape to select beads.

Math 3: Cut circles of different sizes out of stiff materials with different textures. Place them in the feely bags and have children sort the circles by texture and/or size.

Creative Arts (Art): Have the children explore the sense of touch by mixing ½ teaspoon of salt or sand into fingerpaints or mix bird seed into play-dough.

Experience 7

Fingerprints

Science Concept
Human bodies have many different parts, each with special functions.

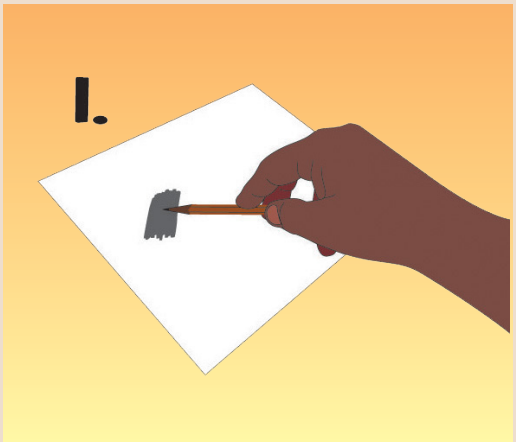
Aim
Children will make a fingerprint.

Materials
pencil
paper
transparent tape
magnifying lenses
pictures of fingerprints

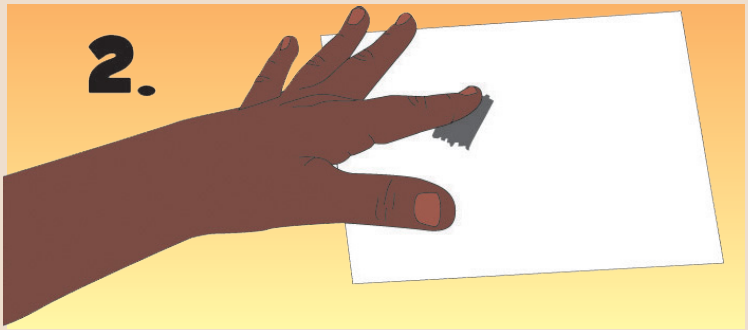
Books
My Hands by Aliki
Incredible Me! by Kathi Appelt
I Like Myself! by Karen Beaumont

Vocabulary
alike
different
fingerprint
hand
pattern
thumb
unique

Approach
In small groups, begin by reviewing what the children have already learned about hands. Help the children distinguish between fingers and thumbs.
Using pictures of fingerprints, introduce the concept of fingerprints. Draw the children's attention to how each of the fingerprints are different.
To make fingerprints, rub the lead of a pencil back and forth several times on a piece of paper.



Then, rub one fingertip across the pencil marking.

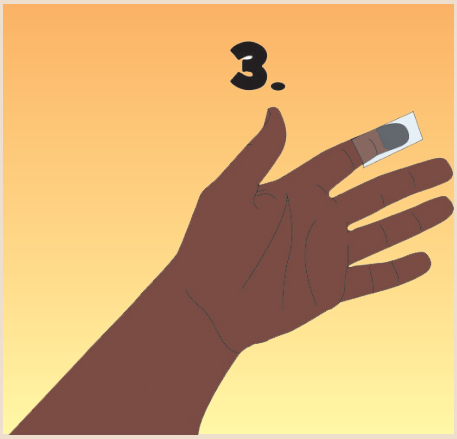


Integrated Experiences

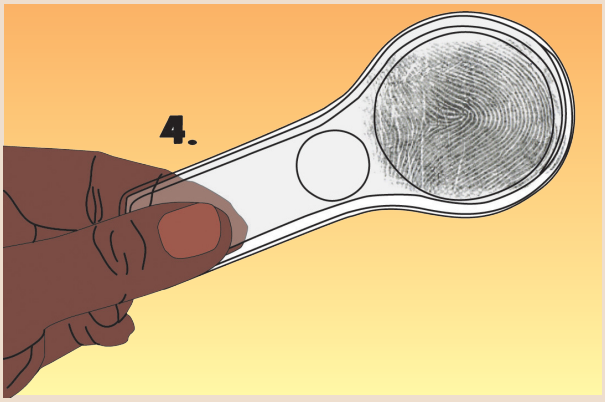
Literacy: Talk with the children about other things that make each one of them unique and special. Help the children write their response to “I am unique because _____.” Have them add a drawing.

Creative Arts (Art): Have the children create finger or thumbprint art using a pad of washable ink (or layers of damp paper towels with dry or wet tempera paint). For ideas, see Ed Emberley’s *Great Thumbprint Drawing Book* or *Complete Funprint Drawing Book*.

- Press a piece of transparent tape against the fingertip.



- Carefully place the tape on a piece of white paper. Examine the fingerprint with a magnifying lens.



- Have the children make their own prints on paper labeled with their names.
- Discuss the fact that everyone has fingerprints and that the fingerprints come in certain patterns, but that everyone’s fingerprints are unique.

Experience 8

Feet

Science Concept
Human bodies have many different parts, each with special functions.

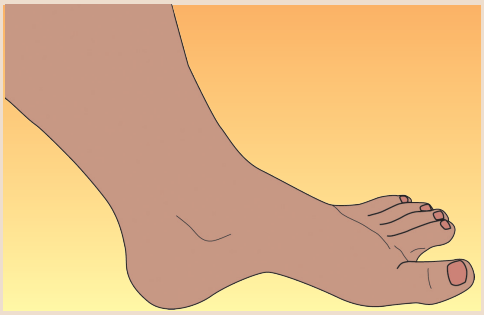
Aim
Children will explore their feet and what feet can do.

Materials
shallow pan and sand

Books
Hooray for Feet
by Susan Pearson
Hello Toes! Hello Feet!
by Ann Whitford Paul
My Two Hands, My Two Feet
by Rick Walton
My Feet by Aliki
The Foot Book by Dr. Seuss
Whose Feet by Nina Hess
Beach Feet by Lynn Reiser
The Soles of Your Feet
by Genichiro Yagyu

Vocabulary
arch
balance
foot
heel
sale
toenail
toes

Approach
- Have children remove all footwear.
- Begin by reviewing the names of different body parts. Draw the children's attention to their feet. Ask: *Has anyone used their feet today? What did you do with your feet?*
- Introduce the words "heel," "toe," "toenail," "sole," and "arch" as you locate each part on the foot.
- Have the children perform different exercises and ask which parts of their feet they are using to do each.



Try these!
* *walk a short distance*
* *run in place*
* *stand up on your toes*
* *jump up and down*
* *hop on one foot*
* *point and flex feet*
* *balance on one foot*

Extension 1

Paint the bottom of children's feet with tempera paint and have the children make footprints on paper. Identify the different parts of the feet. Compare the ways the footprints are alike and different.

Extension 2

Make a path using a variety of surfaces such as carpet squares, pieces of fabric with different textures, and natural materials such as pine needles. Have the children remove their shoes and explore how the path feels.

Science Center

Pour 1-2 inches of sand into a large, shallow container. Have the children explore making footprints in the sand.

Integrated Experiences

Math 1: Place a number line on the floor and have the children take turns hopping to numbers from 0 to 10.

Math 2: Gather pairs of socks or shoes ranging in size from infant to large adult. Mix the socks or shoes together and have the children match the pairs, or select one item from each pair and have the children place them in order by size.

Math 3: Have the children measure objects and distances in the classroom and outdoors using their feet as informal measuring tools.

Creative Arts (Dramatic Play): Gather a variety of shoes and other footwear along with shoeboxes, a measuring tool, and other props to encourage a shoe store theme.

Physical Health and Development 1 (Gross Motor): Play a game of "Simon Says" with directions focusing on motions involving the feet (e.g. hop, skip, jump). Incorporate counting into the directions (e.g. "hop two times").

Physical Health and Development 2 (Gross Motor): Put a line of masking tape on the floor that children can walk along "tightrope style" to practice balancing.

Physical Health and Development 3 (Fine Motor): Gather a variety of hard and soft items together and have the children try to pick the items up with their feet and drop them into a container.

Experience 9

The Sense of Smell

Science Concepts

Human bodies have many different parts, each with special functions.

We learn by using our senses.

Aim

Children will use the sense of smell to gather information.

Materials

opaque containers with permeable covers
"smelly" items such as ripe banana, citrus peel, cloves, cinnamon stick, garlic, extracts, and pine needles
pictures of the items (optional)

Books

See, Hear, Touch, Taste, Smell by Melvin Berger
I Stink! by Kate McMullan and Jim McMullan
What's That Awful Smell? by Heather Tekavec

Vocabulary

nose
nostril
senses
smell
sniff

Approach

In advance, prepare scent canisters by placing "smelly" items in opaque containers with permeable covers. ! <u>If you use food items, be sure to check for food allergies and complete any required paperwork.</u>

Begin by reviewing the names of the five senses and the five sense organs.

Select a container holding an item with a familiar smell such as ripe banana. Ask: *What does it smell like? Can you think of something that smells like that?* If pictures are available, have the children select the picture that matches the smell.

Pass the containers among the children. Encourage the children to try to identify the smell, tell whether they like it or not, and describe the smell using words such as "flowery" or "stinky."

Extension

Make two playdough balls of the same color. Add different extracts, such as peppermint and lemon, to each of the balls. Show the children each ball and ask them if they think the balls will smell the same. Have the children smell the balls, and discuss how some materials that look the same may not smell the same.

Science Center

Place scent canisters and matching photographs or objects in the Center. Encourage the children to match the scents to the corresponding pictures/objects.

Integrated Experiences

Math: Graph the number of children who report they like or do not like the smells in each of the canisters.

Physical Health and Development (Safety): Talk about how your nose can help save your life by detecting smells that are dangerous, such as smoke.

Experience 10

The Sense of Taste

Science Concepts

Human bodies have many different parts, each with special functions.

We learn by using our senses.

Aim

Children will use the sense of taste to gather information.

Materials

assortment of foods with distinctive tastes such as pickles, pretzels, cheese, and fruits

plates or napkins

Books

See, Hear, Taste, Touch, Smell by Melvin Berger

Tasty Poems by Jill Bennett

Vocabulary

salty
sour
sweet
taste
taste buds
tongue

Approach

! In advance, gather several distinctive-tasting foods. Be sure to check for food allergies and complete any required paperwork.

Introduce the foods to the children one by one. As the children try each food, label them and use words to help the children describe how the foods taste: *Do you think this pickle tastes sour or sweet?*

Encourage the children to report whether they like the foods or not.

Hint!

Some children are afraid to try new foods. It is best not to force them. Often, children will overcome their fears by observing their peers.

Extension

Find foods that fit well into the categories of sweet, salty, sour, and bitter. Allow the children to taste the foods and help them to distinguish between the different tastes.

Integrated Experiences

Literacy 1: Have the children draw pictures of the foods in the taste test to include in their journals. Allow the children to look at the items as they draw them. Help the children label their drawings.

Literacy 2: Have the children make a food collage using photos from magazines.

Math 1: Graph the number of children who like or dislike a certain food.

Math 2: Measure simple ingredients for a trail mix and eat it during snack time.

Creative Arts (Dramatic Play): Place food replicas and related props in the dramatic play area. Encourage the children to pretend they are preparing dinner at home or in a restaurant.

Physical Health and Development (Safety): Show the children different poison symbols (e.g. Mr. Yuk, skull and crossbones). Discuss how anything with these symbols should never be tasted.

Experience II

The Sense of Hearing

Science Concepts

Human bodies have many different parts, each with special functions.

We learn by using our senses.

Aim

Children will use the sense of hearing to gather information.

Materials

opaque containers with covers
objects that make distinctive sounds when shaken such as bells, rolled-up socks, blocks, and balls
photos of the objects

Books

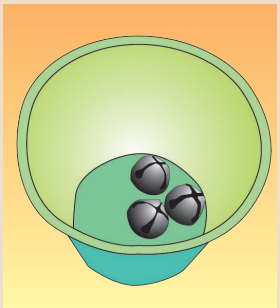
See, Hear, Taste, Touch, Smell by Melvin Berger
All Sorts of Noises by Hannah Reidy
The Indoor Noisy Book by Margaret Wise Brown
The Very Noisy Night by Diana Hendry
Vroomaloom Zoom by John Coy
The Best Ears in the World by Claire Llewellyn
Sing-Along Song by Joann Early Macken
The Listening Walk by Paul Showers

Vocabulary

ear
hear
listen
loud
noise
soft
sound

Approach

- In advance and out of view of the children, place the objects in the containers.
- Show the children one of the closed containers and the photos of the objects. Explain (for example): *There is something in this container. It is either a ball, a bell, a block, or a sock. Is there a way we can find out what it is without looking inside?* If no one suggests it, ask whether we could learn what is in the container by shaking it and listening to the sound.
- Before you shake the container, ask the children to think about what the different objects would sound like: *If a bell is inside, what would it sound like? Would a ball sound different? How?*
- Shake the container and ask the children which item they think is inside. Look inside and explain why the item made the sound that it did: *See, the sock is soft and so it makes a soft sound!*
- Repeat with the other containers. Talk about how we can learn about the world through our ears and the sense of hearing.



Extension

Have several children stand behind a door or large sheet. Ask one child to speak or sing a brief phrase and have the rest of the class try to guess which child produced the sound.

Science Center

Provide duplicate sets of canisters and encourage the children to match them by sound. Encourage the children to describe the sound they hear and to explain how they made a correct match. Rotate new objects into the containers to maintain interest.

Integrated Experiences

Creative Arts 1 (Music and Movement): Choose a tape or CD of familiar songs. Play several seconds of the songs and see if the children can “name that tune.”

Creative Arts 2 (Music and Movement): Distribute musical instruments among the children for them to play together like a band. Instruct them to play at different volumes, playing loud then soft, loud then louder, and soft then softer.

Physical Health and Development 1 (Safety): Discuss how certain sounds indicate danger. For example, a fire alarm means leave the building, while fire truck, ambulance, and police sirens mean get out of the way.

Physical Health and Development 2 (Safety): Have children look at their own ears in a mirror or at a classmate’s ears. Discuss the safety concerns with putting things in your ears.

Experience 12

Skeleton

Science Concepts

Human bodies have many different parts, each with special functions.

Humans are living things that need food, air, shelter, and water to survive and can move, grow, and reproduce.

Aim

Children will explore the human skeleton.

Materials

skeleton model
x-rays of hand and foot
poster of the human skeleton

Books

The Busy Body Book by Lizzie Rockwell
Dancing in My Bones by Sylvia Andrews
The Skeletal System by Helen Frost
Me and My Amazing Body by Joan Sweeney

Vocabulary

bones
inside
joints
outside
skeleton
skull
x-ray

Approach

- Begin by reviewing the names of the various external body parts. Explain that these are outside body parts but that there are also important parts inside the body that the children cannot see.
- To illustrate, ask the children to gently push against their bodies and feel the hard parts under the skin. Explain that these hard parts are called bones. Now have the children examine their hands by feeling the bones in the fingers and palm.
- Show them the x-rays, and explain that these are pictures of the bones in someone's hand and foot taken at a doctor's office. Have them look carefully at how the bones connect.
- Next, show the children the skeleton model and the skeleton poster. Begin at the top of the skeleton and introduce the term "skull." Ask the children to locate their own skulls, followed by other bones in their bodies that correspond to specific bones of the skeleton.
- Then focus the children's attention on the joints. Have the children bend their elbows and knees. Using the skeleton model, show how the joints move.

Extension

Compare the skeleton of the human body with photos or models of other animal skeletons. Talk about the parts that are similar (e.g., ribs) and different (e.g., hands).

Science Center

Place the skeleton and x-rays in the Center for the children to explore under supervision. Focus the children's attention on the parts that bend and help them review the names of the body parts.

Integrated Experiences

Math: Compare and contrast the skeleton model with the children's bodies. Count how many arms, legs, etc. that each have.

Social and Emotional 1: Show the children inventions such as crutches, braces, wheelchairs, and walkers that help people with different skeletal problems. Substitute photographs if the objects are not available.

Social and Emotional 2: Create a classroom display of the various medical professionals that help keep bodies healthy (e.g., nurse, doctor, dentist, nutritionist, exercise specialist).

Creative Arts (Dramatic Play): Place child-size crutches, slings, and related props in the dramatic play area to encourage play about going to the hospital or having different disabilities.

Physical Health and Development 1 (Health): Talk about the importance of calcium for bones and teeth. Discuss which foods are good sources of calcium.

Physical Health and Development 2 (Health): Show the children various devices people use to protect the bones while at work and at play. Examples include bicycle and football helmets, elbow pads, kneepads, and shin guards.

Experience 13

Muscles

Science Concepts

Human bodies have many different parts, each with special functions.

Humans are living things that need food, air, shelter, and water to survive and can move, grow, and reproduce.

Aim

Children will learn about their muscles.

Materials

rubber resistance band

Books

The Busy Body Book by Lizzie Rockwell
Dancing in My Bones by Sylvia Andrews
Me and My Amazing Body by Joan Sweeney
From Head to Toe by Eric Carle
The Muscular System by Helen Frost
Pretend You're a Cat by Jean Marzollo

Vocabulary

heavy
light
muscles
strong

Approach

- Begin by reviewing the names of the external and internal body parts that have already been discussed. Explain that there is another very important part of the body that you have not talked about yet—the muscles. Ask the children what they know about muscles.
- To demonstrate how it feels when muscles are working, help a child wrap one end of a resistance band around each fist and pull. Draw the other children's attention to the muscles that the volunteer is using.
- Have the children take turns exploring the resistance bands. Encourage the children to observe how their muscles change when relaxed and when pulling the bands.
- Explain that we have many muscles. Have the children stretch their legs out in front of them and pull their toes toward their knees and feel how their calves harden. Ask the children to smile and tell them that they even use muscles when they smile!

Extension

Have the children lie on the floor or sit on chairs and try to lift their legs slowly and hold them in the air. Ask the children to describe what they feel and which body parts seem to be “working” the hardest.

Science Center

Put the resistance bands in the Center for further supervised exploration of muscles.

Integrated Experiences

Literacy: Ask the children to complete the sentence “I am as strong as a(n) _____” as a journal entry, or create a class display of their responses.

Math: Fill sets of identical containers (e.g., one-gallon milk jugs, shoe boxes) with different materials like water, sand, or styrofoam. Have the children place the containers in order from lightest to heaviest.

Physical Health and Development (Gross Motor): Set up an obstacle course on the playground. Have the children focus on the muscles they use as they climb a ladder, jump over small barriers, etc.

Social and Emotional: Talk about different occupations that require considerable strength. Create a class display.

Experience 14

Internal Organs

Science Concepts

Human bodies have many different parts, each with special functions.

Humans are living things that need food, air, shelter, and water to survive and can move, grow, and reproduce.

Aim

Children will identify some internal organs and explain what they do.

Materials

organ apron

Books

The Busy Body Book
by Lizzie Rockwell
Dancing in My Bones
by Sylvia Andrews
Me and My Amazing Body
by Joan Sweeney

Vocabulary

brain
hard
heart
lungs
organs
soft

Approach

- Begin by reviewing what the children have already learned about bones and muscles.
- Ask the children to press lightly against their bodies to identify parts that are hard or soft.
- Explain that they have soft parts inside their bodies that they cannot feel from the outside, and that some of these parts are called organs.
- Ask a volunteer to put on the organ apron. Focus the children's attention on the lungs, heart, and stomach. Encourage the other children to point to where these organs are located on their bodies.

Science Center

Place the organ apron in the Center. Guide children's exploration of the apron by asking them to name the various organs and describe what the organs do.

Integrated Experiences

Creative Play (Dramatic Play): Place food replicas, empty food containers, shopping carts, dishes, and a cash register in the dramatic play area. Encourage the children to pretend they are shopping for healthy food to prepare dinner at home or in a restaurant.

Physical Health and Development 1 (Gross Motor): Go outdoors and run relay races, stay indoors and dance, or play a game of "Simon Says" that is strenuous enough to raise the children's heart rate. Focus the children's attention on how it feels when the heart is beating quickly.

Physical Health and Development 2 (Health): Talk to the children about the importance of a good diet and exercise for keeping the heart healthy.

- Discuss with the children how each of these organs has a special job: the lungs help us breathe air; the stomach is where our food goes after we eat it; and the heart helps pump blood through our bodies.
- Continue the discussion and explain that because our bodies need food and oxygen, it is important to eat healthy food and breathe clean air.

Try these!

** Hold a tissue in front of your nose and watch how it moves when you breathe.*
** Take deep breaths and feel your lungs working.*
** Feel your stomach after you eat a snack. Listen for sounds of digestion.*
** Jump up and down for 30 seconds and feel your heart pumping quickly.*

Experience 15

We Are Living Things

Science Concept
Humans are living things that need food, air, shelter, and water to survive and can move, grow, and reproduce.

Aim
Children will explore the concepts of living and nonliving.

Materials
familiar objects
photos of living and nonliving things

Books
Is it Alive? by Marcia Freeman
What's Alive? by Kathleen Weidner Zoehfeld
The Busy Body Book by Lizzie Rockwell

Vocabulary
alive
living
nonliving

Approach
- Review with the children what they have learned about the body, including what they now know about their internal organs.
- Explain that people are living things that need certain conditions to grow and survive. Ask the children for their ideas about what people need. If you have plants or animals in your classroom, discuss the things they need to stay alive. Explain that living things need food, water, and air to survive.
- Select an object such as a chair or toy. Ask: *Will it ever grow bigger? Does it need food or water?*
- Review the concepts of living and nonliving using photographs. Highlight important requirements for living things with each photo. Encourage the children to explain why they think the item in each photo is living or noniving.

Extension

Have the children find examples both inside and outside the classroom of things that are living and not living. Discuss why they think the things are living or not living.

Science Center

Place some of the photos of living and nonliving things in the Center for the children to sort into groups. Add more photos as the children's understanding grows.

Integrated Experiences

Literacy 1: Create a class chart of living and nonliving things. Use examples the children suggest and either write the words on the chart or find pictures in magazines.

Literacy 2: Have the children draw a picture of something that is living. As they tell you about it, label their picture.

Social and Emotional: Discuss other things that are living, such as pets and plants, and the importance of taking good care of them.

Experience 16

Growth

Science Concept
Humans are living things that need food, air, shelter, and water to survive and can move, grow, and reproduce.

Aim
Children will explore the concept of human growth.

Materials
photos of a person as a baby, child, adolescent, and adult
a recent photo of each child and a photo of each as a baby
photos of people in different stages of life (e.g., babies, children, adults)

Books
Guess the Baby by Simon French and Donna Rawlins
Growing Like Me by Anne Rockwell
My Baby and Me by Lyn Reiser
Bigger by Daniel Kirk
Tell Me What It's Like to Be Big by Joyce Dunbar
Whose Shoes? by Anna Grossnickle Hines
I Am Growing by Mandy Suhr

Vocabulary
adult
baby
born
child
grow
infant
oldest
youngest

Approach
- Review what has been learned about living things and their needs. Explain that as the needs of living things are met, they grow and change. Relate this growth to how the children have grown and changed so far in their lives.
- Choose a set of photos depicting the life stages of one person. Show the children the photo of the infant and discuss some of the characteristics of an infant. Explain that this infant is going to grow and change into a child. Show the children the photo of a child and discuss the similarities between the child and themselves. Continue with the remaining cards, emphasizing the different stages.
- One by one, show the recent photos of each child and their baby photos. Draw the children's attention to the ways the individual has changed and the ways she is the same.

Extension

Encourage the children to bring in photos of other family members at different life stages.

Science Center

Place photos of people in different stages of life in the Center. Have the children sort the photos into groups (e.g., babies, children, adults).

Integrated Experiences

Literacy: Create a class display of the life stages using photographs brought in by the teachers and children.

Math: Cut a string the same length as an average infant. Cut another string the same height as a child in the class. Compare the two sizes and discuss how humans get taller as they grow older.

Social and Emotional: Discuss how reactions and behavior changes as one grows older. This could include how infants cry and fuss when they want something, while children use words.

Creative Arts 1 (Music and Movement): Sing “Are You Growing?”

Creative Arts 2 (Dramatic Play): Place baby dolls and related toys in the dramatic play area. As the children play, encourage them to care for the infants properly. Help them to distinguish between roles played by infants, children, and adults.

My Body/My Senses

Welcome to the My Body/My Senses *MESS*® Take-Home Kit. This page suggests ways to further explore what your child has been learning at school.

In this Kit you will find:

- *Mouse Views* by Bruce McMillan
This book shows familiar classroom objects from the point of view of a small mouse.
- A magnifying lens

This month, your child is learning:

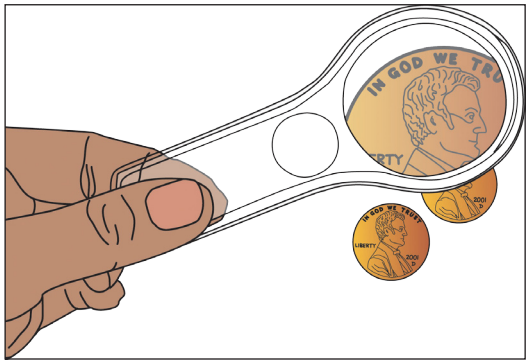
- about seeing, hearing, touching, tasting, and smelling.
- how to use a magnifying lens.

How to use this book:

- As you read the book, discuss the clues, guess what the object is, and turn the page to see if you are correct! Ask questions such as: *What do you see? What could it be? Why do you think that?*
- To help your child learn about reading books, point to the words as you read them and let your child help you turn the pages.
- Read the book again to see if you and your child can remember the different objects.

How to use the object:

- Show your child how to use the magnifying lens to make things look bigger. You might start with the page numbers in the book. Then explore things such as skin, coins, or insects.



To further support your child's learning:

- Play "I Spy." Pick something in the room and give hints like *I see something red* or *I see something shiny* and encourage your child to find it.
- Use sense words when talking with your child. Ask: *How does that taste? What do you hear?*

My Body/My Senses

Recommended Books

Adoff, Arnold. *Touch the Poem.* New York: Blue Sky Press, 2000. Most readers will not have thought how various objects and movements feel, but these poems will make even young children more conscious of touching things—like peach fuzz or hair floating in the water. The full-page photographs provide visual support.

Aliki. *My Five Senses/Mis cinco sentido*s. New York: HarperTrophy, 1989. The five senses are introduced through simple text and illustrations of a little boy. Multiple examples of how he uses his senses will stimulate children to talk about their own sensory experiences.

Aliki. *My Feet.* New York: HarperCollins, 1990. Other than the very early intrigue over playing with one's toes, most people—young and old—tend to take their feet for granted. This book details some basic parts and highlights the usefulness of feet. Drawings encourage observation and text inspires imitation.

Aliki. *My Hands*. New York: HarperCollins, 1990. Everyday we use our hands again and again—drawing, tickling, making snowballs, clapping, etc. Basic anatomy is little changed from an earlier edition, but drawings are diverse and colorful, supporting age-appropriate text. Topics like disabilities and left-handedness and detailed illustrations should provide good observation and conversation opportunities. NSTA Outstanding Trade Book

Andrews, Sylvia. *Dancing In My Bones.* New York: Harper Festival, 2001. More than bones move in this book! Multiple body parts get attention in rhymes that invite singing as well as movement. The final verse on "dancing in my heart" may need some discussion.

Appelt, Kathi. *Incredible Me!* New York: HarperCollins, 2003. An exuberant and self-confident little girl celebrates her uniqueness, including basic body parts. Colorful illustrations reveal her enthusiasm, too.

Barner, Bob. *Bug Safari.* New York: Holiday House, 2006. A little boy, with magnifying glass in hand, has an adventurous trip following ants on their way to a backyard picnic. Information is accurate; bold, enlarged pictures add to the mystery. Additional information about the animals encountered is included.

Beaumont, Karen. *I Like Myself!* New York: Harcourt, 2004. While the science is sometimes subtle, the simple, enthusiastic, rhyming text and amusing cartoons inspire discussion about self-esteem and how others view you.

Bennett, Jill, ed. *Tasty Poems.* Oxford: Oxford University Press, 1992. Fun cartoon illustrations accompany short poems about some common foods—but usually with a different perspective. "I Like Cabbage," "Chocolate Milk," and "Taste of Purple," especially, lend themselves to some classroom "testing" and enthusiastic conversation.

My Body/My Senses

Berger, Melvin. *See, Hear, Touch, Taste, Smell*. Northborough, MA: Newbridge,1994. Beautiful large photographs introduce the five senses and what each does. With one sentence per page, the text introduces some words connected to each sense (e.g., smell, nose, odor). The idea of using multiple senses at once is also presented. Ideas to think about are added.

Brown, Margaret Wise. *The Indoor Noisy Book*. New York: HarperCollins, 1994. Muffin the dog has a cold and spends the day indoors listening to and questioning the sounds he hears inside and out. Other titles among the author's numerous "noisy" books encourage listening in a particular environment. They include *The Summer Noisy Book*, *Winter Noisy Book*, *Seashore Noisy Book*, and just plain *Noisy Book*.

Carle, Eric. *From Head to Toe*. New York: HarperCollins, 1997. Each of numerous animals moves one body part (a giraffe bends its neck, monkey waves its arms, etc.) and then challenges a child to repeat the action. The large, boldly colored illustrations and active vocabulary invite enthusiastic participation.

Cobb, Vicki. *I See Myself*. New York: HarperCollins, 2002. This is an interactive book about the role of light in the sense of sight. Children are encouraged to try some of the suggested activities so that they experience for themselves the principles involved in light. Consequently, the book is best read only a few pages at a time. A mirror and a flashlight are the most common tools required.

Coy, John. *Vroomaloom Zoom*. New York: Crown Publishers, 2000. An indulgent father takes his young daughter for a pre-bedtime ride, all with the intention of helping her fall asleep. However, the noisy situations they encounter prevent that but provide wonderful sounds for children to listen to and probably imitate.

Dunbar, Joyce. *Tell Me What It's Like to Be Big.* San Diego, CA: Harcourt, 2001. Little rabbit Willa is aware of the things she cannot do because she is little. Brother Willoughby provides assistance and is also the source of information about the improvement that growth can provide—not all of which sound totally positive to Willa. Their discussion (albeit from talking rabbits) will generate conversation about pre-school children's potential. Large illustrations are detailed enough for observation practice and additional conversation.

Freeman, Marcia. *Is It Alive?* Northborough, MA: Newbridge, 2003. How can you tell what is alive (and therefore what is not alive)? Brief text with numerous questions and large photographs in big-book format introduce growth, reproduction, need for food and water, and movement as distinguishing features between living and nonliving things. A glossary, index, and more things to think about are added.

My Body/My Senses

French, Simon. *Guess the Baby.* New York: Clarion Books, 2002. His baby brother's visit to school leads Sam's class to share their own baby pictures and appreciate the changes that come with growth. The children eventually speculate about their teacher as a baby. The illustrations—especially those of the photographs—encourage close observation.

Frost, Helen. *The Skeletal System*/*Muscular System*/*Nervous System*/*Circulatory System*/ *Respiratory System*. Mankato, MN: Capstone Press, 2001. The skeleton and muscle books in this series are filled with age-appropriate information, albeit in small-book format. Their photographs, diagrams, and text contain useful examples. The little volumes on nerves, blood, and lungs, however, are generally too advanced for pre-school children. Brief glossaries, bibliographies, and indices in each book may be useful for some classes.

Godwin, Sam. *It All Makes Sense!* North Mankato, MN: Smart Apple Media, 2002. "Our five senses tell us that we are alive!" Cartoon mother and child birds introduce readers to sensory experiences. Each sense is described along familiar dimensions (seeing—near/far, hearing—loud/soft, smelling—pleasant/ horrible, tasting—bitter/sour/sweet/salty, touching—hard/soft and cold/warm). Conversation bubbles from the animals along the route add interest and additional information.

Hendry, Diana. *The Very Noisy Night*. New York: Dutton Children's Books, 1999. Sounds during the night keep Little Mouse's imagination working and Big Mouse awake explaining the natural sounds. Children will enjoy both predicting the sound sources in the text and exploring the colorful pictures of the mice's busy bedroom.

Hess, Nina. *Whose Feet?* New York: Random House, 2004. The usefulness and variety of feet are explored including mole, cheetah, rabbit, bat, duck, orangutan, and little human feet. Intended as an early reader, text is appropriately limited. Illustrations are softly colored and informative.

Hindley, Judy. *Eyes, Nose, Fingers, and Toes*. Cambridge, MA: Candlewick Press, 2002. Rhythmic text supplements colorful, appealing drawings that show children using various body parts. The enthusiastic expressions on the toddlers' faces is infectious. Simple backgrounds in black crayon add great perspective without interfering with the active focus.

Hines, Anna Grossnickle. *Whose Shoes?* New York: Harcourt, 2001. Both a descriptive text and cartoon-like illustrations give clues so that readers can answer the title question for the mouse narrator. Answers can be found inside five flaps. While the visual and textual clues make good observation/listening practice, equally important are the different growth patterns represented by mother and father mice, sibling mice, and a baby mouse and their respective shoes.

My Body/My Senses

Hoban, Tana. *Look Again!* New York: MacMillan, 1971.
—*Take Another Look.* New York: Greenwillow Books, 1981.
—*Look! Look! Look!* New York: Greenwillow Books, 1988.
—*Just Look.* New York: Greenwillow Books, 1996.
Using black and white photographs in the first two books and color ones in the last two, the author provides no text but alternates blank pages with small cutouts with the photos of familiar objects to emphasize small components of an image. The books effectively encourage observation and conversation when the details revealed by the cutouts are used as clues to identify the larger picture.

Holzenthaler, Jean. *My Hands Can.* New York: Dutton Children's Books, 1978. Very simple text and uncomplicated illustrations detail numerous things that hands can do. Left/right, symbolic language, and the negative things hands can do all make this an appropriate beginning-of-the-year book.

Hudson, Cheryl Willis. *Hands Can.* Cambridge, MA: Candlewick Press, 2003. Accompanied by very simple, rhyming text, expressive color photographs show toddlers and preschoolers using their hands in gross and fine motor activities.

Kates, Bobbi Jane. *We're Different. We're the Same.* New York: Random House, 1992. Rhyming text and colorful illustrations show the Sesame Street Muppets making comparisons of body parts that may look different but have similar functions. Comparisons and illustrations may sometimes be silly, but are effective and stimulate conversation.

Kirk, Daniel. *Bigger.* New York: Putman, 1998. This book on child development is told in a childlike way by a child. The story starts in the womb and goes through the stages and activities of childhood. Cartoon-like, full-page illustrations, with growing type also, reflect the pride a small child feels in growing "bigger."

Lehn, Barbara. *What Is a Scientist?* Brookfield, CT: Millbrook Press, 1998. "A scientist is a person who . . . " Simple text that can be read on multiple levels, and color photographs of working children describe many of the jobs that scientists do: questioning, observing, experimenting, drawing, etc. Activities shown include magnifying tools.

Llewellyn, Claire. *The Best Ears in the World*. North Mankato, MN: Smart Apple Media, 2002. Because a young rabbit thinks his ears look silly, readers get a lighthearted lesson in sound and hearing. Text can be read on two levels, but both are brief and easily understood by young children. For rabbits, hearing often means avoiding danger, but discussion of other values of listening can easily follow.

My Body/My Senses

Lunis, Natalie. *A Closer Look.* Northborough, MA: Newbridge Educational Publishing, 2007. Beautiful photographs introduce the general idea of observation and several aids to exploring small (magnifying lenses and microscopes) or faraway (binoculars and telescopes) things. A glossary, index, and more things to think about are included.

Macken, Joann Early. *Sing-Along Song.* New York: Viking, 2004. From morning's first robin to nighttime's moonrise, this little boy's "just gotta sing along." The rhyming, rhythmic text and cheerful illustrations will encourage the reader to listen and look for the sounds in their world.

Martin, Bill, Jr. and John Archambault, *Here Are My Hands*. New York: Henry Holt, 1985. Very brief text and expressive illustrations identify numerous external body parts and show children demonstrating different uses of each.

Marzollo, Jean. *Pretend You're A Cat.* New York: Penguin Books, 1990. Colorful multi-media drawings illustrate the thoughtful antics of children trying to imitate the sounds and movements of a dozen different animals. Children may not be aware of all the muscles in play, but repeating these experiences should be a good workout for little ones.

McCarthy, Mary. *A Closer Look*. New York: Greenwillow Books, 2007. Here is a peepbook with a twist. Short step-by-step questions and beautiful detailed illustrations lead the reader to look at three small items that eventually become part of a lush garden scene. Discussion can follow both looking at the details and seeing the big picture.

McMillan, Bruce, *Mouse Views.* New York: Holiday House, 1994. Someone left the class's mouse house open, setting up opportunities for readers to see the mouse's seemingly random tour of the elementary school from a different perspective. Wonderful color photos show enlarged, close-up views of familiar school tools. For those ready to try map-reading, a map and key of where the pet went is included.

McMillan, Bruce. *Sense Suspense.* New York: Scholastic, 1994. Readers are invited, in both English and Spanish, to identify 1) what something is—based on a single piece of the whole picture; and 2) which sense(s) they would use to learn about that item. Large colorful photographs aid the game.

McMullan, Kate and Jim McMullan. *I Stink!* New York: Joanna Colter Books, 2002. This is the story of a day in a garbage truck's life, told from the truck's point of view and including the fact that garbage smells bad! An alphabet of potential garbage is included. Sounds abound and children will surely want to imitate the actions.

My Body/My Senses

Miller, Margaret. *My Five Senses.* New York: Simon & Schuster Books for Young Readers, 1994. Beautiful large photographs of children illustrate each of the five senses with four examples per sense. Text is very brief, but the pictures evoke further conversation. Whatever else the senses may be used for, the book concludes: "With our five senses, we enjoy our world."

Moncure, Jane Belk. *The Five Senses.* Chicago: Childrens Press, 1990. Prof. Facto and a young visitor to the Five Senses Museum discuss the value and use of each of the five senses, including some comparisons with other animals. Several pages of easy experiments are added.

Morgenstern, Constance. *Good Night, Feet.* New York: Henry Holt, 1991. It is time for bed, and many readers will be familiar with the ritual of saying goodnight to various parts of the body before relaxing into sleep. The text reviews some of the daily activities of seven different parts, while the gently colored illustrations focus on getting the part into bed.

Otto, Carolyn. *I Can Tell By Touching.* New York: HarperCollins, 1994. Most books about touching give lots of examples of things to touch. This one does too, but it also suggests how touching is different than other senses, or what kinds of things you can learn from touching that you can't learn otherwise. Colorful illustrations have sufficient detail to make this good observation practice also. Readers will want to repeat some of the book's experiences.

Paul, Ann Whitford. *Hello Toes! Hello Feet!* New York: DK Publishing, 1998. From getting up to going to bed, this little girl's feet are active indoors and outside. Not all of her activities would be mother-approved (kicking the table, stomping her juice can), but children will love to try them all.

Pearson, Susan. *Hooray for Feet.* New York: Blue Apple, 2005. Simple, rhyming text and bright illustrations celebrate feet and toes that can run, jump, dance, move fast or slowly, and take children wherever they choose to go. Readers may find it hard to keep their feet still while reading this book!

Reidy, Hannah. *All Sorts of Noises.* Minneapolis, MN: Picture Window Books, 2005. Colorful cartoon drawings show children and grownups—and other animals—as they hear noises from morning to night and in diverse situations. Words for sounds are splashed across the pages.

Reiser, Lynn. *Beach Feet.* New York: Greenwillow Books, 1996. Fun illustrations and lots of footnotes with friendly scientific explanations show the feet of animals—including people—found at the beach. Footnote information is easily deleted in favor of the simple alliterative text and discussion of the illustrations.

My Body/My Senses

Reiser, Lynn. *My Baby and Me.* New York: Alfred A. Knopf, 2008. These interactions between babies and their slightly older siblings can remind children of their own growth. The simple text and photographs of familiar situations should provide ample opportunities for discussion.

Rockwell, Anne. *Growing Like Me*. Orlando: Harcourt, 2001. The young narrator is aware of the potential for growth in the plants and animals in his world. He knows, for instance, that the white blossoms on the blackberry bushes will yield sweet fruit eventually, and the blue eggs in the nest will hatch into robins soon. He also knows that his baby brother will someday grow up to be a big boy. Because of the examples used, the book supports the concept that growth is a characteristic of all living things.

Rockwell, Lizzy. *The Busy Body Book.* New York: Crown Publishers, 2004. "Busy" is the operative word in this title as the book describes in text and pictures how the body works inside and out. Several appropriately detailed diagrams are interspersed, inviting more study. Fitness is encouraged both in the colorful illustrations and with several additional ideas at the end.

Ryder, Joanne. *My Father's Hands.* New York: Morrow Junior Books, 1994. "No one will ever bring me better treasures than the ones cupped in my father's hands." This is a fitting conclusion to a gentle story of the wonders of nature shared by a father with his young daughter. Subtle details, in words and pictures, of several body parts make this a great conversation-starter and observation experience.

Seuss, Dr. *The Foot Book.* New York: Random House, 1968. With typical Dr. Seuss characters and illustrations, all kinds of feet do all the things that feet do.

Showers, Paul. *The Listening Walk.* New York: HarperCollins, 1991. How is a "listening walk" different from any other walk? A little girl, her father, and their dog Major demonstrate while the little girl describes what they hear when they are quiet and actively listening. Her descriptions suggest that being a good observer probably enhances the listening experiences. Her reminder at the end that you don't have to go far or even outside to hear sounds is a good one for classroom practice.

Suhr, Mandy. *I Am Growing.* Minneapolis, MN: Carolrhoda Books, 1991. Growth "seems to happen without your noticing." This book suggests how their activities change as babies become children, even though they may not be aware of the changes. It also discusses the role of food, sleep, and exercise in the growth process. Text is simple and cartoon illustrations promote discussion. Comparisons are made to plants and other animals. Several activities are suggested to make children more aware of both their own growth and that of other living things.

My Body/My Senses

Sweeney, Joan. *Me and My Amazing Body.* New York: Dragonfly Books, 2000. Anatomy 101 for children! Beginning with her skin, a young girl (with a missing tooth) describes how the otherwise internal parts of her body (bones, muscles, brain, blood, heart, lungs, and stomach) function. The colorful illustrations make this a book for curious children to pore over. A page of facts is added.

Sweeney, Joan. *Me and My Senses*. New York: Crown Publishers, 2003. Using the pretext of a question about her lunch menu, a young girl uses each of her senses in discovering the answer. Then some basic science about each sense is provided in simple text and colorful cartoon illustrations. The idea of using single or multiple senses at once is also explored briefly. The misleading items she is holding when she first asks the question should make an interesting side discussion for the observant reader.

Tekavec, Heather. *What's That Awful Smell?* New York: Penguin Young Readers, 2004. "Dog," while looking for a cool place for a nap, instead encounters a bad smell. He engages other animals in using their senses to try to solve the mystery of the awful smell in the barn. Children will enjoy solving a mystery involving noses.

Walton, Rick. *My Two Hands, My Two Feet.* New York: G. P. Putnam's Sons, 2000. This book will need to be read twice, once about hands and once about feet, first from front to mid-book and then flipped over between readings! In each case, action begins with rising from bed and ends with going to bed. Illustrations are clean and boldly colorful; brief text uses descriptive words.

Yagyu, Genichiro. *The Soles of Your Feet*. Brooklyn, NY. Kane/Miller Book Publishers, 1997. Originally published in Japan, this book introduces a body part that does not usually get much attention but may be the appropriate "more" for some children. Human feet are compared to other animals. Other stray pieces of information are provided in bold text and funny margin comments from the characters pictured. Functional illustrations tend to be line drawings in limited colors.

Young, Ed. *Seven Blind Mice/Siete Ratones Ciegos.* New York: Philomel Books, 1992. In this adaptation of *The Blind Men and the Elephant* fable, seven blind mice investigate a "strange Something" by the pond. The first six (identified by bold colors) choose to explore only a small part of "Something." It is only when the white mouse wisely investigates the whole that the big picture is revealed. Caldecott Honor Book

Zoehfeld, Kathleen Weidner. *What's Alive?* New York: HarperCollins, 1995. The similarities and differences among several living things are used to begin a discussion about how you can tell the difference between living and nonliving things, and the common characteristics of living things.

Other Recommended Books

Aker, Suzanne. *What Comes in 2's, 3's, and 4's?* New York: Simon & Schuster, 1990. The concept of counting to 2, 3, and 4 is introduced with everyday items, including parts of the body, in boldly colored illustrations.

Bang, Molly. *Ten, Nine, Eight*. New York: Greenwillow Books, 1983. A father helps his young daughter prepare for sleep by counting down from ten to one while observing things in her bedroom. Not surprisingly, body parts—eyes, toes, cheeks—are evident in their observations. Caldecott Honor Book

Bender, Lionel. *Magnification: A Closer Look*. Minneapolis, MN: Picture Window Books, 2006. This introduction to magnification may help older children understand the concept and serve as a starting point for discussions of other scientific tools.

Fleming, Denise. *Barnyard Banter.* New York: Henry Holt, 1994. Whether the goose is causing all the noise in the barnyard or the other animals are participating in the search for the goose is unclear, but what is evident is that many animals and their sounds are involved in this barnyard mystery. The colorful, handmade-paper illustrations and abundant distinctive sounds keep listeners actively involved in the experience.

Fowler, Allan. *Smelling Things*/*Feeling Things*/*Seeing Things*/*Tasting Things*/*Hearing Things*. Chicago: Childrens Press, 1991. Each of the little volumes in this small-format series first distinguishes its particular sense from the four other senses. Using brief text and photographs of generally familiar objects, each book uses multiple examples to introduce the relevant characteristics of that sense (e.g., hot/cold and hard/soft for touch, sweet/salty/sour for taste). Interactive activities are interspersed, and a picture glossary concludes each book.

Hamanaka, Sheila. *The Colors of the Earth*. New York: Morrow Junior Books, 1994. Both similarities and differences in the world are celebrated in rich, warm oil illustrations and flowing verse.

Hamm, Diane Johnston. *How Many Feet In The Bed?* New York: Simon & Schuster, 1991. It all begins when a little girl asks her just-awakening father an improbable question: "how many feet are in the bed?" As various family members tumble into, and then out of, his bed, the answer changes, of course. The cartoon-like drawings look like real people—a bit disheveled on a lazy morning. What a fun way to unconsciously learn to count to ten and that feet come in pairs!

Hines, Anna Grossnickle. *Big Like Me.* New York: Greenwillow Books, 1989. While especially relevant for a young child with a new brother or sister, this book also suggests the growth that children will have experienced, probably unconsciously, since they were babies. Gentle pastel illustrations invite conversations based on "do you remember when . . .?"

My Body/My Senses

Hubbell, Patricia. *Cars/Trains/Trucks.* Tarrytown, NY: Marshall Cavendish, 2003. Vehicles of all kinds and sizes zoom through the varied landscapes in these three volumes, each creating wonderful sounds to imitate and discuss. Different fonts are used to add visual clues. While the sounds are not dominate in any of the books, transportation books may provide the teachable moment for the reluctant reader.

Intrater, Roberta Grobel. *Two Eyes, a Nose, and a Mouth.* New York: Scholastic, 1995. Eyes, nose, and mouth may be the first facial features we notice, but that's only the beginning of the captivating facial features pictured here. What about the eyebrows? Or lips? The author reminds readers how appealing the great diversity in people's faces is.

Lewis, Kevin. *Chugga-Chugga Choo Choo.* New York: Hyperion Books For Children, 1999. A child's train set comes to life at night with all the whistle blowing/chugga-chugga/whoo whooing sounds that complete a train—and can be imitated, of course!

MacKinnon, Debbie. *Eye Spy Colors.* Watertown, MA: Charlesbridge, 1998. This introductory peephole book displays a colorful piece of "something" through a small cutout, plus one other word clue. Readers are invited to "spy with my little eye" and identify that thing and several others of the same color on the next pages. Most of the items and the five colors will be familiar to young children.

McMillan, Bruce. *One, Two, One Pair!* New York: Scholastic, 1991. Color photos of twin sisters preparing to ice skate introduce the concept of pairs and illustrates paired body parts.

Moss, Miriam. *Wibble Wobble.* Wilton, CT: Tiger Tales, 2001. Even pre-school children may have heard about the "loose tooth" experience from older siblings. Poor William seems to be the last in his class to lose a tooth, but when it happens, there's a little extra excitement.

Perkins, Al. *Hand, Hand, Fingers, Thumb.* New York: Random House, 1969. Cartoon monkeys dance as they explain hands, fingers and thumbs.

Perkins, Al. *The Ear Book.* New York: Random House, 1968. What are ears used for? This rhyming story, with its fun and silly illustrations, is filled with common examples that should raise a youngster's awareness of the answers and provide good observation opportunities.

Pfeffer, Wendy. *Sounds All Around.* New York: HarperCollins, 1999. Directions to "snap your fingers" and "clap your hands" will require a delay in reading (because everyone will want to try it), but what follows is an illustrated explanation of how we hear, what value sound has for people and other animals, echolocation, and how sound can be measured. Even though this is a Stage 1 Let's-Read-and-Find-Out book, the information may need selective reading for young children. Teachers might also use it for reference and for the suggested activities at the back.

My Body/My Senses

Rice, Eve. *Swim!* New York: Greenwillow Books, 1996. This gentle story about a young girl and her father going swimming at the local pool lends itself to a discussion of various body parts and sensory experiences.

Robinson, Fay. *Sound All Around*. Chicago: Childrens Press, 1994. Limited only by its small-book format, this little volume provides introductory ideas about sound. Photographs show familiar objects, and text is brief. Suggestions for seeing and feeling vibrations—the key to understanding hearing sound—are particularly useful.

Rydell, Katy. *Wind Says Goodnight.* New York: Houghton Mifflin, 2000. The sounds of the night from the cricket, frog, etc. are keeping a little girl awake. Finally a helpful cloud and the wind solve the problem. Repetitive lyrical text and softly colored, humorous illustrations make this an appropriate pre-naptime experience.

Schoenberg, Jane. *My Bodyworks.* New York: Crocodile Books, 2005. These printed songs about bones, heart, muscles, lungs, etc. are accompanied by illustrations that invite further observation. The 12-song CD is included so listeners/readers can sing and move along.

Singer, Marilyn. *The One and Only Me.* New York: HarperCollins, 2000. In simple rhyme, a young girl describes ways in which she resembles other members of her family, but yet is unique. “But looking at my family, I know just what I see, I may have a bit of everyone, but they all add up to me. Completely, uniquely, definitely, specially, and the one and only ME!” The illustrations are sufficiently detailed to allow comparisons of features.

Walsh, Melanie. *My Nose, Your Nose.* Boston: Houghton Mifflin, 2002. Arthur and Kit are different but the same. They have similar body parts—like noses and hair—that appear different from each other, but their feelings and actions are the same—they both like the smell of chocolate cake and dislike shampoo. Simple, bold illustrations and brief text review body parts, but both invite a discussion of why our similarities are greater than our differences.

Weeks, Sarah. *If I Were a Lion.* New York: Simon & Schuster, 2004. With colorful illustrations and rhyme, a little girl is called wild by her mother. The little girl then compares her own actions to what a real wild animal would do inside a house.

Head Start Domains and Indicators Associated with Core and Center Experiences

Domain & Indicators	Experience																
Language Development	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	T-H
Demonstrates increasing ability to attend to and understand conversations, stories, songs, poems.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Shows progress in understanding and following simple and multi-step directions.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Understands an increasingly complex and varied vocabulary.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
For Non-English speaking children, progresses in listening to and understanding English.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Develops increasing abilities to understand and use language to communicate information, experiences, ideas, feelings, opinions, needs, questions, and for other varied purposes.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Progresses in abilities to imitate and respond appropriately in conversation and discussions with peers and adults.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Uses an increasingly complex and varied spoken vocabulary.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Progresses in clarity of pronunciation and towards speaking in sentences of increasing length and grammatical complexity.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
For Non-English speaking children, progresses in speaking English.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
LITERACY																	
Shows increasing ability to discriminate and identify sounds in spoken language.																	
Shows growing awareness of the beginning and ending sounds of words.																	
Progresses in recognizing matching sounds and rhymes in familiar words, games, songs, stories and poems.																	
Shows growing ability to hear and discriminate separate syllables in words.																	

Head Start Domains and Indicators Associated with Core and Center Experiences

Domain & Indicators	Experience																
LITERACY CONTINUED	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	T-H
Associates sounds with written words, such as awareness that different words begin with the same sound.																	
Shows growing interest and involvement in listening to and discussing a variety of fiction and nonfiction books and poetry.																	•
Shows a growing interest in reading-related activities, such as asking to have a favorite book read; choosing to look at books; drawing pictures based on stories; asking to take books home; going to the library; and engaging in pretend-reading with other children.																	•
Demonstrates progress in abilities to retell and dictate stories, to act out stories, and to predict what will happen next in a story.																	•
Progresses in learning how to handle and care for books; knowing to view one page at a time in sequence from front to back; and understanding that a book has a title, author and illustrator.			•														•
Shows increasing awareness of print in classroom, home and community settings.	•							•				•		•			•
Develops growing understanding of the different functions of forms or print such as signs, letters, newspapers, lists, messages, and menus.	•							•				•		•			•
Demonstrates increasing awareness of concepts of print, such as that reading in English moves from top to bottom and from left to right, that speech can be written down, and that print conveys a message.	•							•				•		•			•
Shows progress in recognizing the association between spoken and written words by following print as it is read aloud.	•							•				•		•			•
Recognizes a word as a unit of print, or awareness that letters are grouped to form words, and that words are separated by spaces.	•							•				•		•			•
Develops understanding that writing is a way of communicating for a variety of purposes.																	

Head Start Domains and Indicators Associated with Core and Center Experiences

Domain & Indicators	Experience																
LITERACY CONTINUED	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	T-H
Begins to represent stories and experiences through pictures, dictation, and in play.																	
Experiments with a growing variety of writing tools and materials, such as pencils, crayons, and computers.																	
Progresses from using scribbles, shapes, or pictures to represent ideas, to using letter-like symbols, to copying or writing familiar words such as their own name.																	
Shows progress in associating the names of letters with their shapes and sounds.																	
Increases in ability to notice the beginning letters in familiar words.																	
Identifies at least 10 letters of the alphabet, especially those in their own name.																	
Knows the letters of the alphabet are a special category of visual graphics than can be individually named.																	
MATHEMATICS																	
Demonstrates increasing interest and awareness of numbers and counting as a means of solving problems and determining quantity.																	
Begins to associate number concepts, vocabulary, quantities, and written numerals in meaningful ways.																	
Develops increasing ability to count in sequence to 10 and beyond.																	
Begins to make use of one-to-one correspondence in counting objects and in matching groups of objects.					•		•	•									
Begins to use language to compare numbers of objects with terms such as more, less, greater than, fewer, equal to.																	
Develops increased abilities to combine, separate and name “how many” concrete objects.																	

Head Start Domains and Indicators Associated with Core and Center Experiences

Domain & Indicators	Experience																
MATHEMATICS CONTINUED	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	T-H
Begins to recognize, describe, compare, and name common shapes, their parts and attributes.																	
Progresses in ability to put together and take apart shapes.																	
Begins to be able to determine whether or not two shapes are the same size and shape.																	
Shows growth in matching, sorting according to 1 or 2 attributes such as color, shape or size.																	
Builds an increasing understanding of directionality, order and positions of objects, and words such as up, down, over, under, top, bottom, inside, outside, in front, and behind.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Enhances abilities to recognize, duplicate and extend simple patterns using a variety of materials.																	
Shows increasing abilities to match, sort, put in a series, and regroup objects according to one or two attributes such as shape or size.																	
Begins to make comparisons between several objects based on a single attribute.																	
Shows progress in using standard and non-standard measures for length and area of objects.																	
SCIENCE																	
Begins to use senses and a variety of tools and simple measuring devices to gather information, investigate materials, and observe processes and relationships.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Develops increased ability to observe and discuss common properties, differences and comparisons among objects and materials.						•											
Begins to participate in simple investigations to test observations, discuss and draw conclusions and form generalizations.		•	•	•	•	•	•	•	•	•	•		•				

Head Start Domains and Indicators Associated with Core and Center Experiences

Domain & Indicators	Experience																
SCIENCE CONTINUED	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	T-H
Develops growing abilities to collect, describe and record information through a variety of means, including discussion, drawings, maps and charts.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Begins to describe and discuss predictions, explanations, and generalizations based on past experiences.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Expands knowledge of and abilities to observe, describe and discuss the natural world, materials, living things, and natural processes.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Expands knowledge of and respect for their body and the environment.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Develops growing awareness of ideas and language related to attributes of time and temperature.																•	
Shows increased awareness and beginning understanding of changes in materials and cause-effect relationships.																	
CREATIVE ARTS																	
Participates with increasing interest and enjoyment in a variety of music activities, including listening, singing, finger plays, games, and performances.																	
Experiments with a variety of musical instruments.																	
Gains ability in using different art media and materials in a variety of ways for creative expression and representation.																	
Progresses in abilities to create drawings, paintings, models, and other art creations that are more detailed, creative or realistic.																	
Develops growing abilities to plan, work independently, and demonstrate care and persistence in a variety of art projects.																	
Begins to understand and share opinions about artistic products and experiences.																	

Head Start Domains and Indicators Associated with Core and Center Experiences

Domain & Indicators	Experience																
CREATIVE ARTS CONTINUED	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	T-H
Expresses through movement and dancing what is felt and heard in various musical tempos and styles.																	
Shows growth in moving in time to different patterns of beat and rhythm in music.																	
Participates in a variety of dramatic play activities that become more extended and complex.																	
Shows growing creativity and imagination in using materials and in assuming different roles in dramatic play situations.																	
SOCIAL & EMOTIONAL DEVELOPMENT																	
Begins to develop and express awareness of self in terms of specific abilities, characteristics and preferences.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Develops growing capacity for independence in a range of activities, routines, and tasks.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Demonstrates growing confidence in a range of abilities and expresses pride in accomplishments.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Shows progress in expressing feelings, needs and opinions in difficult situations and conflicts without harming themselves, others, or property.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Develops growing understanding of how their actions affects others and begins to accept the consequences of their actions.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Demonstrates increasing capacity to follow rules and routines and use materials purposefully, safely, and respectfully.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Increases abilities to sustain interactions with peers by helping, sharing, and discussion.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Shows increasing abilities to use compromise and discussion in working, playing, and resolving conflicts with peers.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Head Start Domains and Indicators Associated with Core and Center Experiences

Domain & Indicators	Experience																
SOCIAL & EMOTIONAL CONTINUED	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	T-H
Develops increasing abilities to give and take in interactions; to take turns, and to interact without being overly submissive or directive.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Demonstrates increasing comfort in talking with and accepting guidance and directions from a range of familiar adults.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Shows progress in developing friendships with peers.																	
Progresses in responding sympathetically to peers who are in need, upset, hurt, or angry; and in expressing empathy or caring for others.																	
Develops ability to identify personal characteristics including gender, and family composition.	•																
Progress in understanding similarities and respecting differences among people, such as genders, race, special needs, culture, language, and family structures.	•						•										
Develops growing awareness of jobs and what is required to perform them.																	
Begins to express and understand concepts and language of geography in the contexts of their classroom, home, and community.																	
APPROACHES TO LEARNING																	
Chooses to participate in an increasing variety of tasks and activities.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Develops increased ability to make independent choices.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Approaches tasks and activities with increased flexibility, imagination, and inventiveness.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Grows in eagerness to learn about and discuss a growing range of topics, ideas and tasks.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Grows in abilities to persist in and complete a variety of tasks, activities, projects, and experiences.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Head Start Domains and Indicators Associated with Core and Center Experiences

Domain & Indicators	Experience																
APPROACHES TO LEARNING CONTINUED	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	T-H
Demonstrates increasing ability to set goals and develop and follow through on plans.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Shows growing capacity to maintain concentration, despite distractions and interruptions.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Develops increasing ability to find more than one solution to a question, task or problem.					•	•											
Grows in recognizing and solving problems through active exploration, including trial and error, and interactions and discussions with peers and adults.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Develops increasing abilities to classify, compare, and contrast objects, events, and experiences.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PHYSICAL HEALTH AND DEVELOPMENT																	
Develops growing strength, dexterity, and control needed to use tools such as scissors, paper punch, stapler, and hammer.				•													
Grows in hand-eye coordination in building with blocks, putting together puzzles, reproducing shapes and patterns, stringing beads and using scissors.																	
Progresses in abilities to use writing, drawing and art tools including pencils, markers, chalk, paint brushes, and various types of technology.																	
Shows increasing levels of proficiency, control and balance in walking, climbing, running, jumping, hopping, skipping, marching and galloping.																	
Demonstrates increasing abilities to coordinate movements in throwing, catching, kicking, bouncing balls, and using the slide and swing.																	
Progresses in physical growth, strength, stamina, and flexibility.																	
Participates actively in games, outdoor play and other forms of exercise that enhance physical fitness.																	

Head Start Domains and Indicators Associated with Core and Center Experiences

Domain & Indicators	Experience																
PHYSICAL HEALTH AND DEVELOPMENT CONTINUED	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	T-H
Shows growing independence in hygiene, nutrition and personal care when eating, dressing, washing hands, brushing teeth and tolieting.																	
Builds awareness and ability to follow basic health and safety rules such as fire safety, traffic and pedestrian safety, and responding appropriately to potentially harmful objects, substances and activities.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•