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Lesson Exemplars for English Language Learners/Multilingual Learners: The Human Body Tell It Again! First Grade Read-Aloud Anthology

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1: Everybody Has a Body[1]

https://www.engageny.org/resource/grade-1-listening-learning-domain-2-anthology-human-body

Lesson Objectives

Core Vocabulary

human, *adj.* Relating to or characteristic of people; *about people*
Example: Sometimes it seemed as if her dog had human emotions. *Her dog seemed to feel the same emotions that people feel.*
Variation(s): none

network, *n.* A group of interconnecting parts or systems that work together as a unit; parts that are connected and work together
Example: The boy created a network of roads for his toy car. *The roads were connected so the toy cars could travel around the toy city.*
Variation(s): networks

organs, *n.* Body parts that perform, *or do*, specific functions, *or jobs*
Example: All of the organs in your body work to keep you healthy. *Examples of organs are lungs and stomachs.*
Variation(s): organ

oxygen, *n.* A gas in air and water that is necessary for life on Earth; *a gas that is part of air*
Example: Humans take oxygen into their lungs from the air they breathe. *We need oxygen to live.*
Variation(s): none

systems, *n.* Groups of organs that work together in the human body
Example: Human body systems include the digestive system and the circulatory system.
Variation(s): system

Introducing the Read-Aloud

Domain Introduction

Tell students that for the next few weeks they will learn about their own bodies and how they work. Explain to them that their bodies are like complicated machines made up of many different parts. Some parts are visible, while others are hidden from view, located inside their bodies.

[1] The additional supports added to the lessons are in italicized red font.

Make a KWL Chart to introduce this new domain. Use large chart paper so that you can add more information to the chart as students listen to multiple read-alouds. This chart will be used throughout the next five read-alouds to determine what your students may already know (K), what they wonder (W), and what they have learned (L) about how their bodies work.

Make three columns labeled 'K,' 'W,' and 'L.' Prior to recording students' responses, point out that you are going to write down what they say, but that they are not expected to read what you write because they are still learning the rules for decoding words. Emphasize that you are writing what they say so that you don't forget, and that you will read the chart to them.

Give students the opportunity to share anything they already know about how their bodies work. As students respond, repeat and expand upon each response using richer and more complex language, including, if possible any read-aloud vocabulary. Record students' responses under the 'K' of the KWL Chart. If a student's response includes inaccurate factual information, record it nonetheless and acknowledge the response by saying something like, "So you think that your heart is shaped like a Valentine heart? We'll have to listen very carefully to our read-alouds and find out if that's true!"

What Do We Know?

Explain to students that most of the time their bodies work well, but that sometimes, just like machines, they stop working correctly. Brainstorm solutions for repairing broken machines. You might ask:

- Whom would you call if your car wouldn't start?
- Whom would you call if your telephone made funny sounds?
- Whom would you call if your washing machine overflowed?

Then ask:

- Whom would you call if you had a very high fever or a terrible tummy ache?

Explain that there are many kinds of doctors with different specialties. *There are different kinds of doctors*. (dentists for teeth, obstetricians for delivering babies, etc.) Then tell students that the type of doctor who cares especially for children is called a pediatrician.

← **Show image 1A-1:** ***Say:*** **Meet Dr. Welbody.** ***[Point to Dr. Welbody.]***

Point to the picture of Dr. Welbody. Explain to students that Dr. Welbody is a pediatrician. Tell them that she takes care of sick children but that she also knows lots of ways to help children stay well so that they won't get sick too often. She is going to help them understand their bodies.

Purpose for Listening

Tell students to listen carefully to find out what is in their bodies beneath their skin that keeps them alive and healthy.

Presenting the Read-Aloud

Everybody Has a Body

← **Show image 1A-1:** ***Say:*** **Meet Dr. Welbody.** ***[Point to Dr. Welbody.]***

Pleased to meet you. I'm Dr. Welbody, the rhyming pediatrician. Being a pediatrician is my job. That means that I am a medical doctor who takes care of children. When healthy children come to me for checkups, I help them stay healthy. When sick children come to me, I help them get better. I know how to do these things because I studied very hard in medical school, the kind of school you go to if you want to be a doctor. I learned all about how the human body works.[1] *What is Dr. Welbody's job?*

[1] *Human* means having the characteristics of, or acting like, a person.

As for rhyming, that is my hobby. Do you like rhyming, too? I think it is fun to make up rhymes. *Rhymes are words that have the same sounds. For example, the words "to" and "do" and "you" rhyme. They sound the same. What are some other words that rhyme?*

Here's one I made up about my favorite subject, the human body:

← **Show image 1A-2:** ***Say:*** **Dr. Welbody.** ***[Point to Dr. Welbody.]***

Everybody has a body
And I have one, too.
It is grand to understand
The things our bodies do.
Now you say it with me.[2]

[2] [Ask students to echo each line after you as you repeat the rhyme.]

← **Show image 1A-3:** ***Say:*** **Diverse people.**[3] ***[Point to the people.]***

The human body truly is an amazing thing. Some parts of a human are on the outside where we can see them. What parts of your body

can you see? What parts of the children sitting near you can you see?[4] You can probably see skin, hair, faces, and fingernails. Skin comes in different colors. Hair does, too. Hair may be curly, wavy, or straight. Eyes may be brown, blue, or green. People are also different sizes and different ages, too.[5]

[3] What do you see in this picture?

[4] [Pause for answers.]

[5] [Ask two students to pick someone with a different hair or eye color than themselves.]

← Show image 1A-4: *Say:* Diagram of the human body. *[Point to the diagram.]*

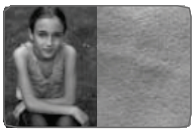
Although people may look somewhat different from one another on the outside, on the inside all humans are pretty much alike. *On the inside humans are mostly the same.* All humans have **organs**. *Organs are parts of our bodies. All humans have organs,* such as stomachs and intestines,[6] inside them. The organs work together in **systems**[7] to keep each person alive and healthy. For example, the stomach and intestines are part of the digestive system, which turns the food you eat into energy. During our time together, I am going to teach you about the skeletal system, muscular system, digestive system, circulatory system, and nervous system; these systems allow you to grow, move, think, hear, see, feel, and speak. They also enable your body to breathe air, digest food, and even heal itself. *What is Dr. Welbody going to tell us about?*

[6] [Point to the diagram.] This is one meaning of the word *organs.* Organs are also musical instruments that have keyboards, similar to a piano.

[7] A system is a group of organs working together.

And the systems are all tied together into a **network.** *A network is a group of systems working together*.[8] The human body is a network of different systems that work together; each system is made up of certain organs that help it do a special job.

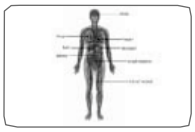
[8] [Draw three concentric circles on chart paper, chalkboard, or whiteboard. Write "organs" in the center circle, "systems" in the middle, and "network" in the out circle.]



← Show image 1A-5: *Say:* Skin. *[Point to the diagram.]*

The outside of your body is covered by skin, the body's biggest organ. Your skin keeps your "insides" inside you. *Your skin keeps your organs inside your body.* Your skin grows with you. It stretches when you move and keeps out dirt and water. It keeps you cool in the heat and warm in the cold. You can feel things with your skin. If you cut yourself, your skin will mend or fix itself. Pretty amazing![9] *What does your skin do?*

[9] What is our body's biggest organ?



← Show image 1A-6: *Say:* Diagram of the human body. *[Point to the parts of the diagram as they are named.]*

The organs and systems that keep the body working are mostly hidden inside the body where we can't see them. Almost everything inside a human has a purpose. *Almost all of the organs in the human body have a special job.* Touch your tummy.[10] Inside your tummy the stomach and the small intestine turn food into fuel. *What do the stomach and small intestine do?*

Other nearby organs, called the liver and the kidneys, help clean out waste. *Your liver and your kidneys are close to your stomach. They have a special job. What do the liver and kidneys do?*

[10] [Model for students and pause until all students are engaged.]

Now put your hands on your chest.[11] The lungs are inside your chest. *Your lungs help you breathe.* They are the organs that take in air when you breathe. Take a deep breath. When you do this, your lungs are filling up with air like balloons and your chest rises.[12] We need **oxygen** from this air to stay alive. The oxygen from the air you breathe goes into your blood. Then your heart pumps the blood with oxygen to all parts of your body. *What do your lungs do?*

[11] [Demonstrate as before.]

[12] What happens to your chest when you breathe out?

Now, put your hands on your head. Inside your head is your brain. *Your brain helps you think.* The brain is your control center. Try wiggling your finger. Your brain just sent messages through tiny cables called nerves to tell the muscles in your finger to move.[13] Your brain helps you learn, see, talk, laugh, and dream. *What does your brain do?*

[13] The muscles that move the fingers are located in the forearm. [Students might want to hold their right forearms with their left hands and then flex the fingers of their right hands. They will be able to feel the muscles moving.]

← Show image 1A-7: *Say:* Meet Dr. Welbody. *[Point to the doctor.]*

In our time together we are going to learn fascinating facts about the body such as:

- How many bones you have,
- Which muscle is the biggest in your body,
- Why food that you ate two days ago is still in your body today,
- How long it takes for your blood to circle all around your body,
- What controls your five senses

and much, much more. I hope you are as excited as I am.

← **Show image 1A-8:** ***Say:*** **Dr. Welbody.** ***[Point to the doctor.]***

Now, before I go, let's say the body rhyme together again:[14]

Everybody has a body
And I have one, too.
It is grand to understand
The things our bodies do.

Okay, then—bye until next time!

[14] [Ask students to echo each line after you.]

Discussing the Read-Aloud

Comprehension Questions

If students have difficulty responding to questions, reread pertinent passages of the read-aloud and/or refer to specific images. If students give one-word answers and/or fail to use read-aloud or domain vocabulary in their responses, acknowledge correct responses by expanding the students' responses using richer and more complex language. Ask students to answer in complete sentences by having them restate the question in their responses.

1. *Literal* Name some of the things that are hidden inside your bodies. (stomach, small intestine, liver, kidneys, lungs, skull, brain, muscles, nerves, bones, blood) *Listen first: Almost everything inside a human has a purpose. Inside your tummy the stomach and the small intestine turn food into fuel. Other nearby organs, called the liver and the kidneys, help clean out waste. (p.8)*

   The lungs are inside your chest. They are the organs that take in air when you breathe. Then your heart pumps the blood with oxygen to all parts of your body. (p.9)

   Inside your head is your brain. Your brain helps you learn, see, talk, laugh, and dream. (p. 9) **Name some of the things that are hidden inside your bodies.**

2. *Literal* The human body is made up of organs. Most of your organs are inside your body, but the body's biggest organ is on the outside, covering all of the other organs. What is that organ called? (skin) *Listen first: The outside of your body is covered by skin, the body's biggest organ. Most of your organs are inside your body, but the body's biggest organ is on the outside, covering all of the other organs. (p. 8)* **What is that organ called?**

3. *Literal* All of the body's systems work together to form a network called the human body. What two words do you hear in the word *network*? (net and work) [You may wish to discuss how the skin is like a net that holds all of the body systems together.]

4. *Inferential* Dr. Welbody said that the stomach and intestines are organs that are part of your digestive system, which turns the food you eat into energy. Certain organs in the body make up different systems that help the body do different things. What are some of the things that body systems help your body do? (eat, breathe, stand, walk, run, think, hear, see, feel, speak) *Listen first: During our time together, I am going to teach you about the skeletal system, muscular system, digestive system, circulatory system, and nervous system; these systems allow you to grow, move, think, hear, see, feel, and speak. They also enable your body to breathe air, digest food, and even heal itself. (p. 8)* **What are some of the things that those body systems help your body do?**

5. *Literal* There are many kinds of doctors who have different specialties. What kind of a doctor is Dr. Welbody and what is her specialty? (pediatrician; children) *Listen first: Being a pediatrician is my job. That means that I am a medical doctor who takes care of children. (p. 7)* **What kind of a doctor is Dr. Welbody and what is her specialty?**

6. *Inferential* If you had a toothache, would Dr. Welbody be a good person to help you? (no) What kind of doctor would be a better person to take care of a toothache? (dentist)

[Please continue to model the *Think Pair Share* process for students, as necessary, and scaffold students in their use of the process.]

I am going to ask a question. I will give you a minute to think about the question, and then I will ask you to turn to your neighbor and

discuss the question. Finally, I will call on several of you to share what you discussed with your partner.

7. *Evaluative Think Pair Share:* Dr. Welbody named five of your body's networks. *Dr. Welbody talked about the skeletal system, the muscular system, the digestive system, the circulatory system, and the nervous system.* Do you think one of those is more important than the others? If so, which one and why? (Answers may vary.)

8. After today's read-aloud and questions and answers, do you have any remaining questions? [If time permits, you may wish to allow for individual, group, or class research of the text and/or other resources to answer these remaining questions.]

2: The Body's Framework

https://www.engageny.org/resource/grade-1-listening-learning-domain-2-anthology-human-body

Lesson Objectives

Core Vocabulary

joint, *n.* The point where two bones meet

Example: The ballerina used her hip joint to lift her leg high into the air.
Variation(s): joints

skeletal system, *n.* Bones linked together, *or joined*, to support, *or hold up*, the body, give it shape, protect its organs, and help make movement possible

Example: There are about 206 bones in the adult skeletal system.
Variation(s): skeletal systems

skeleton, *n.* The frame that supports the body and gives it shape

Example: There is a skeleton in our science classroom so we can learn about bones.
Variation(s): skeletons

skull, *n.* The helmet-shaped bone that protects the brain, *or keeps the brain safe*, and supports the muscles in a person's face

Example: The girl touched the skull of the classroom skeleton and found it was very smooth.
Variation(s): skulls

spine, *n.* The column of bones that forms the backbone of some skeletons; *the bones of the back*

Example: The boy felt a shiver go up his spine as he watched the scary movie.
Variation(s): spines

support, *v.* To hold up something or somebody so that it/he will not fall down

Example: The beams of the house support the roof.
Variation(s): supports, supported, supporting

Introducing the Read-Aloud

What Have We Already Learned?

Remind students that Dr. Welbody, the rhyming pediatrician, said that she was going to teach them about all of the systems at work inside their bodies. Each system is made up of different organs or parts that do special jobs for the human body. The systems are all tied

together in a network to keep the human body alive and healthy. Tell students that today they are going to learn about the skeletal system.

If you have access to a model skeleton, share it with the class so that students can see the variety of bones that make up their bodies.

← Show image 2A-1: Dr. Welbody showing skeleton

Ask students what they see in this image. Prompt them to use the word *skeleton* in identifying the bones. Ask if any students want to guess how many bones are in a human skeleton. Ask them where they have seen skeletons before. Tell them that they all have skeletons inside their bodies. All of their bones work together in a system called the skeletal system.

Purpose for Listening

Now that they've learned that systems are made up of different parts, ask students to listen to find out the names of different parts of the skeletal system.

Presenting the Read-Aloud

The Body's Framework

← Show image 2A-1: *Say:* Dr. Welbody showing skeleton. *[Point to the skeleton.]*

Did you think a **skeleton** was just a scary thing you might see in a movie or on Halloween? Well, I, Dr. Welbody, am here to tell you that there is a lot more to a skeleton than that. We are about to explore some facts about your skeleton and mine. That's right—we all have skeletons hidden underneath our skin. A person's skeleton is made up of bones—about 206 in all.[1] If you did not have a hard skeleton like this to **support** you,[2] your body would be as soft and floppy as a rag doll's. *What does your skeleton do?*

Feel your arm.[3] That hard thing inside is a bone.

[1] Is this number more or less than what you thought?
[2] or hold up

[3] [Pause, modeling for students until all are engaged.]

← ***Show image 2A-2:*** ***Say:*** ***Skeleton protecting organs.*** ***[Point to the skeleton.]***

Bones give your body shape and protect the softer parts of you. Touch your chest. If you touch the sides of your chest you can feel the bones called ribs.[4] *They look something like bars on a cage. In fact, that part of your body is called your rib cage. It protects your heart and lungs. Touch your head. Now tap lightly on your head to feel the bone called your* ***skull****. It is like a helmet made of flat bones, and it protects your brain. Bones are amazing! Did you know that one bone in your ear is as small as a grain of rice? What do bones do?*

[4] *[Pause while students feel their ribs. Point to the rib cage in the illustration.]*

← **Show image 2A-3:** ***Say:*** **Spongy bone.** ***[Point to the bone.]***

Your bones are not very heavy because they are filled with a light, spongy material called marrow. Yet *bones are very strong.* They are stronger than steel. And if you break a bone, the broken ends will heal by growing together again. Isn't that amazing?

← **Show image 2A-4:** ***Say:*** **Joints** ***[Point to the skeleton.]***

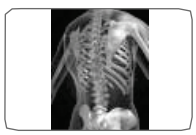
A **joint** is a place where two bones meet or join together. Bones cannot bend. But at a joint, the bones connect in ways that let us move and bend our bodies. *Touch your knees.* Stand up and try bending your knees. Now stand up straight again. Do this a few times. Did you notice how your knees moved forward and back like hinges on a door? But your knees cannot bend in the other direction. That is how your knee joint works.[5] *Touch your hips.* Your hip joint is at the place where the top of your leg meets your body. Your hip joint is like a ball on the end of one bone that fits into a socket (an opening in the shape of a bowl) on another. It lets you move your leg up and down and turn it so that you can kick, walk, run, and jump. *What do joints do?*

Now, touch your wrist.[6] It contains lots of tiny bones and different sorts of joints. These joints let you draw, write, and throw a ball. Can you find other places in your body where there are joints?[7]

[5] [Once students are seated again, point to and define each of the joints pictured.]

[6] [Pause until all students are engaged.]

[7] [Pause for suggestions: e.g., elbow, shoulder, ankle, fingers.]



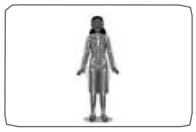
← **Show image 2A-5:** ***Say:*** **Spine** ***[Point to the spine on the skeleton.]***

Touch your back. Run your hand down the middle of your back. Do you feel the line of small bones that runs up and down it? Those small bones are called vertebrae. Each vertebra is a joint. Together they let you bend and twist your body in different directions. Taken all together, the vertebrae make up your **spine.**[8] Your spine covers

[8] The spine is the column of bones that forms your backbone. The word *spine* can have other meanings.

your spinal cord, which is part of another system that we will learn about later. *What are vertebrae? What do they do?*

For example, a spine of a book is the outside edge of a book that you see when it is on a shelf.



← Show image 2A-6: *Say:* Dr. Welbody's skeleton. *[Point to her skeleton.]*

Your amazing **skeletal system** is made up of bones that are linked together to support your body, give you shape, protect your organs, and help you move. *What does your skeletal system do?* Would you like to hear a rhyme about my skeleton? Here goes:

Without my hidden skeleton,
I could not stand up tall.
And so, "Hurray for bones," I say,
Two hundred six in all!
Let's say it all together now.[9]

[9] [Ask students to echo each line after you.]

That's all for now. But before I go, let me see each of you stand up and move your skeleton![10] Wow! Tomorrow, we are going to learn about another system that works with your skeletal system to help you move. See you next time!

[10] [Pause until all students are engaged.]

Discussing the Read-Aloud

Comprehension Questions

If students have difficulty responding to questions, reread pertinent passages of the read-aloud and/or refer to specific images. If students give one-word answers and/or fail to use read-aloud or domain vocabulary in their responses, acknowledge correct responses by expanding the students' responses using richer and more complex language. Ask students to answer in complete sentences by having them restate the question in their responses.

1. *Literal* What are some of the names of the bones and different parts of the skeletal system that you heard about in the read-aloud? (ribs, rib cage, skull, vertebrae or spine) *Listen first: If you touch the sides of your chest you can feel the bones called ribs. In fact, that part of your body is called your rib cage.* It protects your heart and lungs.
   *Now tap lightly on your head to feel the bone called your **skull**. It is like a helmet made of flat bones, and it protects your brain.*

(pp. 13-14) Run your hand down the middle of your back. Do you feel the line of small bones that runs up and down it? Those small bones are called vertebrae. Each vertebra is a joint. Together they let you bend and twist your body in different directions. Taken all together, the vertebrae make up your spine. (p. 14) **What are some of the names of the bones and different parts of the skeletal system that you heard about in the read-aloud?**

2. *Inferential* Why do you have a skeleton? (to support you, give your body shape, help with movement of the body, and protect important organs) *Listen first: If you did not have a hard skeleton like this to* ***support*** *you, your body would be as soft and floppy as a rag doll's. Bones give your body shape and protect the softer parts of you. (p. 13) Your amazing* ***skeletal system*** *is made up of bones that are linked together to support your body, give you shape, protect your organs, and help you move. (p. 15)* **Why do you have a skeleton?**

3. *Evaluative* The title of this read-aloud is "The Body's Framework." Now that you know what the skeleton does, can you guess why it is called a framework? *(A framework is a structure that supports something. For example, in this room the walls support the roof.)* (Answers may vary. Help students draw the analogy between beams that hold up a house and bones that hold up their bodies.) *Listen first: Bones give your body shape and protect the softer parts of you. (p. 13). Remember, a framework is a structure that supports something.* **Now that you know what the skeleton does, can you guess why it is called a framework? What does your skeleton support?**

4. *Literal* Your skull bones are located in your head. What do they protect? (brain) *Listen first: Now tap lightly on your head to feel the bone called your* ***skull****. It is like a helmet made of flat bones, and it protects your brain. (pp. 13-14)* **What do they protect?**

5. *Literal* Joints connect your bones to help you bend. Can you name some places in your body where joints are located? (knees, elbows, hips, shoulders, ankles, wrists, fingers, toes) *Listen first: Did you notice how your knees moved forward and back?*[5] *Your hip joint is at the place where the top of your leg meets your body.*

Now, touch your wrist.[6] *It contains lots of tiny bones and different sorts of joints. These joints let you draw, write, and throw a ball. Run your hand down the middle of your back. Do you feel the line of small bones that runs up and down it? Those small bones are called vertebrae. Each vertebra is a joint. Together they let you bend and twist your body in different directions. (p. 14)*
Can you name some places in your body where joints are located?

6. *Literal* Your spine is made up of bones called vertebrae. Where is your spine? (Down your back) *Listen first: Run your hand down the middle of your back. Do you feel the line of small bones that runs up and down it? Those small bones are called vertebrae. (p. 14)*
Where is your spine?

[Please continue to model the *Think Pair Share* process for students, as necessary, and scaffold students in their use of the process.]

7. *Evaluative* *Where? Pair Share:* Asking questions after a read-aloud is one way to see how much everyone has learned. Think of a question you can ask your neighbor about the read-aloud that starts with the word *where.* For example, you could ask, "Where is your spine?" Turn to your neighbor and ask your *where* question. Listen to your neighbor's response. Then your neighbor will ask a new *where* question, and you will get a chance to respond. I will call on several of you to share your questions with the class. *You can use this sentence starter: Where is your _____?*

8. After hearing today's read-aloud and questions and answers, do you have any remaining questions? [If time permits, you may wish to allow for individual, group, or class research of the text and/or other resources to answer these remaining questions.]

3: Marvelous Moving Muscles

https://www.engageny.org/resource/grade-1-listening-learning-domain-2-image-cards-human-body

Lesson Objectives

Core Vocabulary

involuntary, *adj.* Done without choice or thought
Example: Breathing is an involuntary action. *We breathe without thinking about it.*
Variation(s): none

muscles, *n.* Tissues that enable, *or help*, your body to move
Example: Her muscles flexed as she lifted the weights.
Variation(s): muscle

muscular system, *n.* The body system that helps the body and organs inside the body move
Example: There are three types of muscles in the muscular system.
Variation(s): muscular systems

tendons, *n.* Tough, *or strong*, tissues that connect, *or tie*, muscle to bone
Example: Long-distance runners sometimes tear their tendons from overuse.
Variation(s): tendon

voluntary, *adj.* Done by choice; *doing something you do not have to do.*
Example: His participation in the race was voluntary. *He wanted to participate in the race.*
Variation(s): none

Introducing the Read-Aloud

What Have We Already Learned?

Remind students that Dr. Welbody, the rhyming pediatrician, is teaching them about various systems at work within their bodies. Each system is made up of different organs or parts that dospecial jobs for the human body. The systems are all tied togetherin a network to keep the human body alive and healthy.

Ask students to share what they learned from the previous read-aloud about the skeletal system. You may want to use the model of the skeleton to point out features being discussed. You may prompt discussion with the following questions:

- Can you name some of the bones that make up the skeletal

system and tell me where they are located? (ribs, spine, skull, etc.)

- What would happen if we didn't have a skeleton to support our bodies? (We would be like rag dolls and couldn't stand up.)
- Other than being the body's framework, what else does a skeleton do? (helps with movement of the body; protects important organs)
- What does your skull protect? (brain)
- Can you name some places in your body where joints help you bend? (knees, elbows, hips, shoulders, ankles, wrists, fingers, toes)

As students share, expand their responses using richer and more complex language, including, if possible, any read-aloud vocabulary.

Now, remind students that at the end of the previous read-aloud, Dr. Welbody said that today's lesson was about a system that works with the skeletal system to help us move. Ask students to guess the name of that system. Tell them that today they are going to learn about the muscular system.

Making Predictions About the Read-Aloud

Tell students that everybody has many muscles, but that there is one very important muscle that is necessary for life. If that one muscle were to stop working, they would not be able to live. Ask them to predict the name of that muscle.

Purpose for Listening

Tell students to listen carefully to see if their predictions about the most important muscle are correct.

Presenting the Read-Aloud

Marvelous Moving Muscles

←Show image 3A-1: *Say*: Dr. Welbody, flexing her biceps.
[Point to her bicep.]

[1] [Pause for student responses.]

Hi everyone! It's Dr. Welbody, the rhyming pediatrician, back to talk about the human body. Did you figure out what we're going to talk about this time?[1] That's right! **Muscles!** Your muscles help your body move, so you can walk, breathe, swallow, speak, and do many other things. Together your muscles make up your **muscular system.**[2] *What do your muscles do?*

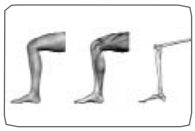
[2] What is a system? (a group of organs working together)

←Show image 3A-2: *Say:* Muscular system. *[Point to the skeleton.]*

[3] Who remembers how many bones we have in our skeleton? (206) Do we have more bones or more muscles in our bodies?

There are 650 muscles in your body.[3] Some muscles are big, like the ones in your legs. Some are small, like the ones in your face. Muscles crisscross the body so you can move in many ways. Muscles move by contracting (or getting shorter) and then relaxing (or getting longer).[4] *Look at the muscles in your arm. First, contract the muscles in your arm. Make your muscles tight. Then, relax the muscles in your arm. What do you see? How do muscles move?*

[4] [Ask students to feel their bicep muscles contract/ shorten as they flex them and then relax/lengthen as they extend their arms.]

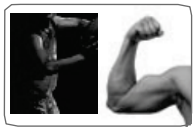


←Show image 3A-3: *Say:* Three views of the knee. *[Point to the tendons.]*

[5] [Pause until all students are engaged.]

Tendons are part of your muscular system. Feel behind your knee.[5] There are some strong rope-like bands under the skin. They are called tendons.[6] Tendons are cords that attach your muscles to your bones. *What are tendons?*

[6] [Have students repeat the word *tendons* with you.]



←Show image 3A-4: *Say:* Arm muscles at work. *[Point to the bicep.]*

The muscles that move your bones are called your skeletal muscles. Skeletal muscles are **voluntary** muscles. *You can move your skeletal muscles whenever you want to.* That is because you control them with your brain by thinking. *What do skeletal muscles do?* Pretend that you are throwing a ball. Your brain tells your arm muscles to move back first and then move forward. At the same time, your brain is telling your hand muscles when to grasp the ball and when to let it go.

[7] [Pause until all students are engaged. Point to the biceps and triceps muscles in the picture as students find their own.]

Two muscles often work together, in a pair, to move bones. Touch the top of your upper arm.[7] That is where your biceps muscle is found. Now touch the underside of your arm. That is where the triceps muscle is located. When you threw that pretend ball just now, the bicep muscles bent your elbows. The triceps straightened your elbows.

←Show image 3A-5: *Say:* Muscles in the hand. *[Point to the hands.]*

The muscles of your hand and arm work together in many ways. *Look at the muscles in your hand and arm.* They help you make tiny, exact movements like picking a crumb up off the table. And they are there for you, too, when you need great strength, like doing a handstand. The most movable part of your hand is your thumb. *Look at your thumb. Move your thumb.* Try wiggling yours. It can move in many different directions, more than any of your other fingers.[8] *The muscles in your hand and arm help you do many things. What do the muscles in your hand and arm help you do?*

[8] What system did you learn about yesterday that works with the muscular system to help your body move? (the skeletal system)

←Show image 3A-6: *Say:* Child smiling widely.[9] ***[Point to her smile.]***

There are many muscles in your face, mostly attached to your skin. Did you know that you need muscles to help you laugh, frown, or even raise your eyebrows? *You can move the muscles in your face whenever you want to. They are voluntary muscles.* All the muscles we've talked about so far are voluntary, meaning you have to decide when to move them.

[9] What do you see in this picture?

Other muscles in your body are **involuntary.** That means that you don't have to think about telling these muscles to move; they do it automatically. Involuntary muscles keep your blood flowing and your food moving through your body. Think about these two actions your body does: kicking a ball and blinking your eyes. Which do you think is voluntary and which is involuntary? Can you tell me why?[10]

[10] [Pause for student responses.]

←Show image 3A-7: *Say:* Heart.[11] ***[Point to the heart.]***

Do you have to tell your heart to beat, or does it work automatically on its own?[12] Your heart is another kind of involuntary muscle. *You do not have to think about moving your heart muscle. Your heart beats automatically.* It is called cardiac muscle. This thick, powerful muscle contracts and relaxes over and over and over again on its own without stopping. It pumps the blood all around your body, once every minute! Your heart is a very important muscle that is necessary for your body to live. *What does your heart muscle do?*

Do you want to know which muscle is the largest muscle in your body? Here's a hint: You are probably sitting on it right now! It is your gluteus maximus, or buttock muscle. You have two of them, one on each side. *What is the largest muscle in your body?*

[11] What is an organ? (a body part that performs a specific function, such as the stomach or kidneys) What organ do you see in this picture?

[12] [Pause for student responses.]

←Show image 3A-8: *Say:* Dr. Welbody's muscular system.
[Point to the muscular system.]

Now, since our time together is coming to a close for today, here is a goodbye rhyme from Dr. Welbody, the rhyming pediatrician (that's me):

I'm glad that I have the muscles.
They help me to have fun,
To jump and kick a soccer ball,
To smile and speak and run.
I'm glad that I have muscles,
And glad that you do, too,
So you can wave goodbye to me
And I can wave to you!

What muscles do you use to jump and kick a soccer ball?
What muscles do you use to smile? And speak?
What muscles do you use to wave goodbye?
Let's say the rhyme together now.

When we meet next time, we'll have a lot to chew on. That's a clue about what system of the body we'll be learning about. *What happens after we chew our food? Where does the food go? What happens to the food?* Can you guess what it is?[13] See you again soon!

[13] [Pause for suggestions.]

Discussing the Read-Aloud

Comprehension Questions

If students have difficulty responding to questions, reread pertinent passages of the read-aloud and/or refer to specific images. If students give one-word answers and/or fail to use read-aloud or domain vocabulary in their responses, acknowledge correct responses by expanding the students' responses using richer and more complexlanguage. Ask students to answer in complete sentences by having them restate the question in their responses.

1. *Literal* What is the name of the important muscle that needs to keep working in order for us to stay alive? (heart) *Listen first. Your heart is a very important muscle that is necessary for your body to live. (p. 21)* **What is the name of the important muscle that needs to keep working in order for us to stay alive?**

2. *Literal* What is the job of the heart, or cardiac, muscle? (It pumps blood all around the body.) *Listen first. Your heart is another kind of involuntary muscle. You do not have to think about moving your heart muscle. Your heart beats automatically. It is called cardiac muscle. This thick, powerful muscle contracts and relaxes over and over and over again on its own without stopping. It pumps the blood all around your body, once every minute! (p. 21)* **What is the job of the heart, or cardiac, muscle?**

3. *Literal* What is the name of the system that includes all the muscles? (muscular system) *Listen first. Together your muscles make up your* ***muscular system.*** *(p. 19)* **What is the name of the system that includes all the muscles?**

4. *Literal* What do muscles help your body do? (move) *Listen first. Your muscles help your body move, so you can walk, breathe, swallow, speak, and do many other things. (p.19)* **What do muscles help your body do?**

5. *Literal* What is the name of the other system that works with the muscular system to help our bodies move? (skeletal system) *Listen first. The muscles that move your bones are called your skeletal muscles. (p. 20)* **What is the name of the other system that works with the muscular system to help our bodies move?**

6. *Literal* Tendons are rope-like bands under the skin. What two things do they join together? (muscles and bones) *Listen first. Tendons are cords that attach your muscles to your bones. (p. 20)* **What two things do they join together?**

7. *Inferential* What do the muscles in your face help you to do? (smile, frown, laugh, raise eyebrows) *Listen first. There are many muscles in your face, mostly attached to your skin. Did you know that you need muscles to help you laugh, frown, or even raise your eyebrows? (p. 21)* **What do the muscles in your face help you to do?**

8. *Evaluative* What is the difference between voluntary and involuntary muscles? (A person must decide to move voluntary muscles, but involuntary muscles work on their own.) *Listen first.*

All the muscles we've talkedabout so far are voluntary, meaning you have to decide when tomove them. Other muscles in your body are ***involuntary.*** *That means that you don't have to think about telling these muscles to move; they do it automatically. (p. 21)*
What is the difference between voluntary and involuntary muscles?

[Please continue to model the *Think Pair Share* process for students, as necessary, and scaffold students in their use of the process.]

I am going to ask a question. I will give you a minute to think about the question, and then I will ask you to turn to your neighbor and discuss the question. Finally, I will call on several of you to share what you discussed with your partner.

9. *Evaluative Think Pair Share:* Beside your heart muscle, which muscles do you think you use the most on a school day? Explain your answers. *You can use this sentence frame to help you: I move my ____ muscles the most on a school day because _____.*
(Answers may vary.)

10. After hearing today's read-aloud and questions and answers, do you have any remaining questions? [If time permits, you may wish to allow for individual, group, or class research of the text and/or other resources to answer these remaining questions.]

4: Chew, Swallow, Squeeze, and Churn

https://www.engageny.org/resource/grade-1-listening-learning-domain-2-supplemental-guide-human-body

Lesson Objectives

Core Vocabulary

digestion, *n.* The bodily process by which food is broken down into a usable form; *or the way the body changes food so it can be used*
Example: The digestion of food takes the body several days to complete. *First, we chew our food. Then, the food moves through our body.*
Variation(s): none

digestive system, *n.* The system that processes energy-giving food in the body*; the system that digests foods*
Example: The digestive system uses special juices to turn solid foods into liquids.
Variation(s): digestivesystems

esophagus, *n.* A muscular tube that connects the mouth to the stomach
Example: He could feel the warm milk move down his esophagus.
Variation(s): esophagi

intestine, *n.* An organ, connected to the stomach, that continues the digestive process; *an organ that helps digest food*
Example: Food passes from your stomach into your small intestine. *Your small intestine digests the food you eat.*
Variation(s): intestines

stomach, *n.* The organ in your body where food goes to be partially digested; *an organ that helps digest food*
Example: Whereas humans only have one stomach, cows have four. *After we eat a lot of food, our stomach is full.*
Variation(s): stomachs

Introducing the Read-Aloud

What Have We Already Learned?

Remind students that Dr. Welbody, the rhyming pediatrician, has been teaching them about various systems at work within their body. Each system is made up of different organs or parts that dospecial jobs for the human body. The systems are all tied togetherin a network to keep the human body alive and healthy.

Ask students to share what they learned so far about the skeletal system and muscular system. You may prompt discussion with the following questions:

- Name some bones that make up the skeletal system. (Answers may vary.)
- What does the skeletal system do for the human body? (provides support as a framework; helps with movement of the body; protects important organs)
- Give an example of a bone that protects an organ. (the skull protects the brain; ribs protect heart and lungs, etc.)
- What makes it possible for you to bend your body in different places? (joints)
- What system works with the skeletal system to help you move your body? (muscular system)
- Tendons are rope-like bands under the skin. What two things do they join together? (muscles and bones)
- Remember, you control voluntary muscles with your brain by thinking. Point to a voluntary muscle and tell me what you can use it to do? (Answers may vary.)
- What is the most important muscle in your body that needs to keep working for you to live? Hint: It's involuntary, meaning it works automatically. (heart)

As students share, expand their responses using richer and more complex language, including, if possible, any read-aloud vocabulary.

Now, remind students that at the end of yesterday's read-aloud, Dr. Welbody gave them a clue about the system they will be learning about today. In the previous read-aloud she said, "We'll have a lot to chew on." Ask them to guess what she meant. Then, affirm that they are going to talk about food and how food travels through their bodies. Explain that today they are going to learn about the digestive system.

It is recommended that you do a quick review of liquids and solids prior to the read-aloud if your students are unfamiliar with those terms.

Making Predictions About the Read-Aloud

Tell students that the process of breaking food down into energy for their bodies is called digestion. Ask students to predict how long it takes their bodies to process, or digest, food.

Purpose for Listening

Tell students to listen carefully to find out if their predictions are correct.

Presenting the Read-Aloud

Chew, Swallow, Squeeze, and Churn

←Show image 4A-1: *Say:* Food.[1] ***[Point to the food.]***

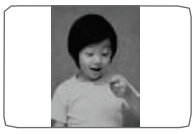
Yum! A chicken burrito! I, Dr. Welbody, the rhyming pediatrician, am feeling hungry! I think a chicken burrito would taste mighty, *or very*, good right about now.

Healthy foods like chicken burritos, homemade pizza, apples, and carrots are extremely, *or very*, important to our bodies. We cannot live without food. Food is the fuel that gives us the energy we need to stay alive, to walk, talk, think, and breathe. The energy from food helps us stay warm. We use its energy even when we are sleeping. Food helps children grow. It helps us heal when we are hurt or sick. *Why do our bodies need food?*

So, how do our bodies process, or digest, *or use*, the food we eat? Your **digestive system** makes all this happen. Let's find out how it works.[2] *What is the digestive system?*

[1] What do you see in the picture? Are any of your favorite foods pictured? [Point to the chicken burrito as you read the first sentence.]

[2] Who remember what a system is? (a group of organs that work together in the body) The digestive system is a group of organs that work together to help your body turn the food you eat into energy.



←Show image 4A-2: *Say:* Child eating a cracker. *[Point to the child.]*

Pretend that you just took a bite out of a cracker. What are you going to do now? That's right, *chew! Pretend you are chewing a cracker.* And while your teeth are crushing and chomping, *or biting*, on the cracker, a liquid, *something wet*, called saliva is helping to soften the food in your mouth and make it even mushier, *or softer.* Does anyone know another name for saliva?[3] It's spit!

[3] [Pause for suggestions.]

←Show image 4A-3: *Say:* Esophagus and stomach. *[Point to the esophagus.]*

Once your food is good and mushy it is time to swallow. *Mushy food is soft. We can swallow our food when it is mushy.* When you do, the chewed-up food goes into a tube that connects your mouth to your **stomach.** This tube is called your **esophagus.**[4] It is about half as long as your arm, about as wide as your thumb. *Look at your arm. How long is half of your arm? Look at your thumb. How wide is your thumb? When you eat, the food passes through your esophagus. But* the food doesn't just slide down it. There are muscles in your esophagus that squeeze the food along, the way you squeeze toothpaste from a tube. From there, the food goes into your stomach.[5] *After the food passes through your esophagus, where does the food go?*

[4] [Point to the esophagus in the illustration.]

[5] How do your muscles help the digestive system?

←Show image 4A-4: *Say:* Stomach. *[Point to the stomach.]*

Do you know where your stomach is? If you point to a spot a little above your belly button and then move your hand a little more to the left, you can feel your rib bones.[6] *Point to your rib bones. Feel your rib bones.* Your stomach is there, partly behind your ribs. Your stomach is like a big bag or balloon. It expands, or gets bigger, as it fills with food. Powerful muscles in your stomach squeeze the food and churn it around*; your stomach muscles mix up the food,* like clothes in a washing machine.[7] At the same time, stomach juices—a watery, *or wet,* mixture made by your body—help turn the mushy food into liquid. Food stays in your stomach for about three or four hours. *Where is your stomach? What does your stomach do?*

***Digestion** is the way your body changes the food you eat. Digestion changes our food into energy so we can stay strong and healthy.* **Digestion** is happening while you work, play, and sleep.[8] *Your body is changing your food into energy while you are doing other things. What is digestion? Why is digestion important?*

Every time you eat a meal, you swallow a little air. As your stomach churns, *or mixes up*, the food, the air makes noises, sometimes called "tummy rumblings." When the air passes, *or comes*, back out through your mouth, sometimes with a loud noise, it is called belching or burping.[9]

[6] [Pause while students find their stomachs.]

[7] Again, how does your muscular system help your digestive system?

[8] Digestion is the process your body uses to turn your food into the things your body needs. Think about what you ate last. Your body might be digesting it right now.

[9] Is it polite to say, "excuse me" when you burp? Well, now you know that burping happens during digestion.

←**Show image 4A-5: *Say:* Small intestine. *[Point to the intestine.]***

The liquid moves from your stomach a little bit at a time into a tube called the small **intestine.**[10] *Your small intestine is an organ that digests the food you eat.* Your small intestine is narrow, *or thin,* but it is very long—around fifteen feet in all. Since you are probably only around four feet tall, how does your intestine, more than three times longer than you are tall, fit inside you?[11] *[Show students approximately how far 15 feet is in the classroom.]* The answer is that your intestine is all coiled (or folded) up inside you, underneath your stomach. Food stays in the small intestine about six hours. *Six hours is about how long we are at school each day. While you are at school, your small intestine is digesting the food you ate for breakfast.*

In the small intestine, all the good things from the liquid food get absorbed by, or taken into, your blood. The blood carries these nutrients and vitamins *(good and healthy parts)* from the liquid food that's been digested around your body so they can give you energy, help you grow, and keep you healthy.

Where is your small intestine? What does your small intestine do?

[10] [Point to the illustration.]

[11] Here's a hint: Think of a jump rope that is not stretched out but that is folded up.

←**Show image 4A-6: *Say:* Small intestine or large intestine. *[Point to the large intestine.]***

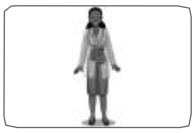
But there are still some bits of food that aren't used up and are left behind in the small intestine. These leftover bits are called waste. *Waste means things that are not needed.* The waste gets pushed into your large intestine. *Your large intestine is another organ that digests the food you eat.* This is a tube like your small intestine, only shorter and wider. *Your large intestine is shorter and wider than your small intestine. [Demonstrate shorter and wider.]* It is curled like an upside-down "U" around your small intestine.[12] *Where is your large intestine? What does your large intestine do?*

[12] [Pause and point to the large intestine in the picture.]

From there, the waste gets pushed out of your bottom when you go to the bathroom.[13] It may take *two days* for food to travel through your whole digestive system.

After the food passes through your small intestine, where does the food go?

[13] The word *bottom* can also have other meanings. It can also refer to the lowest part of something.



←**Show images 4A-7: *Say:* Dr. Welbody's digestive system. *[Point to the digestive system.]***

And that is how digestion works. Here's my little rhyme about the digestive system:

A healthy body needs good food

There really is no question.
Your body gets the things it needs—
Just leave it to digestion!

Let's say the rhyme together now.

The next time we get together, I'll help you find out all about the most important muscle in your body, one that works all the time but never gets tired![14]

[14] Do you know which muscle Dr. Welbody is talking about? (the heart)

Discussing the Read-Aloud

Comprehension Questions

If students have difficulty responding to questions, reread pertinent passages of the read-aloud and/or refer to specific images. If students give one-word answers and/or fail to use read-aloud or domain vocabulary in their responses, acknowledge correct responses by expanding the students' responses using richer and more complexlanguage. Ask students to answer in complete sentences by having them restate the question in their responses.

1. *Literal* How long does it take the body to process, or digest, food? (about two days) *Listen first. It may take two days for food to travel through your whole digestive system. (p. 29)* **How long does it take the body to process, or digest, food?**

2. *Inferential* Why do you need food? (It provides the energy you need to stay alive and to grow) *Listen first. Food is the fuel that gives us the energy we need tostay alive, to walk, talk, think, and breathe. (p. 27)* **Why do you need food?**

3. *Literal* Once you swallow your food, it is squeezed along a tube called the esophagus. What organs have you learned about that help to squeeze the food on its way down? (muscles) *Listen first. There are muscles in your esophagus that squeeze the food along, the way you squeeze toothpaste from a tube. (pp. 28)* **What organs have you learned about that help to squeeze the food on its way down?**

4. *Literal* Muscles also help to turn food from solids into liquids. In what part of your body does this happen? (stomach) *Listen first: Your stomach is like a big bag or balloon. It expands, or gets bigger, as it fills with food. Powerful muscles in your stomach squeeze the food and churn it around; your stomach muscles mix up the food, like clothes in a washing machine. At the same time, stomach juices—a watery mixture made by your body—help turn the mushy food into liquid. (p. 28)*
In what part of your body does this happen?

5. *Inferential* Are the stomach muscles voluntary or involuntary? (involuntary) *Listen first. All the muscles we've talked about so far are voluntary, meaning you have to decide when to move them.*

   Other muscles in your body are ***involuntary.*** *That means that you don't have to think about telling these muscles to move; they do it automatically. Involuntary muscles keep your blood flowing and your food moving through your body. (p. 21)* **Are the stomach muscles voluntary or involuntary?**

6. *Literal* How does food get carried to other parts of your body to provide the energy you need? (through the blood) *Listen first. The blood carries these nutrients and vitamins from the liquid food that's been digested around your body so they can give you energy, help you grow, and keep you healthy. (p. 29)* **How does food get carried to other parts of your body to provide the energy you need?**

7. *Evaluative* [Use Image Cards 1-5 to have students sequence the digestive process: mouth, esophagus, stomach, small intestine, and large intestine.]

[Please continue to model the *Question Pair Share* process for students,as necessary, and scaffold students in their use of the process.]

8. *Evaluative What? Pair Share:* Asking questions after a read-aloud is one way to see how much everyone has learned. In a

moment you are going to ask your neighbor a question about the read-aloud that starts with the word *what.* For example, you could ask, "What is it that makes you burp?" Turn to your neighbor and ask your *what* question. Listen to your neighbor's response. Then your neighbor will ask a new *what* question, and you will get a chance to respond. I will call on several of you to share your questions with the class.

9. After hearing today's read-aloud and questions and answers, do you have any remaining questions? [If time permits, you may wish to allow for individual, group, or class research of the text and/or other resources to answer these questions.]

5: The Body's Superhighway

https://www.engageny.org/resource/grade-1-listening-learning-domain-2-anthology-human-body

Lesson Objectives

Core Vocabulary

blood, *n.* A liquid that circulates, *or moves,* throughout the body, transporting*, or carrying,* nutrients, oxygen, and waste to and from all parts of the body, *through the body*; *a red liquid that moves through the body.*

Example: A little bit of blood broke through the skin when he scraped his knee. *He had red blood on his pants.*
Variation(s): none

blood vessels, *n.* Passageways (arteries, veins, and capillaries) through which blood circulates within the body; *small tubes that carry blood to different parts of the body*
Example: Blood vessels are tubes that carry blood through our bodies. Blood vessels can be as big as jump ropes or smaller than the hairs on your head.
Variation(s): blood vessel

circulatory system, *n.* The body system made up of the heart and blood vessels responsible for moving blood throughout the body; *the body system that moves blood around the body*
Example: The heart is one part of the circulatory system. *The heart and blood vessels move blood through the body.*
Variation(s): circulatory systems

heart, *n.* The muscle responsible for pumping blood through the body
Example: The heart is a muscle that pumps blood through the body. Each person has a heart that keeps him/her alive.
Variation(s): hearts

pulse, *n.* The regular beat of the blood in your arteries as the heart pumps it *(blood)* through your body
Example: You can take your pulse by pressing two fingers against your wrist.
Variation(s): pulses

Introducing the Read-Aloud

What Have We Already Learned?

It is recommended that Dr. Welbody's rhymes about the body systems covered thus far be written on chart paper in advance of this lesson. Tell students that you are going to pause after reading the rhyme about each body system and that you will ask several students to share one fact they have learned. Alternatively, you may

also wish to divide students into three groups and assign each a body system along with the applicable rhyme; have each group share with the class what they already learned.

Here are the rhymes thus far:

Everybody has a body
And I have one, too.
It is grand to understand
The things our bodies do.

Without my hidden skeleton,
I couldn't stand up tall.
And so, "Hurray for bones," I say,
Two hundred six in all!

I'm glad that I have muscles.
They help me to have fun,
To jump and kick a soccer ball,
To smile and speak and run.

I'm glad that I have muscles,
And glad that you do too,
So you can wave hello to me
And I can wave to you!

A healthy body needs good food,
There really is no question.
Your body gets the things it needs –
Just leave it to digestion.

Purpose for Listening

Tell students to listen carefully to hear about another system in their body.

Presenting the Read-Aloud

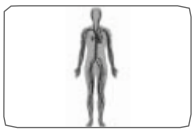
The Body's Superhighway

←Show image 5A-1: *Say:* Dr. Welbody with polka dot bandage. *[Point to her finger.]*

Ouch! Yesterday I cut my finger. Yes, even a pediatrician like me sometimes has little accidents. The fun part is that I got to put on one of these cool polka-dot bandages that I keep in my office!

←Show image 5A-2: *Say:* Skinned knee. *[Point to her knee.]*

Have you ever cut yourself or skinned your knee? When people get a cut or scrape that breaks the skin, it usually bleeds. *When you cut yourself, you can see the **blood** that comes out. Blood is a red liquid that moves through our bodies.* The **blood** that comes out *when you cut yourself* is just a tiny part of all the blood you have in your body, and your body will make more to replace it. *We have a lot of blood in our bodies.* Blood keeps us alive. It travels through the body and carries everything your body needs to live. A grown-up like me has about ten pints of blood. That's about the same amount as twenty glasses of water. *What is blood? What does blood do?*



←Show image 5A-3: *Say:* Circulatory system.[1] *[Point to the circulatory system.]*

[1] What do you see in this picture? What is a system? (a group of organs that work together)

The blood is not just sloshing around inside of you. It moves around through tubes called **blood vessels.** *Blood vessels carry blood through your body.* Some *blood vessels* are big and some are small. A map of the blood vessels in a human body looks like a bunch of tangled spaghetti. But your blood vessels are actually laid out very carefully, like a well-planned system of highways and roads. They carry blood to every single part of you, from the top of your head to the tips of your fingers and toes. *What do blood vessels do?*

Your heart and blood vessels move blood through your body.

They are part of a system called the **circulatory system** that includes your **heart** and blood.[2] *What is the circulatory system?*

[2] You just heard the word *circulatory.* What word do you hear in that word? (circle) *Circulatory system* means a system that moves things around in a circle.

The blood is able to move through your blood vessels because of your heart. *Your heart is a muscle that pumps blood through your body.* Your heart is a muscle about the size of your fist. Put your right hand on the middle of your chest. Now move it a little to

the left.[3] Your heart is underneath there, inside your chest, protected, *or kept safe,* by your rib bones. Your heart is a hard worker! Its job is to pump your blood around your body through your blood vessels. This movement of your blood around your body is called circulation. *What does the heart do?*

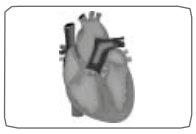
[3] [Model this action and pause until all students are engaged.]

OK, everybody stand up.[4] When I say, "go," run in place right where you are until I say, "stop." Ready, set, go![5]

[4] [Pause, allowing students time to stand.]

[5] [Make sure students run long enough to be able to increase their heart rates.]

Now stop running. Place your hand on your chest. Can you feel your heart pounding in your chest? When you exercise, your heart has to work harder than when you rest, and it is easier to feel it beating.



←Show image 5A-4: *Say:* Diagram of the heart. *[Point to the chambers of the heart.]*

Your heart is hollow[6] on the inside. *Your heart is empty. There is nothing inside of your heart.* It is divided into four parts, like little rooms. They are called chambers.[7] The two top chambers hold blood coming into your heart. The two bottom chambers hold blood going out of your heart. Heart valves, like tiny gates, separate the chambers. They open and close to let the blood in and out of the chambers. *How many chambers are in the heart? What do the heart chambers do? What do heart valves do?*

[6] or empty

[7] [Point to the chambers of the heart on the diagram as you read about them.]

Now, everyone make a fist.[8] In order to do this, you made the muscles of your hand tighten. That is what happens over and over to your heart, without you ever having to think about it. When the heart muscle contracts, or tightens, blood goes out of the chambers. When the heart muscle relaxes, blood flows in.

[8] [Molded for students and pause until all students are engaged.]

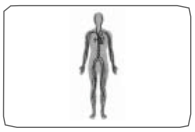
←Show image 5A-5: *Say:* Blood vessels around major organs *[Point to the blood vessels.]*

Your body needs two things to stay alive: oxygen and nutrients. *When we breathe, we take in oxygen.* Oxygen is taken out of the air inside your lungs. *Where does oxygen come from?*

When we eat, we take in nutrients. Nutrients come from the food you eat as it moves through your intestines. *Nutrients keep us healthy and strong. Where do nutrients come from?*

Your blood carries the oxygen and nutrients to all parts of your body so that you can stay alive, move, think, and grow. Your blood also cleanses your body, taking away waste, or things your body does not need. *What does blood carry all over your body? What does blood take away from your body?*

It takes about a minute for your blood to travel from your heart, all around your body, and back to your heart again!



←Show image 5A-6: *Say:* Types of blood vessels. *[Point to the blue and red lines.]*

Blood vessels are tubes that carry blood through your body. Veins, arteries and capillaries are the types of blood vessels found throughout your body.[9] Veins bring blood to the heart. Arteries carry blood away from it. Capillaries are tiny blood vesselsthat connect to your arteries and veins. *Capillaries are very small tubes.* They carry blood to even the smallest parts of the body. *What do veins do? What do arteries do? What do capillaries do?*

[9] The blue lines represent veins; the red lines are arteries. The very fine lines are capillaries.

←Show image 5A-7: *Say:* Doctor listening to child's heart.[10] ***[Point to the stethoscope.]***

It is very important to have a strong, healthy heart. If you came to me for a checkup, I would use my stethoscope to listen to your heartbeat. *The stethoscope helps me to hear your heart.* A healthy heart makes a sound with each beat that sounds like this: lub-dub. The sound comes from the heart as it pumps the blood.

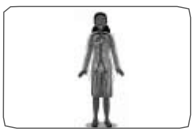
Even without a stethoscope, you can feel your heart working. You can feel your **pulse** in places where there is an artery close to the skin. *You can feel your heart beating as it pumps blood through your body.* Try putting two fingers on the palm side of your wrist, just below your thumb. Press lightly.[11] Can you feel a small beat under your skin? Each beat is caused by the squeezing of your heart. Lub-dub, lub-dub.

[10] Do you know what the doctor has in her ears?

[11] [Demonstrate, and give students a few minutes to try it.]

←Show image 5A-8: *Say:* Child exercising. *[Point to the child.]*

Remember that your heart is the most important muscle in your body. *Your heart pumps blood through your body.* How do we make a muscle strong? By exercising it! That means moving hard and fast. When you dance, play basketball, swim, or jump rope, you are exercising not just your arms and legs, but your heart as well. How can you make your heart strong? Another way to take care of your heart is to eat plenty of fruits and vegetables that are good for you instead of soft drinks, chips, and candy. What is another way to make your heart strong? By exercising and eating healthy foods, you will be helping your heart stay healthy and strong for many years to come.



←Show image 5A-9: *Say:* Dr. Welbody's circulatory system. *[Point to the circulatory system.]*

Now, here's a rhyming cheer for the part of our circulatory system that keeps it all going:

My heart is always working
It's busy night and day
It's pumping while I'm sleeping
And while I work and play—
Let's give a cheer for hearts now,
For hearts: HIP, HIP, HOORAY!
Let's say the rhyme together now.

Next time, we'll learn about the control center of our bodies. That's the *brain.* So don't forget to bring yours along! See you soon!

Discussing the Read-Aloud

Comprehension Questions

If students have difficulty responding to questions, reread pertinent passages of the read-aloud and/or refer to specific images. If students give one-word answers and/or fail to use read-aloud or domain vocabulary in their responses, acknowledge correct responses by expanding the students' responses using richer and more complex language. Ask students to answer in complete sentences by having them restate the question in their responses.

1. *Literal* What does the circulatory system circulate, or move, around the body? (blood) *Listen first. Your heart and blood vessels move blood through your body. They are part of a system called the* ***circulatory system*** *that includes your* ***heart*** *and blood. (p. 34)* **What does the circulatory system circulate, or move, around the body?**
2. *Literal* How does blood travel through the body? (through blood vessels) *Listen first. The blood is not just sloshing around inside of you. It moves around through tubes called* ***blood vessels.*** *(p. 34)* **How does blood travel through the body?**
3. *Literal* What is the name of the muscle that pumps blood into

the blood vessels? (heart) *Listen first. Your heart is a hard worker! Its job is to pump your blood around your body through your blood vessels. (p. 34)* **What is the name of the muscle that pumps blood into the blood vessels?**

4. *Literal* When the doctor puts a stethoscope to your chest, what is s/he listening for? (your heartbeat, the sound of the heart pumping blood- lub, dub, lub dub) *Listen first. If you came to me for a checkup, I would use my stethoscope to listen to your heartbeat. (p. 36)* **When the doctor puts a stethoscope to your chest, what is s/he listening for?**

5. *Inferential* Why is blood important to your body? (It carries nutrients and oxygen all around the body to keep it alive and healthy.) *Listen first.* Your blood carries the oxygen and nutrients to all parts of your body so that you can stay alive, move, think, and grow. *(p. 35)* **Why is blood important to your body?**

6. *Evaluative* Name some ways that you can keep your heart healthy and strong. (eat foods that are good for you; get plenty of exercise) *Listen first. By exercising and eating healthy foods, you will be helping your heart stay healthy and strong for many years to come. (p. 36)* **Name some ways that you can keep your heart healthy and strong.**

[Please continue to model the *Question Pair Share* process for students, as necessary, and scaffold students in their use of the process.]

I am going to ask a question. I will give you a minute to think about the question, and then I will ask you to turn to your neighbor and discuss the question. Finally, I will call on several of you to share what you discussed with your partner.

7. *Evaluative* *Think Pair Share:* Imagine you take your pulse when you first wake up in the morning, after your body has been at rest all night. Then, imagine you take it again at recess after you played a vigorous game of soccer. *How would your pulse feel in the morning? How would your pulse feel after recess?* What difference would you expect from your pulse? (At recess:

stronger, easier to feel, faster, etc.) Would your heart be faster or slower *after recess*? (faster) Why? (The heart has been exercised.)

8. After hearing today's read-aloud and questions and answers, do you have any remaining questions? [If time permits, you may wish to allow for individual, group, or class research of the text and/or other resources to answer these remaining questions.]

6: Control Central: The Brain

https://www.engageny.org/resource/grade-1-listening-learning-domain-2-anthology-human-body

Lesson Objectives

Core Vocabulary

brain, *n.* The command center of the body that controls how you think and move; *the part of the body that helps you think and move and feel*
Example: Without her brain, the girl wouldn't be able to play or do her homework.
Variation(s): brains

nerves, *n.* Thin fibers, *or threads,* that connect your brain to all parts of your body
Example: The tips of your fingers are full of nerves that allow you to feel.
Variation(s): nerve

nervous system, *n.* The system made up of the brain, spine, and nerves that makes it possible for people and animals to sense the world around them. *When you sense something you see, smell, hear, or feel something.*
Example: Your brain and nerves are parts of your nervous system. *Your nervous system helps you to see, smell, hear, taste, and feel.*
Variation(s): nervous systems

Introducing the Read-Aloud

What Have We Already Learned?

Begin by reading or having students recite Dr. Welbody's rhymes that you have up around the classroom. Have students share interesting facts about the skeletal, muscular, digestive, and circulatory systems they have learned thus far.

Tell students that today's read-aloud is about the nervous system. Ask them to brainstorm ways that they use the word *nervous* in everyday speech. For example, one student may be nervous when he takes a test, while another student may be nervous when she goes to an unfamiliar place for the first time.

Next, remind students that many of them learned about their five senses in the Kindergarten domain *The Five Senses*. Briefly review the five senses with students: sight, hearing, taste, touch, and smell. Tell them that their five senses send messages using the nervous system.

Purpose for Listening

Tell students to listen carefully to find out how and where their five senses send the messages.

Presenting the Read-Aloud

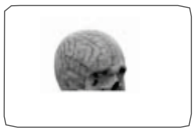
Control Central: The Brain

←**Show image 6A-1:** ***Say:*** **Dr. Welbody.** ***[Point to Dr. Welbody.]***

Hi, students. As your teacher reads to you today, you are listening with your ears. You are seeing a picture of me, Dr. Welbody, with your eyes. Your face may be smiling. *[Ask children to point to their ears, eyes, and face.]*

←**Show image 6A-2:** ***Say:*** **Child smiling**

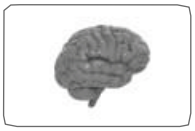
But your ears and eyes could not work if it were not for your **brain.** *[Point to the location of the child's brain in the picture.]* Your mouth and face muscles could not smile. And without your brain working, you could not understand or learn. *Your brain is an organ that helps you think and move and feel.* In fact, your brain controls everything your body does: your thoughts, your movements, your memory, and your five senses. Your brain also controls your moods and feelings—whether you feel happy, sad, or angry, for example. *What does your brain do?*



←**Show image 6A-3:** ***Say:*** **Skull, with brain partly visible inside.** ***[Point to the skull.]***

Your brain is inside your skull.[1] The hard bones of your skull protect the brain's soft tissue. *Where is your brain?*

[1] You heard the word *skull* in a previous lesson. Who remembers what the skull is?



←**Show image 6A-4:** ***Say:*** **Brain.** ***[Point to the brain.]***

Your brain looks like this. It is wrinkly and wet. Your brain is not very big. It could be held in two hands. It weighs about three pounds, about as much as a big dictionary. *Name something that is about the same size as your brain.*

←**Show image 6A-5:** ***Say:*** **Nervous system.** ***[Point to the spinal cord.]***

Your brain tells your muscles what to do and how to move. Messages travel back and forth from your brain to other parts of your

body by moving up and down your spinal cord with lightning speed,[2] *or super fast!* Attached*, or connected,* to the spinal cord are thin fibers, *or threads,* called **nerves.** Your nerves go to every part of your body. Your brain, spine, and nerves make up your **nervous system.**[3] *What three things make up your nervous system?*

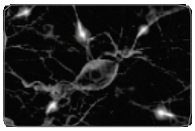
[2] [Point to the spinal cord in the picture.]

[3] You also heard the words *spine* and *system* before. Who remembers what those words mean?

←Show image 6A-6: *Say:* Children playing soccer. *[Point to the soccer player.]*

Let's pretend that you are playing soccer. One of your teammates takes control of the ball from the other team and kicks the ball toward you. When you see the ball flying in your direction, your brain sends a message down your spinal cord to your nerves. Your nerves send a message to your muscles in less than a second to help you move and kick the ball. Goal![4] *Name another message your brain can send.*

[4] What kind of muscles would you be using here—voluntary or involuntary?



←Show image 6A-7: *Say:* Bundles of neurons. *[Point to the neurons.]*

Cells are the smallest parts in our bodies. Your brain is made of as many as a billion cells.[5] The cells in your brain send millions of messages every single second to each other and to the rest of your body. The cells send messages back and forth through branches that connect one cell to another. Different parts of your body receive*, or get,* the messages. Your brain sends messages even while you are asleep to help you breathe and dream. *What messages does your brain send at night when you are asleep?*

[5] A billion is a really, really big number that means that you have many, many cells.

←Show image 6A-8: *Say:* Sense receptors.

Your brain gets messages about the world from your five senses, through organs called sense receptors. *Sense receptors send messages to the brain.* Here are the sense receptors and what they control:[6]

Eyes: sight
[Point to your eyes.]

Ears: hearing
[Point to your ears.]

Skin: touch
[Point to your skin.]

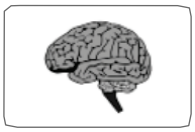
Mouth and tongue: taste
[Point to your mouth and tongue.]

[6] [Point to each one in the picture as you name them.]

Nose: smell

[Point to your nose.]

When you watch a cloud changing shape in the sky, hear a fire truck zooming by, lick an ice cream cone, pet a kitty's soft fur, or smell cookies baking, your senses and your brain are working together. *What are the five senses? What organs do we use to feel each of the five senses? [Invite students to point to each organ as they answer the question.]*

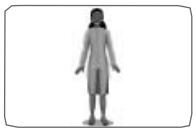


←Show image 6A-9: *Say:* Diagram of the brain. *[Point to the green cerebrum, the yellow cerebellum, and the blue brain stem.]*

The brain is an organ that helps us think and move and feel. Our brains tell our muscles what to do. There are three parts to our brains.[7] They are the cerebrum, the cerebellum, and the brain stem. Each part has a different job to do. Your cerebrum, at the top of your head, is the biggest part of your brain. It controls things like seeing, hearing, thinking, speaking, remembering, and moving. *What does the cerebrum control?* Your cerebellum, at the back of your head, controls balance and coordination. *Your cerebellum helps to keep you steady so you don't fall down.* Stand up and try to balance on one foot without holding on to anything.[8] Can you do this for a long time? Your cerebellum is helping you. *Your cerebellum also helps you to move different parts of your body at the same time.* It helps you move different muscles together in coordination, to do things like catch a baseball, dance, or write. *What does the cerebellum control?* Your brain stem connects your brain to your spinal cord. It controls things your body does without you having to think about them, like breathing and the beating of your heart. *What does the brain stem control?*

[7] [Point to each part in the diagram as you talk about it: cerebrum, green; cerebellum, yellow; brain stem, blue.] *Have the students repeat the names of the different parts.*

[8] [Pause, allowing students time to stand as you model for them.]



←Show image 6A-10: *Say:* Dr. Welbody's nervous system. *[Point to the child.]*

Now, aren't you glad to have that very important organ called a brain? Here's a rhyme about it that we can all learn:

Without a brain
Where would I be?
I could not move or think or see,
Or write my name or count to three,
In fact I would just not be me
Without my trusty brain!
In sun or wind or rain,
I'm glad I have a brain!

Let's say the rhyme together now.

The next time we meet, we're going to talk about some icky things. They are everywhere around us, and they can make us really sick. *They are harmful.*

They're called germs. But we will also learn about some very smart and famous germ-fighters who figured out ways to zap, *or kill,* those nasty germs. Tune in next time to find out how these germ-blasting heroes have made life safer for you and me.

Discussing the Read-Aloud

Comprehension Question

1. *Literal Your five senses send messages to an organ in your body. Name the organ.* (the brain) *Listen first. Your brain gets messages about the world from your five senses, through organs called sense receptors. (p. 41)* **To which organ of your body do your five senses send messages?**

2. *Literal* How do the five senses send messages to the brain? (through nerves *or sense receptors*[2]) *Listen first. Your brain gets messages about the world from your five senses, through organs called sense receptors. (p. 41)* **How do the five senses send messages to the brain?**

3. *Literal* What is the name of the body system that includes nerves and the brain? (nervous system) *Listen first. Your brain, spine, and nerves make up your* ***nervous system.*** *(p. 41)* **What is the name of the body system that includes nerves and the brain?**

4. *Inferential* In order for you to understand the read-alouds, which of your five senses must send nerve messages to your brain? (sight and hearing) *Listen first. Here are the sense receptors and what they control:*
   Eyes: sight
   Ears: hearing
   Skin: touch

[2] The answer was edited to align with the text.

Mouth and tongue: taste
Nose: smell

(p. 41) **In order for you to understand the read-alouds, which of your five senses must send nerve messages to your brain?**

5. *Evaluative* Why is your brain called your control center? (it controls everything that you do) *Listen first. In fact, your brain controls everything your body does: your thoughts, your movements, your memory, and your five senses. (p. 40)* **Why is your brain called your control center?**

6. *Evaluative* Why is it a good idea to wear a helmet when you ride a bike? (protects your skull and brain) *Listen first. Your brain controls everything your body does: your thoughts, your movements, your memory, and your five senses. Your brain is inside your skull. The hard bones of your skull protect the brain's soft tissue. (p. 40)* **Why is it a good idea to wear a helmet when you ride a bike?**

[Please continue to model the *Question Pair Share* process for students, as necessary, and scaffold students in their use of the process.]

I am going to ask a question. I will give you a minute to think about the question, and then I will ask you to turn to your neighbor and discuss the question. Finally, I will call on several of you to share what you discussed with your partner.

7. *Evaluative* *What? Pair Share:* Asking questions after a read-aloud is one way to see how much everyone has learned. Think of a question you can ask your neighbor about the read-aloud that starts with the word *what.* For example, you could ask, "What did you learn about in today's read-aloud?" Turn to your neighbor and ask your *what* question. Listen to your neighbor's response. Then your neighbor will ask a new *what* question, and you will get a chance to respond. I will call on several of you to share your questions with the class.

8. After hearing today's read-aloud and questions and answers, do you have any remaining questions? [If time permits, you may wish to allow for individual, group, or class research of the text and/or other resources to answer these remaining questions.]

7: Dr. Welbody's Heroes

https://www.engageny.org/resource/grade-1-listening-learning-domain-2-anthology-human-body

Lesson Objectives

Core Vocabulary

diseases, *n.* Illnesses*, sicknesses*
Example: Scientists work hard to cure the diseases that make people sick.
Variation(s): illness sickness

germs, *n.* Bacteria and viruses that are harmful; *very, very small living beings that cause sickness*
Example: Washing your hands before meals helps to wash away germs.
Variation(s): germ

immunities, *n.* Resistances or defenses *(protection)* against diseases
Example: Getting vaccinations helps our bodies build immunities. *Immunities protect us from diseases.*
Variation(s): immunity

pasteurization, *n.* The process of heating and cooling something to kill the bacteria *(germs)* in it
Example: Before you can buy milk or cheese in the supermarket, it must go through a process of pasteurization. *Pasteurization kills the germs that can make us sick.*
Variation(s): none

vaccines, *n.* Dead or weak forms of a disease that allow the body to defend itself from that disease; *shots you get to help you stay healthy*
Example: Vaccines have helped to stop the spread of many diseases around the world. *Vaccines are shots. We get our vaccines regularly to help us stay healthy.*
Variation(s): vaccine

Introducing the Read-Aloud

What Have We Already Learned?

Ask students if they have ever heard the word *vaccination.* Tell them that a vaccination is the type of shot that is given to healthy people in the absence of disease; it helps prevent diseases like measles, mumps, and chicken pox. (You may wish to tell students how these diseases manifested themselves in the past.)

Purpose for Listening

Tell students to listen carefully to learn how vaccinations work to help prevent, or stop, diseases.

Presenting the Read-Aloud

Dr. Welbody's Heroes

←Show image 7A-1: *Say:* Dr. Welbody's heroes. *[Point to Jenner and Pasteur.]*

Did you know that doctors have heroes? *Heroes are people who have done important things. Heroes do things that help people.* I'm going to tell you about two of *my* heroes, both brave germ-fighters. Their names are Edward Jenner and Louis Pasteur. Jenner was a doctor. Pasteur was a scientist. Both lived long ago. Their work made the world a safer place for all of us. *What did Jenner and Pasteur fight?*

[1] What do you see in this picture?

←Show image 7A-2: *Say:* Germs.[1] *[Point to the microscope slide.]*

Germs are all around us. *Germs are very, very small.* These tiny living things are so small that you can see them only by looking through a special type of instrument called a microscope. *What are germs?*

But even though you cannot see them, germs are everywhere—in the air we breathe, in the water we drink, in the food we eat, and on our skin. *Where are germs?*

[2] What system in the body includes the intestines? (the digestive system)

Most of the time germs do not hurt us. Some germs even help us, like the ones in our intestines that kill off harmful, *or dangerous,* germs and help us digest our food.[2]

But other germs can make us sick. They get into our bodies in different ways. Some creep, *or sneak,* in through insect bites or cuts in our skin. Others float in when someone sneezes nearby. Still others come from food that is poorly cleaned, *or dirty, or* undercooked. *How do germs get into our bodies?*

We have natural **immunities** in our bodies. That means our bodies have ways of fighting off germs on their own. But sometimes, this is not enough. *How do we fight germs?*

←Show image 7A-3: *Say:* Child getting a shot. *[Point to the child.]*

That is why doctors and scientists are always working to find new ways to fight sicknesses, also called **diseases.** One very important

way they fight diseases is by giving people medicines called **vaccines.** *Vaccines are shots.* Vaccines give you immunity. That means they keep bad germs from harming you in the first place, before you getsick. *Why do we get vaccines? Do you remember getting a vaccine? Do you remember for what disease?* Doctors give vaccines by vaccinating people. That usually means giving a child or grown-up a shot. Many people don't like getting shots because the needle stings a bit. Sometimes they cry. But vaccinations give us immunity to, or protect us from, veryterrible and harmful diseases like measles, mumps, flu, smallpox, and polio—diseases that can make people very sick or even causethem to die.[3] *How do vaccinations, or shots, help us?*

[3] What do doctors give people to protect them from harmful diseases?

←Show image 7A-4: *Say:* Smallpox hospital.[4] ***[Point to the hospital.]***

[4] This is the way a hospital looked long ago.

Long ago, people did not know about germs. They did not understand what made people sick. They did not know how important it is to wash your hands, to eat clean food, and to drink clean water. *How can we protect ourselves from getting diseases?* They did not know how to protect themselves from getting bad germs in their bodies. Sometimes thousands of people at a time would die from a disease as germs *spread*, *or moved,* quickly from one person to another. *Why did so many people die of disease long ago?*

←Show image 7A-5: *Say:* Portrait of Edward Jenner. *[Point to Jenner.]*

About two hundred years ago, an English doctor discovered something amazing*, or surprising*. *His name was Edward Jenner.* He discovered, *or found,* a way to keep people from getting one of the most terrible diseases in the world, a disease called smallpox. Edward Jenner, one of my heroes, invented the first vaccine. *What did Edward Jenner discover or find?*

←Show image 7A-6: *Say:* Dairy farm. *[Point to the cows.]*

[5] like the one shown in the picture

Dr. Jenner was living in a country village*, or town,* in England. There were many farms all around.[5] He knew what the farmers in his village knew: people who milked cows sometimes got a disease called cowpox. The disease made blisters, *or bubbles,* on their hands, but it was not a serious, *or dangerous,* disease. People got over it *(got better)* quickly. Dr. Jenner also noticed that people who got cowpox almost never came down with smallpox, a much worse disease that often killed people or left horrible scars, *or marks,* on their skin. *What did Dr. Jenner notice?* He thought that cowpox might give people protection from getting smallpox.

←**Show image 7A-7:** ***Say:*** **Early smallpox inoculation.** ***[Point to Jenner and the boy.]***

After a lot of thinking and studying, Dr. Jenner decided to test, *or try out,* his idea. He decided to give a healthy boy a small amount of the cowpox germs. The boy got sick with cowpox, just as Dr. Jenner thought he would. Then after the boy got better, Jenner gave the boy a small amount of the smallpox germs. Just as Jenner hoped, the boy did *not* get smallpox.[6] *Why did Dr. Jenner give the boy a small amount of the cowpox germs?*

[6] Dr. Jenner's practices would not be used today; doctors wouldn't intentionally give healthy people germs, even if it was to test a new way of preventing disease.

Dr. Edward Jenner, this brave germ-fighter, created, *or made,* the first vaccine in the whole world! *What did Dr. Jenner create or make?*

From then on, people were vaccinated with cowpox so that they would have immunity to smallpox later on. *How did Dr. Jenner get rid of the smallpox germs?* Many years later, because the smallpox vaccine was being used all around the world, smallpox disappeared. *Why did smallpox disappear?*

←**Show image 7A-8:** ***Say:*** **Edward Jenner.** ***[Point to Jenner.]***

But Dr. Jenner did not understand exactly how the vaccination had worked. It was up to other doctors and scientists to find out. Another germ-fighter, and another one of my heroes, is Louis Pasteur.

←**Show image 7A-9:** ***Say:*** **Louis Pasteur.** ***[Point to Pasteur.]***

Louis Pasteur was born in France a year after Dr. Jenner died. As a boy, he worked very hard in school and was very curious, always asking a lot of questions. When he grew up, he became a science professor, teaching at a university. He was also a medical researcher, someone who tries to find out what causes diseases and how they can be cured. *What kinds of jobs did Pasteur have?*

Using a microscope, Pasteur saw that liquids, like milk and fruit juice, contain tiny living things called germs. Some of these germs caused the milk or juice to spoil, or go bad. Pasteur discovered that he could kill the harmful germs by heating the liquid to a high temperature. Heating liquids this way to get rid of germs became known as **pasteurization.**[7] *How did Pasteur kill germs?*

[7] Why was the name pasteurization given to this process?

←**Show image 7A-10:** ***Say:*** **Milk.** ***[Point to the glass of milk.]***

Today, because of Pasteur's discovery, the milk we drink—as well as some other foods—are pasteurized, *or heated to kill*

germs, to make them safe before we buy them. *Pasteurization kills the germs that can make us sick. What is pasteurization?*

Just as important, Pasteur's work on pasteurization convinced, *or proved to,* other doctors and scientists that germs are real and may cause disease. People began to realize how important it is to keep harmful germs out of our food and water. *Why is it important to keep germs out of our food and water?*

[8] Dr. Pasteur helped people in other ways. Listen to find out how he helped a young boy who became sick with another disease.

←Show image 7A-11: *Say:* Additional work by Dr. Pasteur[8] *[Point to.]*

But Pasteur did not stop there. He continued, *or kept doing,* Jenner's work with vaccines, working to discover how to prevent, *or stop,* many more diseases. One of the vaccines he developed, *or made,* fought rabies, a very dangerous disease that often kills humans, *people*. Pasteur had been working on the rabies vaccine for quite a while when a nine-year old boy was badly bitten by a dog. The dog was carrying rabies, *a disease*, and Dr. Pasteur thought that his new vaccine would help the boy. Dr. Pasteur's vaccine worked and he was hailed as, *or called,* a hero! He led the way for other scientists to make vaccines for many other diseases. *What did Dr. Pasteur discover? Why was Dr. Pasteur called a hero?*

←Show image 7A-12: *Say:* Science researchers. *[Point to the scientist.]*

Today, once you are vaccinated against a disease, you become immune to it and no longer have to be afraid of catching it. There are still diseases, like malaria and cancer, for which scientists have not yet found the right vaccine. But they are working hard at it. New vaccines will be discovered by other germ-fighters. If you study medicine or science and become a researcher, that germ-fighter could even be you! *Do we have a vaccine for every disease?*

←Show image 7A-13: *Say:* Dr. Welbody's heroes. *[Point to Jenner and Pasteur.]*

So if you are a scientist
You'll discover something new,
And you could be a germ-fighter
Who is a hero, too!

Let's say the rhyme together now.

Discussing the Read-Aloud

Comprehension *Questions*

1. *Literal* What are germs? (tiny living things found everywhere—in the air, water, food, etc.) *Listen first. Germs are very, very small. These tiny living things are so small that you can see them only by looking through a special type of instrument called a microscope. But even though you cannot see them, germs are everywhere—in the air we breathe, in the water we drink, in the food we eat, and on our skin. (p. 46)* **What are germs?**

2. *Inferential* Some germs are good, but others make you sick. How do they get into your bodies? (through cuts in your skin, insect bites, unclean or undercooked food, through the air when someone sneezes) *Listen first. Some creep in through insect bites or cuts in our skin. Others float in when someone sneezes nearby. Still others come from food that is poorly cleaned or undercooked. (p. 46)* **How do germs get into your bodies?**

3. *Literal* Healthy bodies are able to fight many germs on their own because of natural immunities. What is another way to give the body immunities to fight germs? (vaccines or vaccination) *Listen first. One very important way they fight diseases is by giving people medicines called* ***vaccines.*** *Vaccines are shots. Vaccines give you immunity. That means they keep bad germs from harming you in the first place, before you get sick. (p. 46)* **What is another way to give the body immunities to fight germs?**

4. *Literal* What is the name of the man who created the first vaccine? (Edward Jenner) *Listen first. Dr. Edward Jenner, this brave germ-fighter, created the first vaccine in the whole world! (p. 48)* **What is the name of the man who created the first vaccine?**

5. *Inferential* Describe how Dr. Jenner made his discovery. (He infected a boy with cowpox, making him slightly sick. Later, after that boy was well, he infected him with smallpox. Just as Dr. Jenner suspected, the body did not get sick with smallpox. The first cowpox vaccine had given his body immunities

against the smallpox.) *Listen first. He decided to give a healthy boy a small amount of the cowpox germs. The boy got sick with cowpox, just as Dr. Jenner thought he would. Then after the boy got better, Jenner gave the boy a small amount of the smallpox germs. Just as Jenner hoped, the boy did not get smallpox. (p. 48)* **Describe how Dr. Jenner made his discovery.**

6. *Evaluative* If Dr. Jenner had asked you to help him with his experiment, would you have accepted, knowing that you might get sick? (Answers may vary.) *Listen first. He decided to give a healthy boy a small amount of the cowpox germs. The boy got sick with cowpox, just as Dr. Jenner thought he would. (p. 48)* **If Dr. Jenner had asked you to help him with his experiment, would you have accepted, knowing that you might get sick?**

7. *Literal* Louis Pasteur continued Edward Jenner's work with vaccines. What disease was he fighting when he gave his vaccine to a boy with a dog bite? (rabies) *Listen first. Pasteur had been working on the rabies vaccine for quite a while when a nine-year-old boy was badly bitten by a dog. The dog was carrying rabies, a disease, and Dr. Pasteur thought that his new vaccine would help the boy. Dr. Pasteur's vaccine worked and he was hailed as, or called, a hero! (p. 49)* **What disease was he fighting when he gave his vaccine to a boy with a dog bite?**

8. *Literal* What other important discovery did Pasteur make? (that germs could be killed through a process known as pasteurization, where liquids are heated to a high temperature) *Listen first. Pasteur discovered that he could kill the harmful germs by heating the liquid to a high temperature. Heating liquids this way to get rid of germs became known as* ***pasteurization.*** *(p. 48)* **What other important discovery did Pasteur make?**

9. *Evaluative* How is this process of pasteurization important to your life? (It kills germs in milk and juices, making them safer to drink and preventing disease.) *Listen first. Today, because of Pasteur's discovery, the milk we drink—as well as some other foods—are pasteurized to make them safe before we buy them. (p. 48)* **How is this process of pasteurization important to your life?**

[Please continue to model the *Think Pair Share* process for students, as necessary, and scaffold students in their use of the process.]

I am going to ask two questions. I will give you a minute to think about the questions, and then I will ask you to turn to your neighbor and discuss the questions. Finally, I will call on several of you to share what you discussed with your partner.

10. *Evaluative Think Pair Share:* In what ways were Edward Jenner and Louis Pasteur similar? In what ways were they different? You can use these sentence frames to help you: Jenner and Pasteur were similar because they both _____. Jenner and Pasteur were different because they both _____.

11. After hearing today's read-aloud and questions and answers, do you have any remaining questions? [If time permits, you may wish to allow for individual, group, or class research of the text and/or other resources to answer these remaining questions.]

8: Five Keys to Health

https://www.engageny.org/resource/grade-1-listening-learning-domain-2-anthology-human-body

Lesson Objectives

Core Vocabulary

exercising, *v.* Participating in activity that uses physical effort, carried out especially to sustain or improve health and fitness; *doing physical activity like running or swimming*
Example: The children are exercising on the playground. *They are running and jumping and playing games.*
Variation(s): exercise, exercises, exercised

healthy, *adj.* Strong and well; *not sick*
Example: To stay healthy, Mimi gets plenty of sleep every night.
Variation(s): none

nutritious, *adj.* Full of vitamins and nutrients to keep you healthy
Example: Every day, Luke ate a nutritious lunch with fruits and vegetables.
Variation(s): none

Introducing the Read-Aloud

Brainstorming Links

Tell students that the name of today's read-aloud is "Five Keys to Health." Explain that the term *key* here means important and refers to habits that support healthy living. Remind them that a healthy body is one that is strong and well. Then ask them what they have already learned about staying healthy. Tell them to try to think of five different ways to stay healthy and record their responses on a piece of chart paper, a chalkboard, or a whiteboard. Remember to repeat and expand upon each response using richer and more complex vocabulary, including, if possible, any read-aloud vocabulary.

Purpose for Listening

Tell students to listen carefully to see if their ideas for healthy living are the same ones that Dr. Welbody talks about in the read-aloud.

Presenting the Read-Aloud

Five Keys to Health

←**Show image 8A-1:** ***Say:*** **Dr. Welbody.** ***[Point to Dr. Welbody.]***

Hi, every*body*—and I do mean *body.* It's your old friend, Doctor Welbody. We've been learning a lot about the human body. Now I'm back to talk about how you can take good care of yours. Remember that there is only one you. That makes you special. You can take good care of your body by giving it certain things it needsto keep it **healthy.**[1] So,

Here are five things to do
To take good care of special you:

Let's say the rhyme together now.

[1] *Healthy* means strong and well.

←**Show image 8A-2:** ***Say:*** **Collage of healthy foods.** ***[Point to the foods.]***

1) EAT WELL. Your body needs lots of energy to keep it going. You need energy to work and play. You need energy to grow.

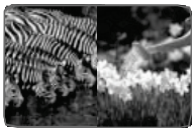
Energy comes from food. Food is the fuel your body runs on, just like a car runs on gas. But some foods are much better for you than others. The best foods to keep you going and growing are **nutritious** foods. They have lots of nutrients, such as protein and vitamins that help keep you well. Nutritious foods include fruits, vegetables, whole wheat bread, brown rice, nuts, fish, and chicken. *Eating nutritious foods helps to keep us healthy. What are some nutritious foods?*

←**Show image 8A-3:** ***Say:*** **Junk foods.**[2] ***[Point to the junk food.]***

What about sweet, sugary foods like candy or cookies? *Candy and cookies are not nutritious foods.* They may taste good and give you some quick energy, but it wears offfast, leaving you feeling weak and hungry again. These foods areonly good to eat once in a long while as a special treat. Eatingthese foods regularly, *or often,* can make you gain weight and give you cavities, or small holes, in your teeth. Fatty foods like bacon, French fries, and chips are not very nutritious either. They canmake you gain weight and slow you down. *What are some foods that are* ***not*** *nutritious? What happens when we eat foods that are* ***not*** *nutritious?*

[2] Look at this picture and tell me how these foods are different from the ones you saw in the last picture.

By eating nutritious foods, you'll be able to think better, jump higher, run faster, and grow stronger. *What happens when we eat foods that are nutritious?*



←Show image 8A-4: *Say:* Water for plants and animals. *[Point to the zebras and plants.]*

Part of eating well means knowing what to drink. *Drinking water helps to keep us healthy.* Do you have some plants at home or in your classroom that need to be watered? Every plant and animal needs water. You do, too!

←Show image 8A-5: *Say:* Child drinking water. *[Point to the child.]*

Much of your body is made up of water. You have water in your muscles and around your brain. Your spit (saliva), sweat, urine, and blood are mostly made of water. *Where do we have water in our bodies?*

Because water is so important to your body, make sure to drink plenty of water every day. *Why do we have to drink water every day?*

←Show image 8A-6: *Say:* Children exercising. *[Point to the children.]*

2) EXERCISE. Your body is made for moving—for running and jumping, pushing and pulling, dancing and diving, throwing and catching, leaping and skipping. Participating in an activity in which you are moving your body to keep it healthy and fit is called **exercising.** *Exercising means moving our bodies. When we do physical activities, like running or swimming, we are exercising. Exercising helps to keep us healthy.* Exercising helps your bones stay strong. It makes your muscles bigger. It makes your lungs and heart stronger. It helps you fight germs, and it can help to put you in a good mood. *Why is it important to move your body, or exercise?*

You can exercise by hitting a baseball, kicking a soccer ball, jumping rope, dancing, climbing a tree, rowing a boat, skating, or doing many other activities. Just choose something that's fun for you and get moving every day! *What kind of exercise do you like to do?*

←Show image 8A-7: *Say:* Child sleeping. *[Point to the child.]*

3) SLEEP. After you have spent a day at work and play, you feel tired. That is a sign that you need to recharge, *or get more energy for,*

your body. How can you do this? By going to sleep! *Sleep helps to keep us healthy.* Sleep rests your body and helps clear your mind for the next day. If you don't get enough sleep, you may feel grouchy, *or in a bad mood*, and your brain won't work as well. Children need between ten and twelve hours of sleep every night. That means that if you have to get up at seven o'clock in the morning to get ready for school, you should be in bed sometime between seven and nine o'clock at night. A well-rested body will stay healthier, too.[3] *Why is it important to sleep?*

[3] [Before proceeding, ask students to name Dr. Welbody's first three keys to health thus far.]

←Show image 8A-8: *Say:* Child in a bubble bath. *[Point to the child.]*

4) KEEP CLEAN. Washing with soap and water will get rid of germs that could make you sick. *Washing with soap and water helps to keep us healthy.* So jump into that bubble bath shower, and scrub. Don't forget to wash your hair with shampoo, too. You will look, smell, and feel good! *Why is it important to wash with soap and water?*

←Show image 8A-9: *Say:* Child washing hands. *[Point to the hands.]*

Wash your hands often during the day—before you eat, after you go to the bathroom, and whenever they look dirty. When your fingernails look dirty, you should scrub underneath them with a brush. *When should you wash your hands?*

Washing your hands often is a great way to wash germs down the drain. *Why is it important to wash your hands?*

←Show image 8A-10: *Say:* Child brushing teeth. *[Point to the child.]*

And don't forget to brush, brush, brush your teeth at least twice a day.[4] Use dental floss in between your teeth. This washes away the germs that cause cavities. Then you will have a bright, clean smile that says, "I take good care of my body!" *Why is it important to brush and floss your teeth each day?*

[4] *Brush* here means to clean your teeth. The word *brush* is also the word used to refer to the thing you use to brush your teeth (a tooth brush) or paint a picture (a paint brush).

←Show image 8A-11: *Say:* Child at the doctor. *[Point to the doctor.]*

5) HAVE CHECKUPS. Germs are all around us. They are on plants and animals, in food and in water. Most of the time germs don't harm us, but what if you wake up one morning with a headache, a fever, and a sore throat? Uh-oh! Some germs have made

[5] Does anybody remember what the body's natural ways of fighting germs are called?

you sick! Since your body has natural ways to fight most germs, you will probably feel better in a few days.[5] If not, you should go to see a doctor like me who can give you medicine to help you get well.

Even when you're feeling terrific, it is important to have regular checkups with a pediatrician or doctor that takes care of children, at least once a year. *Going to the doctor helps to keep us healthy.* Your doctor will make sure you are healthy and growing. He or she will also help keep you from getting diseases by giving you vaccinations or other medicines. I always look forward to seeing how much my patients have grown when they come in for their wellness checkups after each birthday. *Why is it important to go to your doctor each year?*

←**Show image 8A-12:** ***Say:*** **Dr. Welbody.** ***[Point to Dr. Welbody.]***

There you have it: Dr. Welbody's five fun and easy ways to take care of your body. I hope you'll try them all. And now, before I go, let's give a healthy body cheer!

YES, YES, YES to veggies,
To fruit and chicken, too!
No to too much candy—
'Cause it's not good for you!
YES, YES, YES to washing,
To exercise and rest!
'Cause strong and healthy bodies
Are bodies at their best! YES!

Let's say the rhyme together now.

Discussing the Read-Aloud

Comprehension Questions

1. *Literal* Did Dr. Welbody's five keys to health match the ones you named before hearing the read-aloud? (Answers may vary.) See if you can list all of Dr. Welbody's five keys to health. (eat well, exercise, sleep, keep clean, and have checkups.) *Listen first. 1) Eat well. 2) Exercise. 3) Sleep. 4) Keep clean. 5) Have checkups. (pp. 54–57)* **Did Dr. Welbody's five keys to health match the ones you named before hearing the read-aloud?**

2. *Inferential* If you eat a bowl of sweet cereal for breakfast, a milk shake for lunch, and French Fries with ketchup for dinner, are

you eating nutritious meals? (no) Why not? (Nutritious meals consist of foods that provide your body with good nutrients; the meals suggested are full of fats and sugars.) *Listen first. The best foods to keep you going and growing are* ***nutritious*** *foods. They have lots of nutrients, such as proteinand vitamins that help keep you well. Nutritious foods include fruits, vegetables, whole wheat bread, brown rice, nuts, fish, andchicken. (p. 54) What about sweet, sugary foods like candy or cookies? Candy and cookies are not nutritious foods. They may taste good and give you some quick energy, but it wears offfast, leaving you feeling weak and hungry again. These foods areonly good to eat once in a long while as a special treat. Eating these foods regularly, or often, can make you gain weight and give you cavities, or small holes, in your teeth. Fatty foods like bacon, French fries, and chips are not very nutritious either. They can make you gain weight and slow you down. (p. 54)* **If you eat a bowl of sweet cereal for breakfast, a milk shake for lunch, and French Fries with ketchup for dinner, are you eating nutritious meals? Why not?**

3. *Inferential* What are some things that you can do to help keep your body clean? (wash hands often with soap and water, bathe regularly, keep fingernails clean, brush teeth) *Listen first. Washing with soap and water will get rid of germs that could make you sick. Washing with soap and water helps to keep us healthy. So jump into that bubble bath and scrub. Don't forget to wash your hair with shampoo, too. You will look, smell, and feel good! (p. 56) Wash your hands often during the day—before you eat, after you go to the bathroom, and whenever they look dirty. When your fingernails look dirty, you should scrub underneath them with a brush. (p. 56) And don't forget to brush, brush, brush your teeth at least twice a day.*[4] *Use dental floss in between your teeth. (p. 56)* **What are some things that you can do to help keep your body clean?**

4. *Inferential* Why is it important to see a pediatrician like Dr. Welbody? (to make sure you are growing properly; to get medicines when you are sick; to have the vaccinations that you need to keep you healthy) *Listen first. It is important to have regular checkups with a pediatrician at least once a year. Your doctor will make sure you are healthy and growing. He or she will also help keep you from getting diseases by giving you vaccinations or other medicines. (pp. 56–57)* **Why is it important to see a pediatrician like Dr. Welbody?**

5. *Inferential* What are some ways that you exercise your body? (Answers may vary.) *Listen first. You can exercise by hitting a baseball, kicking a soccer ball, jumping rope, dancing, climbing a tree, rowing a boat, skating, or doing many other activities. (p. 55)* **What are some ways that you exercise your body?**

[Please continue to model the *Think Pair Share* process for students, as necessary, and scaffold students in their use of the process.]

I am going to ask two questions. I will give you a minute to think about the questions, and then I will ask you to turn to your neighbor and discuss the questions. Finally, I will call on several of you to share what you discussed with your partner.

6. *Evaluative* *Think Pair Share: Daily habits are things we do every day. Eating, sleeping, and brushing our teeth are examples of daily habits because we do them every day. What are some things you do every day? What are some daily habits that are good for you, or healthy? What are some daily habits that are not good for you, or not healthy?*[3] What are some of your daily habits that you could change to be a healthier person? (Answers may vary.)

7. After hearing today's read-aloud and questions and answers, do you have any remaining questions? [If time permits, you may wish to allow for individual, group, or class research of the text and/or other resources to answer these remaining questions.]

[3] A definition of "daily habits" and some preliminary questions were added to support students' understanding of the question that was provided in the original materials.

9: The Pyramid Pantry

https://www.engageny.org/resource/grade-1-listening-learning-domain-2-anthology-human-body

Lesson Objectives

Core Vocabulary

balanced diet, *n.* A diet that includes a variety of foods from each of the six food groups—grains, fruits, vegetables, milk, meat and beans, and fats; *eating different kinds of healthy foods like fruit, vegetables, milk, meat, beans, and bread or cereal.*
Example: Jeannette's father made sure she had a balanced diet by serving a variety of foods throughout the day.
Variation(s): balanced diets

nutrients, *n.* The parts of food that provide nourishment for the body to stay healthy; *the good parts of food that keep us healthy*
Example: Nutrients include minerals, vitamins, and water. *Eating nutrients helps to keep us healthy.*
Variation(s): nutrient

pyramid, *n.* A shape with triangular sides; *a shape like this:*
Example: At the beach the children built a pyramid in the sand.
Variation(s): pyramids

Introducing the Read-Aloud

What Have We Already Learned?

Review with students Dr. Welbody's Five Keys to Health:

1. Eat Well
2. Exercise
3. Sleep
4. Keep Clean
5. Have Checkups

You may wish to display a list on chart paper in your classroom. Ask students to give specific examples of things they do to practice each.

Brainstorming Links

Tell students that today's read-aloud is called "The Pyramid Pantry." Write the word *pyramid* on a piece of chart paper, a

chalkboard, or a whiteboard, and tell them that they are going to brainstorm things that come to mind when they hear the word *pyramid.* Instruct students to brainstorm all the words, concepts, phrases, etc., they can think of connected to the word *pyramid.* If students mention the Egyptian pyramids, you might want to say that they will learn more about them in the *Early World Civilizations* domain.

Brainstorming Links

Tell students to listen carefully to see what types of food are served at this Pyramid Pantry.

Presenting the Read-Aloud

The Pyramid Pantry

←Show image 9A-1: *Say:* Chef Steph *[Point to the pyramid.]*

Hi, I'm Chef Steph, a friend of Dr. Welbody's. Welcome to my restaurant, the **Pyramid** Pantry![1] Dr. Welbody eats lunch here every day. It is a very cool restaurant, if I do say so myself.

Do you know what a pyramid is? It is a shape with triangular sides. My restaurant is shaped like a pyramid. The menu is like a pyramid, too. *What is a pyramid?*

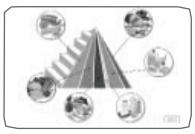
[1] A pantry is a place to store food, usually a part of, or next to, a kitchen.

The food we serve is delicious. But that's not all—it's nutritious! That means it's good for you!

Have you ever heard of vitamins and minerals? They are **nutrients** that your body needs to stay alive.[2] *Eating nutrients helps to keep us healthy.* Nutritious foods supply your body with the nutrients you need. They give you the energy you need to play and learn all day. They keep you healthy and help you grow.[3] *Why is it important to eat nutritious foods?*

[2] Nutrients are the parts of food that provide the things your body needs.
[3] How are nutrients carried through the body? (through the blood)

But not all foods have the same amounts of nutrients. So which foods are the best for you?



←Show image 9A-2: *Say:* Food pyramid. *[Point to the different parts of the pyramid as you read.]*

My pyramid menu is one way to help you figure all this out. *The pyramid menu helps you to know which foods to eat.* The foods are divided into groups. Each group has a different-colored stripe on the pyramid:[4]

- Orange: for grains, like bread and cereal

[4] [Point to each stripe as you describe it. Explain to students that there are other shapes and pictures that can help them remember which

food groups are healthiest and that they will be learning about another picture later..]

- Green: for vegetables, like carrots and green beans
- Red: for fruits, like apples and oranges
- Blue: for milk and milk products
- Purple: for meat and beans

What are the five groups of foods you should eat?

The stripes are the rows in the pyramid. Some stripes are wider than others. You should choose most of your foods from the groups with wider stripes, because you need more of these foods to stay healthy. Each stripe gets narrower, *or smaller,* as it goes up the pyramid. That's because every food group has some foods that are better for you than others. *Which foods should you eat more of?*

←Show image 9A-3: *Say:* Oils. *[Point to the yellow section of the pyramid, then the samples of fats and oils.]*

[5] [Pause for student responses.]

There is one skinny yellow stripe on the pyramid, too. *The yellow stripe is small.* Do you see it? It stands for oils and for fats like butter and mayonnaise. Why do you think this stripe is so skinny, *or small*?[5] You need to eat a little oil or fat every day, but not very much. *Eating oils helps to keep us healthy.* Oils help you grow, keep you warm, protect your bones, help your brain think, and keep your skin and hair healthy. *Why is it important to eat oils?*
Some oils are better for you than others. For example, olive oil and canola oil are better choices than margarine and mayonnaise. *Which oils are better for you?*

What do I hear? Is all this talk of food making your tummy growl? That's what happens when you are hungry. If you were *very* hungry, your legs might feel a little weak. You might even feel a bit cranky. These are signs that your body needs food. Time to look more closely at the pyramid menu!

←Show image 9A-4: *Say:* Grains. *[Point to the orange section of the pyramid then the grains samples.]*

Grains are special types of grasses. Wheat, rice, oats, barley, and rye are all grains. Foods that belong to this group are either whole grains or refined grains. For example, bread is in the grain group. Some breads, like whole wheat bread, are made from whole grains. Other breads, like white bread, are made from refined grains. Refined grains have had most of their healthy parts taken out, whereas whole grains still have all the nutrients your body needs to grow.[6] Whole wheat bread, brown rice, whole wheat spaghetti, whole wheat crackers, oatmeal, rice cakes, and popcorn (yum!) are all good choices. Always choose smaller amounts of refined-grain foods like white bread, white bagels, and corn flakes. And remember to choose only a little bit of

[6] So, which do you think is better for you: whole wheat bread made from nutrient-filled whole grains, or white bread?

sugary, refined-grain foods like cupcakes, donuts, and sweetened cereals. Too much sugar is not good for your body! *What are some foods that are in the grains group? Which grains are better for you?*

←Show image 9A-5: *Say:* Vegetables. *[Point to the green section of the pyramid, then the vegetables samples.]*

Look at the picture and tell me what foods you think belong to the next group on the food pyramid.[7] That's right—it's vegetables! Vegetables come in a rainbow of colors—red, orange, yellow, green, blue, purple, and white. *Eating vegetables helps to keep us healthy.* Did you know that the color of a vegetable tells what it can do for your body? For example, dark green veggies like broccoli and spinach help build strong teeth and bones. Orange vegetables like carrots help you see well. Fried vegetables like onion rings and French fries are less healthy for your body because they are cooked in oil and fat. So, just remember to choose a rainbow of vegetables, raw or cooked (but hardly ever fried), and your body will get the nutrients it needs. *What are some foods that are in the vegetables group? How do vegetables help your body? Which vegetables are better for you?*

[7] [Pause for student responses.]

←Show image 9A-6: *Say:* Fruit. *[Point to the red section of the pyramid, then the fruit samples.]*

Raise your hand if you like to eat fruit. Fruits are delicious and come in beautiful colors. Does anyone see one of your favorite fruits in the picture?[8] Just like vegetables, it is important to choose a rainbow of fruits to get all the nutrients your body needs. *Eating fruit helps to keep us healthy.* The best fruits to choose are fresh fruits like the ones you see in the picture—pineapples, oranges, bananas, grapes, pears and blueberries. Dried fruits, *like raisins*, and canned fruits, jams and jellies, and fruit pies are all good too; just don't eat too many of them. Can anyone guess why?[9] That's right—because they often contain sugar. *What are some foods that are in the fruits group? Which fruits are better for you?*

[8] [Pause for responses and point to the fruits named.]

[9] [Pause for student responses.]

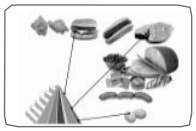
←Show image 9A-7: *Say:* Milk. *[Point to the blue section of the pyramid, then the food samples.]*

Look at this picture and tell me what you see.[10] This is the milk group. But, as you can see, it includes other things as well—products, *or foods,* made from milk, like cheese and yogurt. These things provide your body with calcium and protein—things it needs to make strong teeth and bones and help you grow.[11] It's best to choose low-fat milk and milk foods, like skim milk, low-fat cheese, and low-fat yogurt. Eat fewer fatty or sweet foods like American cheese, frozen yogurt, ice

[10] [Pause for student responses.]

[11] What system in your body do your bones belong to? (skeletal system)

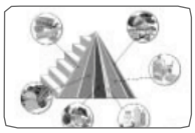
cream, and milk shakes. *What are some foods that are in the milk group? How does milk help your body? Which foods in the milk group are better for you?*



←Show image 9A-8: *Say:* Meat and beans. *[Point to the purple section of the pyramid, then the samples.]*

The last group is meat and beans. Beef, pork, chicken, fish, and turkey all belong to this group. But look at the picture. Do you see anything that doesn't seem to belong? Yes, eggs and beans. So, why are they there? They contain protein, just like meat.

These different foods all work in the same way to help your body grow and move because they all contain protein. It's best to eat the meats grilled or roasted instead of fried in fatty cooking oil or butter. That means you should choose smaller amounts of fried chicken, chicken nuggets, hamburgers, and fish sticks. *What are some foods that are in the meat and beans group? How do foods in the meat and beans group help your body? Which foods in the meat and beans group are better for you?*



←Show image 9A-9: *Say:* Food pyramid. *[Point to the six categories.]*

Now we have looked at foods in all six categories, or groups, included in the food pyramid. Can you name the six categories with me?[12] The most important thing to remember is to eat a **balanced diet.** *Eating a balanced diet helps to keep us healthy.* That means you must choose a variety*, or mix,* of foods from each food group. Eating only grains or only meats will not provide your body with the nutrients it needs. Your body needs foods from each group on the pyramid to help it grow. *Why is important to eat a mix of foods?*

[12] [Pause for student responses.]

Are you ready to order some healthy meals from Chef Steph's menu? Don't forget: It's important to eat three—that's one, two, three—healthy meals a day, and to eat healthy snacks, too.

←Show image 9A-10: *Say:* Breakfast suggestion. *[Point to the breakfast.]*

For breakfast, how about oatmeal with some fresh strawberries? Adding a glass of orange juice is a healthy choice as well. *What food groups are in this breakfast?*

←**Show image 9A-11:** ***Say:*** **Lunch suggestion.** ***[Point to the lunch.]***

For lunch, may I recommend my roasted turkey sandwich with lettuce and tomato on whole wheat bread? How about some carrot sticks with yogurt dip, followed by an apple? *What food groups are in this lunch?* A glass of cold milk is not only a yummy addition, but it is healthy, as well.

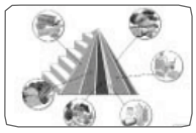
←**Show image 9A-12:** ***Say:*** **Dinner suggestion.** ***[Point to the dinner.]***

And for dinner: three-bean vegetarian chili with a baked sweet potato. For dessert, low-fat pudding with peaches sounds perfect, doesn't it? *What food groups are in this dinner?*

←**Show image 9A-13:** ***Say:*** **Collage of healthy snacks** ***[Point to the snacks.]***

Snacking between meals is fine as long as you make healthy choices. Which would be better for your body:[13] ice cream or a low-fat yogurt with fruit? Potato chips or whole-wheat crackers and cheese? A candy bar or an orange? Remember, healthy snacks will give you longer-lasting energy and a healthier body.

[13] [Pause for answers after each question.]



←**Show image 9A-14:** ***Say:*** **Food pyramid.** ***[Point to the stairs.]***

That brings me back to my pyramid. Did you notice the stairs going up the side? Do you know why they are there?[14] To remind you to keep moving. It's very important to not just eat healthy foods but to also be physically active every day. *What do the stairs remind us to do?*

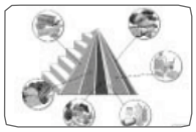
[14] [Pause for student responses.]

←**Show image 9A-15:** ***Say:*** **Children exercising.** ***[Point to the children.]***

Exercise is important. That means that you should participate in skateboarding, swimming, riding your bike, climbing in the playground, or any other sport that you like to do. *Exercising helps to keep us healthy.* Keeping active*, or moving,* helps you stay the right weight for your body. It keeps your bones and muscles in good shape. It makes your heart and lungs stronger. If you get into the good habit of having fun while you are moving, it will help you stay healthy for the rest of your life! *How does exercise help your body?*

Discussing the Read-Aloud

Comprehension Questions



←Show image 9A-14: Food pyramid

1. *Literal* What is the name of the food group that includes rice, bread, and cereal? (grains) Can you name other things that are in the grains group? (popcorn, rice cakes, oatmeal, crackers, etc.) *Listen first. Wheat, rice, oats, barley, and rye are all grains. For example, bread is in the grain group. Some breads, like whole wheat bread, are made from whole grains. Always choose smaller amounts of refined-grain foods like white bread, white bagels, and corn flakes. Whole wheat bread, brown rice, whole wheat spaghetti, whole wheat crackers, oatmeal, rice cakes, and popcorn (yum!) are all good choices. (p. 62)* **What is the name of the food group that includes rice, bread, and cereal? Can you name other things that are in the grains group?**

2. *Inferential* What is the skinniest, *or smallest,* stripe on the food pyramid? (yellow—fats and oils) Why is it so skinny, *or small*? (because you should eat the least amount of these foods) *Listen first. There is one skinny yellow stripe on the pyramid, too. You need to eat a little oil or fat every day, but not very much. (p. 62)* **What is the skinniest, or smallest, stripe on the food pyramid? Why is it so skinny, or small?**

3. *Inferential* To what group do ice cream, yogurt, and cheese all belong? (milk) *Listen first. This is the milk group. But, as you can see, it includes other things as well—products made from milk, like cheese and yogurt. (p. 63)* **To what group do ice cream, yogurt, and cheese all belong?**

4. *Inferential* To what group do eggs, nuts, and tofu all belong?[4] (meat) *Listen first. The last group is meat and beans. Beef, pork, chicken, fish, and turkey all belong to this group. But look at the picture. Do you see anything that doesn't seem to belong? Yes, eggs and beans. So, why are they there? They contain protein, just like meat. (p. 64)* **To what group do eggs, nuts, and tofu all belong?**

[4] Eggs are mentioned in the text. Nuts and tofu are not explicitly mentioned in the text.

5. *Evaluative* Can you name some foods that are in the vegetables group? (Answers may vary.) *Listen first. Did you know that the color of a vegetable tells what it can do for your body?.For example, dark green veggies like broccoli and spinach help build strong teeth and bones. Orange vegetables like carrots help you see well. Fried vegetables like onion rings and French fries are less healthy for your body because they are cooked in oil and fat. (p. 63)* **Can you name some foods that are in the vegetables group?**

6. *Evaluative* Can you name some foods that are in the fruits groups? (Answers may vary.) *Listen first. The best fruits to choose are fresh fruits like the ones you see in the picture—pineapples, oranges, bananas, grapes, pears and blueberries. (p. 63)* **Can you name some foods that are in the fruits groups?**

7. *Inferential* Why are there stairs on the pyramid? (to remind us to exercise) *Listen first. Did you notice the stairs going up the side? Do you know why they are there? To remind you to keep moving. (p. 65)* **Why are there stairs on the pyramid?**

8. *Evaluative* What was different about the pyramid in today's lesson from other pyramids you may have seen? (It was built of food.) What was the same? (Its shape) *Listen first. Now we have looked at foods in all six categories, or groups included in the food pyramid. Do you know what a pyramid is? It is a shape with triangular sides. (p. 64)* **What was different about the pyramid in today's lesson from other pyramids you may have seen? What was the same?**

[Please continue to model the *Question Pair Share* process for students as necessary and scaffold students in their use of the process.]

9. *Evaluative What? Pair Share:* Asking questions after a read-aloud is one way to see how much everyone has learned. Think of a question you can ask your neighbor about the read- aloud that starts with the word *what.* For example, you could ask, "What food group do cherries and oranges belong to?" *You can use this sentence frame to help you: What food group do _____ belong to? If you need more help, you can try asking your partner these questions: What are the food groups in the food pyramid? What*

are some examples of healthy foods? Turn to your neighbor and ask your *what* question. Listen to your neighbor's response. Then your neighbor will ask a new *what* question, and you will get a chance to respond. I will call on several of you to share your questions with the class.

10. After hearing today's read-aloud and questions and answers, do you have any remaining questions? [If time permits, you may wish to allow for individual, group, or class research of the text and/or other resources to answer these remaining questions.]

10: What a Complicated Network!

https://www.engageny.org/resource/grade-1-listening-learning-domain-2-anthology-human-body

Lesson Objectives

Core Vocabulary

complicated, ***adj.*** Hard to understand or difficult to do

Example: The recipe was extremely complicated and had many steps to follow.
Variation(s): none

Introducing the Read-Aloud

What Have We Already Learned?

Tell students that Dr. Welbody will review the five body systems in today's read-aloud. Remind them of the questions posed by Dr. Welbody at the end of Lesson 1, asking them to think to themselves about the answers as you read the questions:

- How many bones do you have?
- Which muscle is the biggest in your body?
- Why does your body still have food in it today that you ate two days ago?
- How long does it take for your blood to go all around your body?
- What controls your five senses?

Purpose for Listening

Ask students to listen to find the answers to the questions posed by Dr. Welbody.

Presenting the Read-Aloud

What a Complicated Network!

←Show image 10A-1: ***Say:*** **Dr. Welbody at her desk.** ***[Point to Dr. Welbody.]***

This is the last time that I, Dr. Welbody, the rhyming pediatrician, will be meeting with you. I've had a great time getting to know you,

and I hope you've learned a lot. Here is a poem that talks about some of the things we've discovered:

←Show image 10A-2: *Say:* Child's body systems. *[Point to the child body system.]*

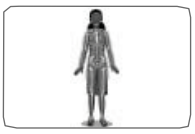
I have a special body, and it just belongs to me.
There are some parts on my outside and others I can't see.
I know about my body, from my heels up to my head,
'Cause I've listened well to all that Dr. Welbody has said.
The parts that make my body keep me healthy and alive.
They are joined in groups called systems; I learned about all five:
There are skeletal and muscular, which help me stand and move,
And the system called digestive that makes fuel out of food.
My heart and vessels move my blood. (That's known as circulation.)
My nerves work with my brain to get and process information.
My systems form a network—it's amazing as can be
That this complicated network makes that person that is me.[1]

[1] *Complicated* means difficult to understand.

←Show image 10A-3: *Say:* Dr. Welbody at her desk. *[Point to Dr. Welbody.]*

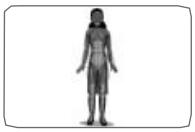
After all we've learned about our amazing bodies, I'll bet that now you will be able to answer the questions I asked you in our very first meeting. Let's go through them and see what you know![2]

[2] [As you review the body systems, elicit answers from students. Then confirm and correct their responses by reading the text.]



←Show image 10A-4: *Say:* Dr. Welbody's skeletal system. *[Point to the skeletal system.]*

How many bones do you have? There are over two hundred, joined together to form your skeleton. Your skeleton keeps you standing tall. Your bones are joined together by joints wherever you can bend or move, like your knees, arms, and shoulders. Some of your bones protect the softer parts of your body. Remember what protects your brain? That's right—your skull. And what bones protect your heart? Your ribs! *How do bones help our bodies?*

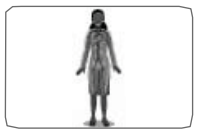


←Show image 10A-5: *Say:* Dr. Welbody's muscular system. *[Point to the muscular system.]*

Which muscle is the biggest in your body? It's your *gluteous maximus* or buttock muscle. Did you know that you use muscles every time you move? Often you decide when you want to move your muscles. For example, you have control over when you raise your arm or lift your leg. But some muscles work by themselves without your having to think about them. Does anyone remember what we call the muscle that works like a pump all day and all night to keep you alive? Yes! It's your heart! *What do our muscles help us to do?*

←Show image 10A-6: *Say:* Dr. Welbody's digestive system. *[Point to the digestive system.]*

Why does your body still have food in it today that you ate two days ago? Food moves slowly through your body. It takes time for your body to digest food, taking all the nutrients from it that your body needs before getting rid of the waste. Food goes from your mouth, down your esophagus, and into your stomach before reaching, *or getting to,* your intestines. The saliva in your mouth and the juices in your stomach help break it down. Nutrients are absorbed into your bloodstream from your small intestine. The waste passes into your large intestine, and you get rid of it when you go to the bathroom. *How does food move through our bodies?*



←Show image 10A-7: *Say:* Dr. Welbody's circulatory system. *[Point to the circulatory system.]*

How long does it take for your blood to circulate all around your body? It only takes about one minute. Your heart muscle works hard to pump your blood all around.

The blood moves through your blood vessels. Does anyone remember what the blood carries with it on its superhighway? The blood carries oxygen from your lungs to all parts of your body. It carries nutrients from your food, too. Your heart works night and day to keep your blood circulating. *How does blood move through our bodies?*

←Show image 10A-8: *Say:* Dr. Welbody's nervous system. *[Point to the nervous system.]*

What controls your five senses? Your brain! You find out about the world through your senses: by seeing, hearing, tasting, smelling, and feeling. Nerves that connect to your spinal cord carry this information to your brain. Your brain is not only in charge of your

senses; it also controls your thinking, learning, speech, and memory. It controls the movements you make and many other things your body does. Your brain is the control center of the body. *What does our brain help us to do?*

←Show image 10A-9: *Say:* Dr. Welbody, pointing to the food plate. *[Point to the food plate.]*

Remember that none of the systems of your body can work properly, *or right,* unless you take care of them. That means eating nutritious foods and drinking plenty of water, exercising, keeping clean, and getting plenty of sleep. Oh, and don't forget to visit a doctor like me for checkups. *What are five things you should do to take care of your body?*

←Show image 10A-10: *Say:* Dr. Welbody, surrounded by happy children. *[Point to Dr. Welbody and the children.]*

Now before we say goodbye, here's one final rhyme for you to learn and take away with you.

I've got a complicated body,
But I understand it well.
Its systems form a network
To keep me feeling swell!

I'll take good care of my body.
I'll exercise and rest.
I promise to eat healthy foods
And to stay clean… I'll do my best!

Let's say the rhyme together now.

Discussing the Read-Aloud

Comprehension Questions

1. Did you know all the answers to Dr. Welbody's questions? (Answers may vary.)

2. *Literal* What system of the body includes joints? (skeletal system) *[Show images 10A-4. Say skeletal system. Point to the skeletal system.] Listen first. Your bones are joined together by joints wherever you can bend or move, like your knees, arms, and shoulders. (p. 69)* **What system of the body includes joints?**

3. *Literal* What system of the body includes the gluteous maximus? (muscular system) What is the gluteous maximus? (buttock muscle or bottom) *[Show images 10A-5. Say muscular system. Point to the muscular system.] Listen first. Which muscle is the biggest in your body? It's your gluteous maximus or buttock muscle. (p. 69)* **What system of the body includes the gluteous maximus? What is the gluteous maximus?**
4. *Literal* What system of the body includes the body's most important muscle? (circulatory system) What is that muscle called? (heart) *[Show images 10A-7. Say circulatory system. Point to the circulatory system.] Listen first. Your heart muscle works hard to pump your blood all around. The blood carries oxygen from your lungs to all parts of your body. It carries nutrients from your food, too. Your heart works night and day to keep your blood circulating. (p. 70)* **What system of the body includes the body's most important muscle? What is that muscle called?**
5. *Literal* What system of the body includes your brain? (nervous system) *[Show image 10A-8. Say nervous system. Point to the nervous system.] Listen first. Your brain and nerves are parts of your nervous system. (p. 70)* **What system of the body includes your brain?**
6. *Literal* What system of your body includes your intestines? (digestive system.) *[Show image 10A-6. digestive system. Point to the digestive system.] Listen first. Food goes from your mouth, down your esophagus, and into your stomach before reaching your intestines. (p. 70)* **What system of your body includes your intestines?**
7. *Literal* What system of your body includes your blood? (circulatory system) *Listen first. They are part of a system called the* ***circulatory system*** *that includes your* ***heart*** *and blood. (p. 70)* **What system of your body includes your blood?**
8. *Inferential* Why is it important to exercise, stay clean, eat a balanced diet, and get enough rest? (All those things keep us free from diseases or help us recover when we do get sick.) *Listen first. Remember that none of the systems of your body can work properly unless you take care of them. That means*

eating nutritious foods and drinking plenty of water, exercising, keeping clean, and getting plenty of sleep. (pp. 70–71) **Why is it important to exercise, stay clean, eat a balanced diet, and get enough rest?**

[Please continue to model the *Think Pair Share* process for students, as necessary, and scaffold students in their use of the process.]

I am going to ask a question. I will give you a minute to think about the question, and then I will ask you to turn to your neighbor and discuss the question. Finally, I will call on several of you to share what you discussed with your partner.

9. *Evaluative Think Pair Share:* Which of the body system do you think is the most important and why? (Answers may vary.) *You can use this sentence frame to help you: I think the ____ system is the most important because _____.*

10. After hearing today's read-aloud and questions and answers, do you have any remaining questions? [If time permits, you may wish to allow for individual, group, or class research of the text and/or other resources to answer these remaining questions.]