Grade 3 | Unit 8

Systems and Senses: The Human Body

Take-Home Pages

Amplify CKLA | Core Knowledge

Grade 3

Systems and Senses: The Human Body

NAME: _____

DATE: _____

Topic and Concluding Sentences

Draw a box around the topic sentence of each paragraph. Draw a circle around the concluding sentence.

Cookies are the best treat. They are very sweet and very tasty. Also, there are lots of different yummy flavors of cookies. If you get tired of one kind of cookie, you can always try another kind. I can't think of one thing that's bad about cookies.

Joyce is not good at singing. When she sings, she can never seem to hit the right notes. If she is supposed to sing high, Joyce sings low. If she is supposed to sing low, Joyce sings high. Even Joyce's dog hates it when she sings!

Hugo is good at drawing. In fact, he once won a drawing contest. Hugo drew a car for the contest, but he can draw all sorts of things. If you ask Hugo to draw an animal or a person or a plant, his drawing will look just like the real thing. He is the best artist I know.

NAME: _____

DATE: _____

Dear Caregiver,

Please help your student succeed in spelling by taking a few minutes each evening to review the words together. Helpful activities for your student to do include: spelling the words orally, writing sentences using the words, or simply copying the words.

Spelling Words

This week, we will be reviewing the spelling of several types of plural nouns. Some plural nouns are formed by adding *–s* or *–es*. For nouns ending in 'y', the 'y' changes to an 'i' before adding *–es*. Your student will also review irregular singular and plural nouns. Your student will be assessed on these words. On the assessment, your student will be asked to write the singular and plural forms of these nouns.

Students have been assigned two Challenge Words, *exercise* and *laugh*. Challenge Words are words used very often. They may not follow spelling patterns and need to be memorized. Students will not be responsible for changing the form of the Challenge Words.

Irregular nouns, such as *child*, cannot be made plural using the regular patterns. Your student must learn and memorize the correct plural form.

The spelling words, including the Challenge Words, are listed below:

Regular Singular Nouns	**Regular Plural Nouns**
1. match	matches
2. night	nights
3. glass	glasses
4. fox	foxes
5. story	stories
6. baby	babies

Irregular Singular Nouns	Irregular Plural Nouns
7. child	children
8. man	men
9. woman	women
10. goose	geese
11. mouse	mice
12. louse	lice
13. tooth	teeth
14. foot	feet
15. person	people

Challenge Word: *exercise*

Challenge Word: *laugh*

Student Reader

The Reader for Unit 8 is entitled *How Does Your Body Work?* Although it is a nonfiction Reader, Dr. Welbody, a fictional character, is the narrator who guides students through the factual information. We are using Dr. Welbody as the narrator in this Reader to make the informational text more accessible to students. The Reader consists of selections that explain how a few of the body systems work.

The chapters your student will read this week include information about the skeletal and muscular systems. Students will learn important facts about the skeletal and muscular systems—what they are and how they work.

NAME: _____

DATE: _____

The Skeletal System

Hello! My name is Dr. Welbody. Some of you may remember me. I visited your school once before. You were in first grade then. We learned about some of the systems that keep your body working. I told you to eat healthy food so you would grow up to be big and strong. It looks like you listened to me, too! I see that you have grown a lot since then! You are getting big and tall!

I am here today to help you learn more about the body and its systems. In the next few days we will learn about three systems: the **skeletal system**, the **muscular system**, and the **nervous system**.

I'd like to begin with the **skeletal system**. The **skeletal system** is made up of bones that give your body shape.

I have a slideshow here on my computer. The first slide shows the **skeletal system**. The picture on the right shows what the **skeletal system** looks like from the front. The one on the left shows what it looks like from the side.

There are more than 200 bones in your body. When I went to medical school to learn to be a doctor, I had to learn the name of every bone in the body. I had to study very hard!

You kids don't need to be able to name every bone in the body. But you should know the names of some of the more important bones. So let's get started!

Let's start at the top, with the **skull**. Doctors call this set of bones the **cranium**. The **skull**, or **cranium**, has a very important job. It protects your brain.

You might think the **skull** is all one big bone. But that's not the case. In fact, a human **skull** is a set of 22 bones.

Rub the back of your neck. Can you feel the bone that's right at the base of your neck? That's one of the bones in your spine, or spinal column. The spine is a chain of bones that runs down through your neck and back. It runs from the base of the **skull** all the way down to your hips (or **pelvis**).

The spinal column is made up of more than 30 smaller bones, stacked one on top of another. These smaller bones are called **vertebrae**. The **vertebrae**

protect a bundle of nerves called the spinal cord. The spinal cord delivers nerve signals to and from the brain.

You may remember learning that animals with spines, or backbones, are called vertebrates. That's because their spines are made up of **vertebrae**.

My next slide shows the bones inside your chest. If you tap on your chest, right in the middle, you can feel your breastbone. It's also known as the **sternum**.

If you tap a bit to the left or the right, you may be able to feel some of your ribs. The ribs protect inner **organs** like the heart and lungs.

If you look at the slide, you can see why people sometimes talk about "the rib cage." The rib bones look like the bars of a cage.

Do you see the two large bones behind the rib cage? They are shaped like triangles. There's one on each side. These are your **shoulder blades**. The medical name for the **shoulder blade** is the **scapula**.

The last two bones I want to tell you about are leg bones. They are called the **tibia** and the **fibula**. These are the two bones in the lower part of your leg. The **tibia** is the larger of the two.

Okay, that's a lot of bones—and a lot of names. Let's play Simon Says and see if you can remember the names. I'll be Simon.

Are you ready?

Simon says, tap your **skull**.

Simon says, now tap your **cranium**.

Ha! The **cranium** is the same thing as the **skull**. Did I trick any of you?

Simon says, flex your **vertebrae** by bending over and touching your **tibia**.

Simon says, take a deep breath and feel your rib cage **expand**.

Simon says, put your **pelvis** to work and sit down.

Now, reach back and see if you can touch one of your **scapulae**, or **shoulder blades**.

Wait! I didn't say Simon says! Did I catch anyone?

NAME: _____

DATE: _____

The Skeletal System: Reader's Theater

Narrator

Welcome to the Human Body Network. Today, we are visiting Mrs. Bones' third-grade class as they learn about the skeletal system.

Mrs. Bones

Good morning, everyone. We have a special visitor today named Dr. Welbody. Some of you may remember her. She visited your classroom when you were in first grade.

Dr. Welbody

Hello! My name is Dr. Welbody. I visited your school a few years ago. We learned about some of the systems that keep your body working.

Everyone

Hello! Hello!

Dr. Welbody

Well, let's begin. The skeletal system is made up of bones. There are more than 200 bones in your body. You kids don't need to be able to name every bone in the body. But you should know the names of some of the most important bones. So let's get started!

Student 1 (tapping her head)

What is the name of the bone that makes up my head?

Dr. Welbody

Good question! Your skull is made up of more than one bone. Doctors call this set of bones the cranium.

Student 2

The cranium? That's a funny name. How will I remember that name?

Dr. Welbody

Try this: The cranium protects your brain, right?

Student 3

I guess so.

Dr. Welbody

And the word *cranium* sounds like the word *brain*. The CRAN-ium protects your BRAIN-ium!

Everyone (giggling)

The CRAN-ium protects your BRAIN-ium.

Narrator

Dr. Welbody and Mrs. Bones are great teachers. The class is learning a lot today!

Dr. Welbody

That was easy!

Student 4 (tapping his chest)

What about this bone right here in the middle of my chest? What is its name?

Dr. Welbody

The sternum. Say it with me—sternum.

Student 5

That's a hard word to remember. Do you have a trick to help us?

Dr. Welbody

Try this poem:

Be glad your sternum's on the inside,
That really is the best.
For if it were on the outside,
You'd have a bony chest!

Everyone (giggling)

Say it again, say it again!

Dr. Welbody and students

Be glad your sternum's on the inside,
That really is the best.
For if it were on the outside,
You'd have a bony chest!

Narrator

I wish I were a third grader today!

Student 6

What about the bones in my legs? What are they called?

Dr. Welbody

The two bones in your lower leg are called the tibia and the fibula. The tibia is the larger of the two.

Student 7

I bet you have a trick for us to help us remember, don't you?

Dr. Welbody (chuckling)

Yes, I do! You see in your Reader that one of the bones is larger than the other. Well, here goes—a fib is a little lie and the fibula is the little leg bone. How about that?

Everyone

We loved your visit! Hooray for Dr. Welbody's tricks and for Mrs. Bones' bones!

Narrator

Thanks for tuning into the Human Body Network today. We hope you learned a lot about bones. Tune in again soon!

NAME: _____

DATE: _____

All About Bones

Last time, we learned the names of some of the bones in the body. Today, I'd like to tell you a little more about bones.

The bone I'm pointing to is the human fibula bone. The fibula, you may recall, is one of the bones in your leg.

The outer part of a bone is hard. It is made up of the same stuff as a seashell you might find at the beach. That stuff is called **calcium**.

Do you like milk? Milk and other **dairy** products like cheese have lots of **calcium** in them. They are good for your bones. One way to take good care of your bones is to eat a healthy diet with **dairy** products. Exercise is also good for your bones.

If you could look inside a bone, you'd see something called bone **marrow**. Since you can't see inside this bone, I'll show you a slide.

This slide shows bone **marrow cells**. I think you may already know a little about **cells**. Is that right? If you look at things with a strong microscope, you can see that many things are made up of tiny **cells**. Your skin is made of **cells**. So are your bones.

Here you can see some bone **marrow cells**. There are millions of **cells** like these inside your bones. The bone **marrow cells** have an important job. They are like little factories. They pump out red blood **cells**. Then, the red blood **cells** carry oxygen all around the body.

As you get older and taller, your bones grow with you. Bones are strong. They can support a great deal of weight. However, if we put too much pressure on them, or if the pressure comes from the wrong direction, bones can break.

This next slide shows a broken bone. This is a special kind of picture called an **X-ray**.

X-rays are part of the invisible light spectrum. When you aim **X-ray** light at your body, some parts of the body absorb a lot of **X-rays** and some do not. Your bones are hard. They absorb a lot of the **X-ray** light. The soft **tissue** around your bones absorbs less **X-ray** light. That is why doctors like **X-rays**. We can aim **X-rays** at a part of your body and get a picture of the inside of your body. We can use **X-rays** to find out if any bones are broken. You will learn much more about **X-rays** in a later unit about light and sound.

Have any of you ever broken a bone?

I fix lots of broken bones each year. Would you like to know how I do it?

I start by taking **X-rays**. That's how I find out if the bone is really broken. If the **X-rays** show that a bone is broken, then I set the bone. That means I put the bone pieces back in the right place. Once the bones are in the right place, I put on a **cast**.

One of the remarkable things about the bones in your body is that they are able to heal themselves. Once a broken bone has been set, it grows back just like it was before it was broken.

Here's a boy I fixed up last summer. He broke one of the bones in his arm. I put the **cast** on to hold the bones in the right place so they would heal. He had to wear the **cast** for two months while the bones healed. Then, I cut the **cast** off for him.

He's just fine now. His bone has healed and his arm is as good as new.

NAME: _____

DATE: _____

Order Sentences

Select and mark the topic sentence (TS) and concluding sentence (CS) in this paragraph. Then, number the remaining sentences, which provide supporting details, in the correct order.

___ Next, spread the peanut butter on one slice of bread and the jelly on the other slice of bread.

___ Making a peanut butter and jelly sandwich is an easy thing to do.

___ First, get out a plate, the bread, the peanut butter, the jelly, and a knife and place it all on a counter.

___ Before you know it, you are ready to sink your teeth into your yummy sandwich!

___ Put your two pieces of bread together to make a sandwich.

NAME: _____

DATE: _____

The Muscular System

Have you ever seen a movie or a TV show in which skeletons chase people? I saw a cartoon like that the other day. These kids were trying to solve a mystery, but they were having problems. Every time they went out to look for clues, a skeleton would pop out of a grave and chase them around.

Well, as a doctor, I have to tell you: that's just not very **realistic**. Bones don't move all by themselves. In fact, bones don't go anywhere at all without **muscles**.

When I bend my arm, I do it by using **muscles**. I tighten the **muscles** in my arm, and the **muscles** make the bones and the rest of the arm move.

When you kick a ball, it's the same thing. You tighten the **muscles** in your legs in order to move your leg bones.

This slide shows you some of the **muscles** in the muscular system. You can see that there are lots of **muscles** in our bodies. There are about 650 **muscles** in the human body, in fact. About half of your body's weight comes from **muscles**!

Muscles are important to us for many reasons. Can you think of some?

Muscles help us run and jump. They allow us to stand up and sit down. We use **muscles** when we lift heavy objects. We also use them when we chew our food and when we smile. We even use **muscles** when we breathe.

Doctors divide **muscles** into two groups: **voluntary muscles** and **involuntary muscles**. **Voluntary muscles** are **muscles** that you can make move and control. **Involuntary muscles** are **muscles** that you can't control. **Involuntary muscles** work without you even thinking about them. These **muscles** work **automatically**.

The **muscles** that help you move your arms and legs are **voluntary muscles**. When you want to pick up a box, you think about it and then tighten the **muscles** in your arms so you can lift the box. You can also control the **muscles** in your legs when you want to make your body run or jump.

The **muscles** in your heart, however, are **involuntary muscles**. They keep your heart beating, whether you are awake or asleep. You don't have to think, "It's time to beat again, heart!" These **muscles** work **automatically**.

There are **involuntary muscles** in your stomach, as well. Your **stomach** muscles keep **digesting** your food without you reminding them to do the job.

NAME: _____

DATE: _____

Joints and Muscles

Does anyone know what we call the place where two bones come together?

It's called a **joint**.

You have lots of **joints** in your body. Your elbow is a **joint**. So is your shoulder. So is your knee.

Many **joints** are **cushioned** by **cartilage**. **Cartilage** is a **flexible, connective** tissue. It is not as hard as bone, but it is stiffer and less **flexible** than muscle.

Do you remember when we learned about the vertebrae—the bones that make up your spinal column? Well, we have **cartilage** between each of the 30 or so vertebrae in our spinal column. The **cartilage cushions** the vertebrae and keeps them from rubbing or banging against each other. The **cartilage** is shown in red in the **model** on the slide.

You also have **cartilage** in your ears. Grab the top of your ear and bend it down a little. Now, let it go. Do you feel how your ear snaps back into place when you let go of it? It's the **cartilage** that makes your ear do that.

Some of the most important tissues in your body are located at the **joints**.

A **ligament** is a kind of tissue that connects one bone with another. Most of your **joints** contain **ligaments**. You have **ligaments** in your knee, in your neck, and in your wrists.

This slide shows **ligaments** in your knee. Can you see how the **ligaments** connect your thigh bone to the bones in your lower leg?

Ligaments connect bones to other bones. **Tendons** connect muscles to bones.

I said earlier that the muscular system and the skeletal system are connected. Well, it's the **tendons** that link these two systems. It's the **tendons** that connect muscles to bones and allow you to move your bones.

One of the most famous **tendons** in the body is called the **Achilles** [ə-KIL-eez] **tendon**. Does anyone know where the **Achilles tendon** is?

That's right! The **Achilles tendon** is in the back of your leg, just above the heel. The **Achilles tendon** connects your heel bone to the muscles in your lower leg. It's an important **tendon** that you use when you walk or run.

Does anyone know why this **tendon** is called the **Achilles tendon**?

No? Well, then, I guess I had better tell you the story.

The **Achilles tendon** is named for a famous Greek **warrior** named **Achilles**. You may remember hearing about the ancient Greeks when you were in second grade.

When **Achilles** was a baby, his mom tried to make sure that he would never die. She had heard that a person who had been dipped in the River Styx could not be harmed by spears or arrows. She took her son and dipped him in the river. Then, she felt better. She believed that her son was **invulnerable**. Nothing could harm him—or so she thought.

There was just one problem. When she dipped **Achilles** in the river, she held him by his heel. So this heel never got dipped in the river.

Many years later, during the **Trojan** War, a **Trojan warrior** shot an arrow at **Achilles**. The arrow landed right above **Achilles's** heel—the very spot that had not been dipped into the River Styx. **Achilles** died from his wound.

So now you know why the **Achilles tendon** is named for **Achilles**. This **tendon** was the one spot where the mighty **warrior** was **vulnerable** and could be wounded.

NAME: _____

DATE: _____

6.2 Take-Home

Dear Caregiver,

Please help your student succeed in spelling by taking a few minutes each evening to review the words together. Helpful activities for your student to do include: spelling the words orally, writing sentences using the words, or simply copying the words.

Spelling Words

This week, your student will continue to work with singular nouns and their plural forms. Students will change the singular noun to a plural noun by first changing the 'f' to 'v', dropping the final 'e' when appropriate, and then adding the suffix *–es*. Your student will be assessed on these words. On the assessment, your student will be asked to write the singular and plural forms of these nouns.

Students have been assigned two Challenge Words, *before* and *please*. Challenge Words are words used very often. They may not follow spelling patterns and need to be memorized. Students will not be responsible for changing the form of the Challenge Words.

The spelling words, including the Challenge Words, are listed:

Singular Nouns	Plural Nouns
1. knife	knives
2. life	lives
3. wife	wives
4. half	halves
5. wolf	wolves
6. loaf	loaves
7. elf	elves
8. leaf	leaves
9. thief	thieves

Singular Nouns	Plural Nouns
10. shelf	shelves
11. self	selves

Challenge Word: *before*

Challenge Word: *please*

Student Reader

The chapters your student will read this week in *How Does Your Body Work?* include information about the nervous system, the spinal cord and brain, and eyes and vision. Dr. Welbody will continue to guide students through the factual information.

NAME: _____

DATE: _____

Review Prefixes
un–, *non–*, *re–*, *pre–*, *dis–*, and *mis–*

Circle the correct word, from the choices after each sentence, to complete the sentence.

1.	Robby approached the dog in a _____ way so the dog would know he wasn't going to hurt it.	nonthreatening	threatening
2.	Uncle Bill was _____ that someone scratched his new truck.	happy	unhappy
3.	Mary had to _____ the roast the night before the party and then finish cooking it that morning.	precook	cook
4.	I _____ that we should offer to cut the grass and rake leaves for our neighbor, Miss Andrews, since her health is not good.	disagree	agree
5.	She _____ how cold it was outside and forgot to take a hat and gloves, so she was very cold.	judged	misjudged
6.	The ribbons I cut for wrapping presents look _____ because two of them seem much longer than the others.	uneven	even
7.	My brother asked me to _____ the new bucket with water so we could wash the car.	refill	fill
8.	Rachel knows the best _____ ways to get her mom's attention from across the room so she doesn't have to yell.	nonverbal	verbal

Write the part of speech and the meaning for each word. Then write the root word for each word.

1. *disconnect*

   Part of Speech: _____ Root Word: _____

   Meaning: _____

2. *misused*

   Part of Speech: _____ Root Word: _____

   Meaning: _____

3. *review*

   Part of Speech: _____ Root Word: _____

   Meaning: _____

4. *unsure*

   Part of Speech: _____ Root Word: _____

   Meaning: _____

5. *prepay*

   Part of Speech: _____ Root Word: _____

   Meaning: _____

NAME: _____

DATE: _____

The Spinal Cord and Brain

You've got a lot of nerves! Really, you do!

You have nerves in your fingers. You have nerves in your toes. There are nerves all over your body. But there are two parts of your body that are especially important for your nervous system. One is the spinal cord. The other is the brain.

I told you a little about the spinal cord earlier, when we were looking at the skeletal system. I told you that the bones that make up your spine—the vertebrae—are there to protect your spinal cord. The vertebrae are **hollow**, and long strings of nerves run through the **hollow** parts of the bones. The nerves that make up the spinal cord run all the way up your back and neck. They end up in the brain.

If I were to have a serious accident and damage my spinal cord, that could be a very bad thing. I might end up **paralyzed**—unable to move my legs and/or my arms. I might need to use a wheelchair to get around, like the boy in this photograph.

You see, the brain uses the spinal cord as a sort of super-highway to send messages out to the rest of the body. If the spinal cord is broken, or damaged, the messages can't get through to the arms and legs.

The spinal cord leads right to the center of your nervous system—your brain. It's the brain that receives messages from the nerves. It's the brain that sends messages out to your muscles. Even though the brain weighs only 2–3 pounds, it is the most important organ for life.

The brain is protected by the skull. Inside the skull, there are three layers of **fiber** and **fluid** protecting the brain. So, the brain is really well-protected. But it can still be harmed. Ask a football player who's had a **concussion**. Getting a **concussion** is like bruising the brain. Ouch!

The brain is divided into three main parts: the **medulla**, the **cerebellum**, and the **cerebrum**. Each part has its own job to do.

The **medulla**, or "brain stem," is located at the base of the skull in the back, right where the spinal cord meets the brain.

The **medulla** controls the important involuntary actions of the body, like breathing, heartbeat, and digestion.

The **cerebellum** sits right next to the **medulla**. It is divided into two **hemispheres** or halves. The **cerebellum** has several jobs. One of them is to control voluntary movements. That means the **cerebellum** helps you walk, run, and jump.

The two **hemispheres** of the **cerebellum** control different parts of the body. The right **hemisphere** controls movement on the left side of the body. The left **hemisphere** controls movement on the right side. It might seem strange that the left side of the brain controls the right side of the body, but that's just the way we're made.

The third part of the brain is the **cerebrum**. The **cerebrum** sits on top of the **cerebellum** and the **medulla**. It is the largest part of the brain.

Each part of the **cerebrum** has a certain job to do. For example, the front part just inside your forehead controls emotions. The very back part just above the brain stem controls the sense of sight. The sense of touch is controlled by a strip of the brain running over the top of your head from ear to ear.

The outside part of the **cerebrum** is called the **cerebral cortex**. The **cerebral cortex** is the wrinkly part of the brain that most people think about when they think of a brain. People sometimes call this part of the brain "the gray matter."

The **cerebrum** is divided into two **hemispheres**, just like the **cerebellum**. Until recently, we did not know much about what the various parts of the **cerebrum** do. But in the past few **decades**, we have learned a lot.

Scientists now have even more advanced ways than just X-rays to look at and observe different organs in the body, including the brain. They use something called an **fMRI scan** to see different parts of the brain work. A scientist may ask the person having the **fMRI scan** to do something like talk or blink their eyes. When the person performs different actions, different parts of the brain light up on the computer screen. Scientists have learned a lot about what happens where in the brain by looking at **fMRI scans**. As you can see from this image of the brain, some of the things we do take place in the left **hemisphere**, while others happen in the right **hemisphere**.

NAME: _____

DATE: _____

9.1 Take-Home

Topic and Irrelevant Sentences

Read all of the sentences in each set. One of the sentences in each set is a topic sentence; underline that sentence. Most of the other sentences in the set are supporting details for the topic sentence. But, there is one sentence in each set that does not belong because it does not stay on the topic. Cross out this sentence.

If you are interested in art, there are many art museums that you can visit.

If you like going to shows, you can choose from many different dramas and plays.

New York City is a wonderful place to visit.

There are also many different kinds of restaurants, so you can find just about anything you want to eat.

Valentine's Day is in February.

You must be sure to give a dog food and clean water each day.

Taking care of a dog as a pet is a big responsibility.

Birds make their nests in the spring.

You also need to walk a dog or let it outside at least twice a day.

It is important that a dog has a comfortable, dry place to sleep.

Francis Scott Key wrote a poem while watching the attack on Fort McHenry.

Andrew Jackson led the army in the Battle of New Orleans.

This poem later became a song known as "The Star-Spangled Banner," which is now our national anthem.

Key watched the American flag fly at Fort McHenry during the entire battle.

He was inspired to write the poem when he saw that the flag was still waving at Fort McHenry the morning after the battle.

NAME: _____

DATE: _____

Eyes and Vision

For the past few days I have been talking to you about the body and its systems. Your teacher asked me if I could also tell you something about vision and hearing.

I told her I could. I know a little about vision and a little about hearing, but I am not an expert on either one. So, I told her I would bring in some friends of mine who know more about these subjects.

I have one of those friends with me today. His name is Dr. Kwan. He is a special kind of eye doctor called an **optometrist**. He can tell you all about the eyes and how they work.

Hello, I am Dr. Kwan. Are you ready to learn all about eyes?

Good!

The human eye has several parts. I'd like to start by showing you two parts you can see easily.

In the images on the right, you can see what eyes look like up close. The pupil is the black part in the center of the eye. The iris is the colorful part of the eye that surrounds the pupil.

The iris can be different colors. Some of you may have green eyes or brown eyes. When we say that a person has green eyes or brown eyes, it's their irises we are talking about.

The pupil is not as colorful as the iris. It is always black, but it changes shape. When it is dark, the pupil gets bigger to let more light in. When it is very bright and sunny, the pupil shrinks to let less light in. How much light will be let into the inside of your eye depends on the shape of the pupil.

Now, let's learn about some parts of the eye that you can't see just by looking at a person's face.

This slide shows some parts of the eye as they would look if you could see inside a person's head. You are looking at them from the side.

You can see the iris and the pupil. There are also some other parts shown.

- The **cornea** is a thin, clear tissue that covers the colored part of the eye. It helps protect the eye from dirt and germs.
- The **lens** is the part of your eye that focuses light. The **lenses** in your eyes curve outward.
- The **retina** is made of a special kind of tissue that is very sensitive to light. Light from the **lens** falls on the **retina**. Then, nerves in the **retina** send messages to the brain.
- These messages travel down a nerve called the **optic nerve**.

Now, let's see how all of these parts work together so you can see things. You may be surprised to learn that the eye does not really see objects. Instead, it sees the light that reflects off objects.

Light passes into the eye—first through the **cornea**, and then through the pupil. If it's dark, the pupil expands to let more light in. If it's bright, the pupil gets smaller to let less light in. When a doctor shines a light in your eyes, she is watching to see if your pupils change shape.

Next, the light passes through the **lens**, which focuses the light and projects it onto the **retina**.

The **retina** is lined with special cells called **rods and cones**. These are special kinds of nerve cells that sense light. The **rods and cones** send information to the brain, using the **optic nerve**.

All of this happens very quickly—so quickly that it seems like you see things at the exact moment you look at them. In reality, though, you are seeing them a split second later.

The brain combines the information passed through the **optic nerve** of each eye to make one image. That is when you "see" the object.

NAME: _____

DATE: _____

Dear Caregiver,

Please help your student succeed in spelling by taking a few minutes each evening to review the words together. Helpful activities for your student to do include: spelling the words orally, writing sentences using the words, or simply copying the words.

Spelling Words

This week, we are reviewing spelling patterns and irregular spellings that we have already learned. Your student will be assessed on these words. On the assessment, your student will be asked to determine the appropriate form of a word to fit in a sentence given orally. Students have reviewed all rules and unique spellings for these words. The chart on the next page lists the words for this week and the pattern or note for each. The bolded words are the spelling words for this week.

Students have been assigned two Challenge Words, *across* and *idea*. Challenge Words are words used very often. They may not follow spelling patterns and need to be memorized. Students will not be responsible for adding any suffixes to the Challenge Words.

The spelling words, including the Challenge Words, are listed below:

Verbs	
Patterns for Adding Suffixes	**Spelling Words**
add *–ed* and *–ing* by doubling or not doubling the final consonant	**watch** → watched, watching **submit** → submitted, submitting
drop the final letter 'e' then add *–ed* and *–ing*	**raise** → raised, raising
add *–s* or *–es* (add *–es* to verbs ending in the following letters: 's', 'x', 'z', 'sh', and 'ch')	**wish** → wishes
change the 'y' to 'i' then add *–ed* or *–es*	**dry** → dried, dries

Nouns	
Patterns for Forming Plurals	**Spelling Words**
add *–s* or *–es* (add *–es* to nouns ending in the following letters: 's', 'x', 'z', 'ch', and 'sh')	**book** → books
change the 'y' to 'i' then add *–es*	**puppy** → puppies
change the 'f' to 'v' then add *–es*, dropping the final letter 'e' when needed	**knife** → knives
irregular plural forms	**child** → children **person** → people
Challenge Word: *across*	
Challenge Word: *idea*	

Student Reader

The chapters your student will read this week in *How Does Your Body Work?* include information about vision and the ears and hearing. Dr. Kwan and Dr. Kim Audit will guide students through the factual information.

NAME: _____

DATE: _____

A Clean Bill of Health

Today is our last day together. Dr. Welbody is here to help us review some of what we learned about the human body. Take it away, Dr. Welbody!

Hello, everyone! It's so nice to see you again! When May and I talked last night, I said that I hoped you had learned how to take care of your bodies so that your pediatricians could give you a "clean bill of health." Does anyone know what I mean by "a clean bill of health"? It's just another way of saying that you're healthy. If someone examines you and finds nothing wrong, they will give you a "clean bill of health." It's important to know how to keep your bodies healthy, so I will talk to you about that, too.

Humans are made of cells, tiny living units that are the building blocks of their bodies. Similar cells group together to form tissues. Tissues form organs, and organs build systems. All the systems working together form a complicated, interconnected network. Do other mammals have cells, tissues, organs, and systems? Yes, cells are the basic building blocks of all living things, including all other mammals!

Humans have many interconnected systems, including the circulatory system, the digestive system, the excretory system, the respiratory system, and the three that we talked about the most: the skeletal system, the muscular system, and the nervous system.

Your skeletal system is made up of axial bones and appendicular bones, working together to give your body a sturdy framework for all the other systems. Your vertebrae are stacked in a column, forming your spine. Together with your protective skull and ribcage, these are your axial bones, running

down the center, or axis, of your body. Your legs and arms are attached to your appendicular bones, the shoulder blades and the pelvis.

Can anyone remember what we call the point where two bones meet? This is called a joint. Some joints move, others don't, and some move just a little bit. And what's the name of the connective tissues that wrap around your joints to hold your bones together? These are called ligaments.

What can you do to give your skeletal system a clean bill of health? Diet is important. Make sure that you eat enough foods with calcium to grow strong bones. Milk, broccoli, and dark, leafy greens are good choices. Posture is important, too; make sure that you sit and stand up straight. Keep your back safe by bending your knees when you lift something heavy!

Ropelike tissues called tendons attach your bones to muscles. These skeletal muscles give your bones mobility, allowing you to touch your toes or climb a mountain. Because we control our skeletal muscles, we call them voluntary muscles. There are other muscles that we cannot consciously control. We call these involuntary muscles.

It is important to keep all of your muscles, both voluntary and involuntary, healthy. What can you do to give your muscles a clean bill of health? Diet is important. Muscles need protein found in eggs, meat, beans, and nuts. Exercise strengthens your muscles. Get all the exercise you can as a way of thanking your muscles for keeping you in constant motion.

Your nervous system is your body's command center that communicates with the rest of your body systems and tells them what to do. Your nervous system works closely with your skeletal and muscular systems. Your skeletal

muscles move your skeletal bones, but your muscles get their commands from messages sent by the nervous system. A network of nerves links your brain and spinal cord to muscles and sensory organs all over your body. Nerves collect messages from your brain, from your senses, and from other places inside your body. Many messages can be sent at the same time, as electrical impulses dash around your body in split-second relays. Your nervous system, with your brain acting as its main commander, controls everything you do. Your nervous system is like an electrical system. Electrical wiring, in your house or in your body, can be shorted out if something goes wrong. So, how can you prevent that? How can you give your nervous system a clean bill of health? It's no surprise that diet and exercise are just as important to your nervous system as they are to your other systems. Vitamins and minerals from healthy foods like fresh fruits and vegetables, and protein from different foods, are all important. Drinking lots of water helps, too. Stay away from eating too many sweets and extra salty foods and drinking too much soda. Be sure to get outside every day to play.

All we have left to review are your sensory organs, which include parts of your eyes and ears. Without these sensory organs, you could not hear a story being read or see words or images on the page. What can you do to give your eyes a clean bill of health? Your eyes already have some built-in protection: eyelids, eyebrows, and eyelashes keep dust and sweat away. Two deep sockets in your skull protect your eyeballs. But there are other things that you can do to prevent injury to your eyes. Never look directly at the sun. Avoid bright lights and smoky spaces. Give your eyes a rest, never sitting for too long in front of a computer or a television screen. Wear safety goggles to protect your eyes from damaging chemicals in pool water or chemicals in a science lab, and

wear sunglasses to protect your eyes from the glare of the sunlight shining off things such as polished surfaces or snow.

Your ears are delicate organs as well, so how can you give them a clean bill of health? Most importantly, keep the noise volume down. Ears can be damaged when sounds are too loud. While it is important to keep your outer ears clean, you must never stick anything too far into them. Objects might get stuck or otherwise cause damage to the eardrum.

Well, that brings us to the end of our time together. We've had lots of fun, and I hope you have, too. We hope you've also learned a few things along the way. Here is one last riddle: I am probably the most important three pounds in your body. I help you think and reason. I control your movements, as well as all your senses. I am the one organ that makes humans more advanced than other mammals. What am I? Your brain! Remember to eat a balanced diet and exercise every day. Dr. Welbody and I wish you all a clean bill of health at your next checkup! Bye for now!

NAME: _____

DATE: _____

13.1 Take-Home

Understanding Different Bodies, Part II

This is a painting of the musician Ray Charles who became **visually impaired** when he was seven years old. His sight changed, but not his hearing. He loved music and decided to become a musician. He learned to sing and play the piano. Eventually, he became one of the most popular musicians of his day. Ray Charles won ten Grammy Awards and made millions of dollars as a singer. He is considered an icon in music history.

This next image shows a girl named Helen Keller. Helen Keller became **visually impaired** and **hard of hearing** after a serious illness when she was just nineteen months old.

As a young girl, Helen Keller could not hear or speak, so she learned to communicate her ideas by making gestures. When she wanted her mother, she would grab and pull her mother to her. When she wanted to be alone, she would push her mom away. She could nod her head to say yes or shake it to say no. When she wanted toast, she would make a **gesture** as if she were spreading butter on bread.

There were a few ideas she could communicate. Yet there were many things she could not get across with gestures. As a child, she would often try to communicate and fail. This would make her angry and cry. Sometimes she would have terrible temper tantrums. She wanted, more than anything, to better communicate and **interact** with the world.

Helen's parents were worried about her. They did not know how to help her communicate. During that time, schools weren't accessible enough for Helen to attend, so her parents searched and found a special teacher who came to live with them. The teacher's name was Anne Sullivan.

Anne Sullivan wanted to teach Helen to understand words. Sullivan started by giving Helen a doll to hold. Then, she took Helen by the hand and traced the letters d-o-l-l on her palm. She did this over and over. After a while, Helen learned to write the letters d-o-l-l on a page. She did not know that she had written a word. She did not even know that words existed. But she felt proud that she could imitate what her teacher was doing.

Her teacher, Anne Sullivan, traced more words on Helen's palm. She learned to spell *pin, hat, cup,* and a few other words. The real breakthrough happened when Anne tried to teach Helen the word *water*. Sullivan took Helen outside to a well. She placed one of Helen's hands under the spout and spelled w-a-t-e-r on her other palm. Suddenly, something seemed to click in Helen's head. She understood that w-a-t-e-r meant the liquid that was flowing over her hand.

Helen soon learned more words. When she was eight, she went to a special school for **visually impaired** students. Sullivan went with her. Later, she went to a school for **hard of hearing** students. But she didn't stop there. She went on to Radcliffe College, where she became the first **visually impaired** and **hard of hearing** person to receive a college degree!

Helen learned to speak and she learned to read lips with her fingers. She learned to read, using the Braille system. She wrote books, including a biography of her own life, *The Story of My Life*. She was active in politics and fought for women to have the right to vote.

Helen Keller lived a long and productive life. She died in 1968 at the age of eighty-seven.

In 2003, the state of Alabama honored Helen Keller by putting an image of her on their state quarter. The quarter pays tribute to Helen's achievements that inspired millions of people.

Grade 3

Answer Key

TAKE-HOME ANSWER KEY

NAME: _____
DATE: _____

1.1 Take-Home

Topic and Concluding Sentences

Draw a box around the topic sentence of each paragraph. Draw a circle around the concluding sentence.

Cookies are the best treat. They are very sweet and very tasty. Also, there are lots of different yummy flavors of cookies. If you get tired of one kind of cookie, you can always try another kind. I can't think of one thing that's bad about cookies.

Joyce is not good at singing. When she sings, she can never seem to hit the right notes. If she is supposed to sing high, Joyce sings low. If she is supposed to sing low, Joyce sings high. Even Joyce's dog hates it when she sings!

Hugo is good at drawing. In fact, he once won a drawing contest. Hugo drew a car for the contest, but he can draw all sorts of things. If you ask Hugo to draw an animal or a person or a plant, his drawing will look just like the real thing. He is the best artist I know.

NAME: _____
DATE: _____

4.1 Take-Home

Order Sentences

Select and mark the topic sentence (TS) and concluding sentence (CS) in this paragraph. Then, number the remaining sentences, which provide supporting details, in the correct order.

2 Next, spread the peanut butter on one slice of bread and the jelly on the other slice of bread.

TS Making a peanut butter and jelly sandwich is an easy thing to do.

1 First, get out a plate, the bread, the peanut butter, the jelly, and a knife and place it all on a counter.

CS Before you know it, you are ready to sink your teeth into your yummy sandwich!

3 Put your two pieces of bread together to make a sandwich.

NAME: _____
DATE: _____

7.1 Take-Home

Review Prefixes *un–*, *non–*, *re–*, *pre–*, *dis–*, and *mis–*

Circle the correct word, from the choices after each sentence, to complete the sentence.

1.	Robby approached the dog in a _____ way so the dog would know he wasn't going to hurt it.	nonthreatening	threatening
2.	Uncle Bill was _____ that someone scratched his new truck.	happy	unhappy
3.	Mary had to _____ the roast the night before the party and then finish cooking it that morning.	precook	cook
4.	I _____ that we should offer to cut the grass and rake leaves for our neighbor, Miss Andrews, since her health is not good.	disagree	agree
5.	She _____ how cold it was outside and forgot to take a hat and gloves, so she was very cold.	judged	misjudged
6.	The ribbons I cut for wrapping presents look _____ because two of them seem much longer than the others.	uneven	even
7.	My brother asked me to _____ the new bucket with water so we could wash the car.	refill	fill
8.	Rachel knows the best _____ ways to get her mom's attention from across the room so she doesn't have to yell.	nonverbal	verbal

Write the part of speech and the meaning for each word. Then write the root word for each word.

1. *disconnect*
   Part of Speech: verb Root Word: connect
   Meaning: to separate or take apart
2. *misused*
   Part of Speech: verb Root Word: used
   Meaning: to have been used incorrectly
3. *review*
   Part of Speech: verb Root Word: view
   Meaning: to look at again
4. *unsure*
   Part of Speech: adjective Root Word: sure
   Meaning: not sure
5. *prepay*
   Part of Speech: verb Root Word: pay
   Meaning: to pay ahead or in advance

NAME: _____

DATE: _____

9.1 **Take-Home**

Topic and Irrelevant Sentences

Read all of the sentences in each set. One of the sentences in each set is a topic sentence; underline that sentence. Most of the other sentences in the set are supporting details for the topic sentence. But, there is one sentence in each set that does not belong because it does not stay on the topic. Cross out this sentence.

If you are interested in art, there are many art museums that you can visit.

If you like going to shows, you can choose from many different dramas and plays.

New York City is a wonderful place to visit.

There are also many different kinds of restaurants, so you can find just about anything you want to eat.

~~Valentine's Day is in February.~~

You must be sure to give a dog food and clean water each day.

Taking care of a dog as a pet is a big responsibility.

~~Birds make their nests in the spring.~~

You also need to walk a dog or let it outside at least twice a day.

It is important that a dog has a comfortable, dry place to sleep.

Francis Scott Key wrote a poem while watching the attack on Fort McHenry.

~~Andrew Jackson led the army in the Battle of New Orleans.~~

This poem later became a song known as "The Star-Spangled Banner," which is now our national anthem.

Key watched the American flag fly at Fort McHenry during the entire battle.

He was inspired to write the poem when he saw that the flag was still waving at Fort McHenry the morning after the battle.

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