ENGLISH

K–3 Foundational Skills

GRADE 3
FOUNDATIONAL SKILLS UNIT 3

Healthy Humans: How to Keep Your Body Strong | Reader

EDITION 1

Grade 3 | Foundational Skills 3

Healthy Humans: How to Keep Your Body Strong

Reader

Acknowledgement:

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Healthy Humans: How to Keep Your Body Strong

Skills 3 Reader

Introduction

Our bodies are amazing machines. But they only stay amazing with some help. Our bodies need good food, regular exercise, and lots of rest. There are many ways to keep your body in tip-top shape. So, lace up your sneakers, and grab some water. Get ready to be the best you!

Chapter

1 Sleep Routine

Think about a toy electric race car. If you play with it for a long time, the batteries run down, and you need to recharge it. You also get tired and need to rest to recharge your body. Sleep is like giving your body a battery boost. You feel rested and ready to play and learn again when you wake up after sleeping.

When we sleep, our bodies actually grow stronger. As you're dreaming at night, your body is doing something cool. There's a small part of your brain called the **pituitary gland**. It creates something called growth hormone, which plays a key role in your body's growth. It helps you get taller and makes your muscles strong. While you are resting, this gland is working.

But there's more that happens when you recharge during sleep at night!

With all the running around we do, our bodies need some fixing. Activities during the day can make our cells run down. Sleep helps those run-down cells, too. During deep sleep, our bodies make **proteins**, like building blocks.

These proteins fix our **cells**, repairing them and helping them grow. They are like tiny workers in our bodies, fixing everything while we dream. When you sleep, you're not just resting; you're growing!

Do you remember what you learned at school today? Or a new game your friend showed you? Sleep helps you remember those things better. Your brain has billions of nerve cells called **neurons**. These tiny parts talk to each other. When you learn, your neurons connect, and sleep helps strengthen these connections. During very deep sleep, you dream, but your brain is also busy thinking about the day. It is like updating and **organizing** files on a computer. Sleep makes your memory better.

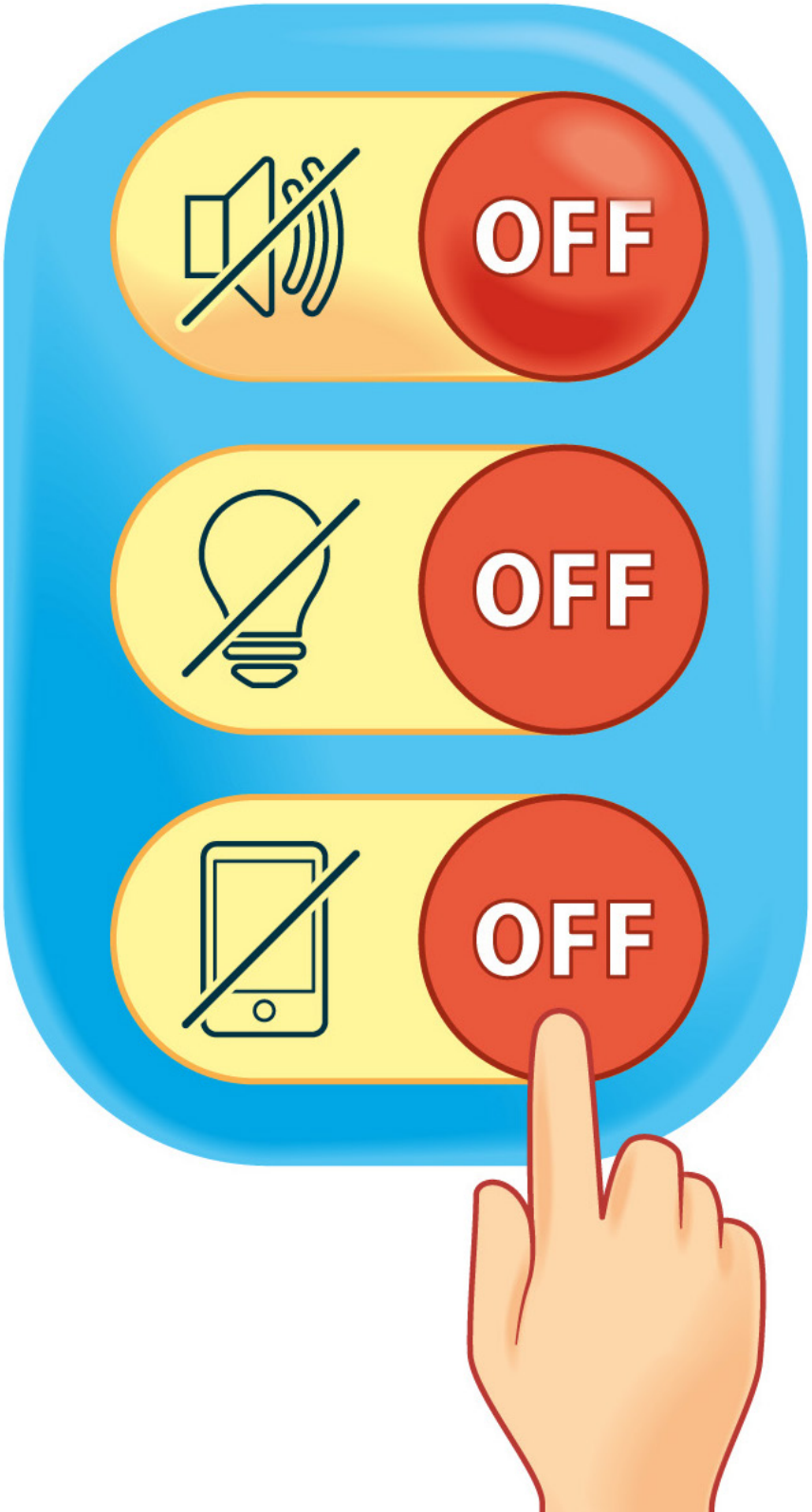
Getting enough sleep can make it easier for your brain to remember things. When you miss sleep, your brain can't sort and save what you learned that day. But with good sleep, your brain can store all the cool things you learned. So, when you sleep, your brain works to make you smarter!

Get Into a Routine

What you do before bedtime can really affect how you feel in the morning and the whole next day.

Athletes have routines they follow to get better at their sport. Following a **routine** means doing things in the same order every time.

If you make a bedtime routine **consistent**, you can get better sleep. Your body and mind need time to shift from 'day mode' to 'night mode.' Doing the same things in the same order every night signals to your body that it is time to sleep.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Going to sleep and waking up at the same time, even on weekends is a routine that helps your body know when it's bedtime. Before bed, experts suggest turning off TVs, phones, and computers for at least an hour. Their blue light can make your brain too awake. Experts also say not to eat a big meal right before bed. When a person eats, their belly stays busy for a while, so for their whole body to rest, it's better to eat earlier. Things with caffeine, like some sodas, can keep people awake, so not drinking them before bedtime can help with better sleep too.

Right before bed, doing quiet things help slow your body down. Running around is fun, but it increases **cortisol** in your body. Cortisol is your body's stress hormone. Quiet activities could include playing quiet games, reading a book, or illustrating a picture. These activities lower cortisol and stress to help a body to relax.

When it gets dark, our bodies make a hormone called **melatonin** to help us sleep. A dark room helps your body make more melatonin. Some people decorate their sleeping space with light-blocking curtains. A sleeping mask can also help keep the light out. A small nightlight is fine if you're scared of the dark. But bright lights might keep your brain awake.

A clean room can help you relax. If each item in your room has its own spot, you can find what you need more easily. Consider doing your homework outside of your bed. This might train your brain to think of your bed only for sleeping.

Loud sounds can wake us up or stop us from sleeping. Some people use earplugs or a machine that makes soothing sounds. Even a fan's sound can help a person sleep. A quiet place seems to produce the best sleep.

What if you still can't sleep after trying these tips? It's okay! Sometimes, we just need more time to relax. Sleep experts suggest that you inhale and exhale slowly by thinking about inflating a balloon with your breath and then letting the air out slowly. Another suggestion is to close your eyes and think of a nice place, like the beach or woods. Picture waves or singing birds. Think about how the sun's warmth or the cool shade feels. This can help you breathe easily and feel sleepy. Soon, you will be ready to escape to dreamland. What other tricks can you use to help you sleep better?

Chapter

2 Exercise and Water

Playing and being active is really good for you. Doctors **advise** that you exercise every day.

Pumping Power

Your heart is a strong muscle inside your chest that beats day and night. It sends blood everywhere in your body. Your heart beats about 100,000 times a day! That's a lot of hard work! The sound your heart makes, "lub-DUB, lub-DUB," is the sound of its **valves** opening and closing. Even when you're resting, your heart is working hard. But when you run around and play, it beats faster. It's like your heart is a little drummer that plays quicker when you move, sending blood and air to every part of you.

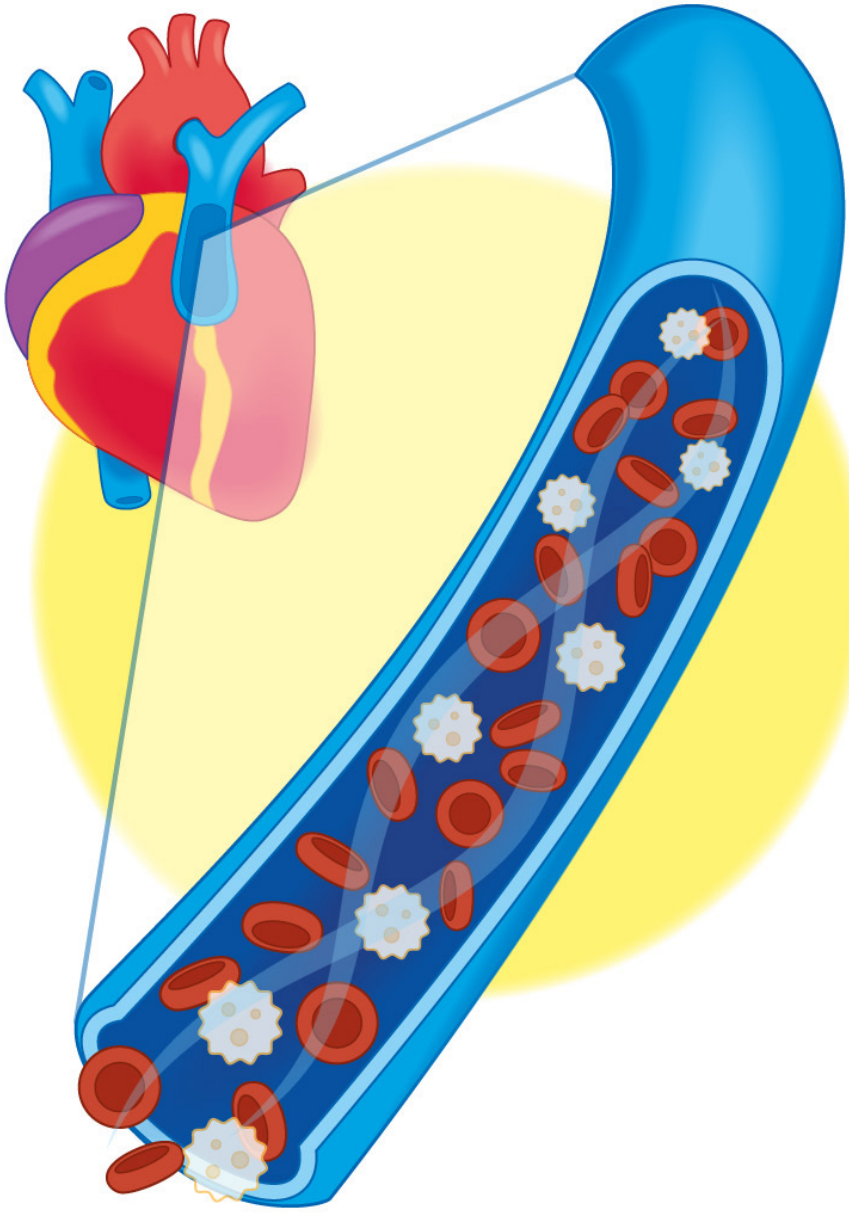
Your heart gets good at its job when you stay active, just like a drummer who's great at keeping the beat. What are your favorite ways to be active?

Clean Streets

Think of your body like a big city. In this city, there are lots of roads. These roads are called **arteries**. They let blood travel all through you. When you're active, your heart makes the blood rush down these roads. Being active is important because it keeps the roads open and clean. It's like having a street cleaner that clears away any trash. The arteries get **clogged** if you don't get up and move. So when you exercise, you're helping keep the roads for your blood open and traffic-free.

Blood also has little soldiers in it called white blood cells. They look for germs that don't belong, like bad bacteria and viruses. When you're active, your heart pumps more, and these soldiers can zoom around faster to find germs. They can also talk to each other better, like using walkie-talkies to call for help.

This makes it easier for them to unite to stop the germs. Movement excites your blood soldiers to get to the germs quicker and fight them off.



Good to Go

Think of a super-cool car. Every car needs **fuel** to go. Your body is the same. Your body uses food instead of gas for energy. There are different types of fuel for cars and many types of food for your body. Healthy foods like fruits, vegetables, whole grains, and protein are the best fuel for humans. When you eat, your body works hard to break the food into tiny parts. This is called digestion. When food is digested, the smallest bits are called nutrients.

One special nutrient is glucose, a kind of sugar. It gives your body energy, like a speed boost for a car! Your body's tiny parts, called cells, use glucose and oxygen to make energy. This is called **cellular respiration**, which is like your cells breathing!

If you eat more food than you need right then, your body saves some for later. It stores extra energy in special parts called fat cells. Your body uses this saved energy when it is needed.

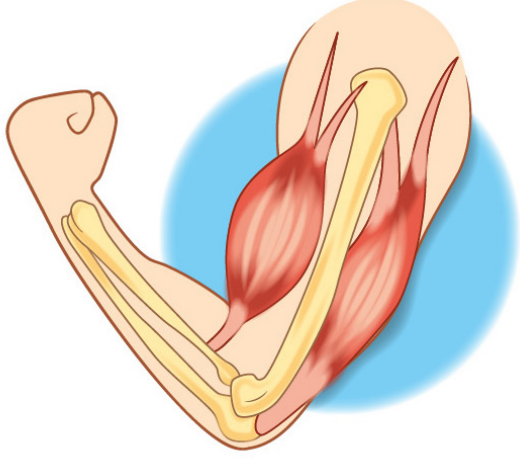
This energy helps you do everything from running and jumping to thinking and breathing! Every time you move and even when you're dreaming, your body uses the energy from food. What are some of your favorite healthy foods?.

Next time you're munching on a meal, think about the fantastic actions going on inside you. You're not just eating; you're fueling up!

Mighty Muscles

Every time you move, you are using your muscles. The harder you work them, the stronger they get. But how?

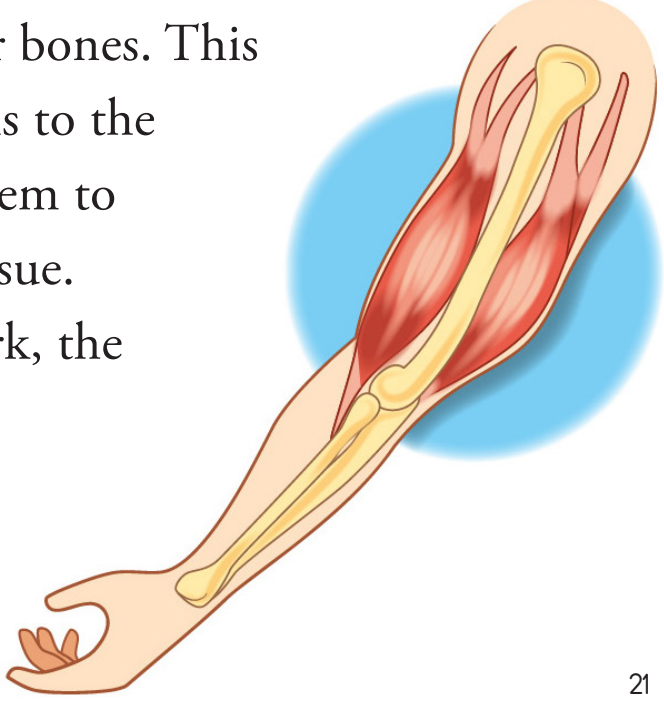
Your muscles are made of many tiny fibers like a bunch of small ropes all bundled together.



Your brain sends muscles to these fibers to make them contract and relax. This puts stress on your muscles. It might sound scary, but it's actually a good thing!

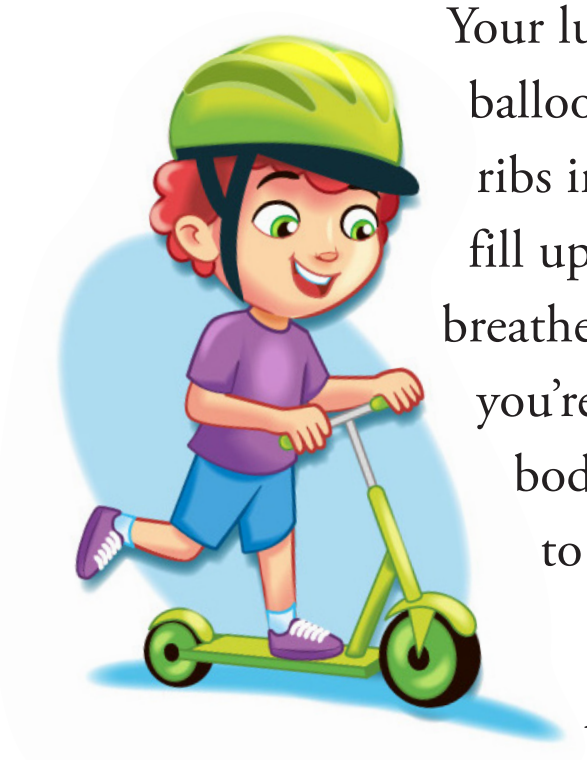
Here's why: Your body is super smart. It sends in special cells to help them. The cells add more material, promoting muscle growth. This repair makes the muscle fibers thicker and stronger than before. It's like when you build with clay. If you add more and more layers, the shape becomes bigger.

The process of building strong bones is just like building strong muscles. Jumping, running, and skipping make your bones solid and sturdy. When you move, you put pressure on your bones. This pressure sends signals to the bone cells, telling them to create more bone tissue. The harder they work, the stronger they get.



Every time you exercise, you're challenging your muscles and bones. Your body's cells build up your muscles and bones even more, making you stronger over time.

Breathe in the Good Stuff



Your lungs are like two big balloons enclosed behind your ribs inside your chest. They fill up with air every time you breathe, and with each breath, you're taking in **oxygen**. Your body loves oxygen and uses it to turn food into **energy**.

Think of your lungs as two big trees. Trees soak up the sunshine they need, just like your lungs soak up the oxygen you need. You need to keep your lungs healthy so they can do their job right!

Just like you wouldn't dump trash on trees, you wouldn't want to fill your lungs with dirty stuff. Smoke, pollution, and dust can harm our lungs. These harmful things make it harder to breathe. Spending time outside, especially in green places like parks or forests, gives your lungs a treat because the air there is clean and fresh, full of good oxygen your lungs love.

Exercise is like a workout for your lungs! You breathe faster and deeper when you run, skip, or play. Your body needs more oxygen when you are active, and this deeper breathing helps keep your lungs strong and healthy. It's like giving your lung balloons a good **stretch**!

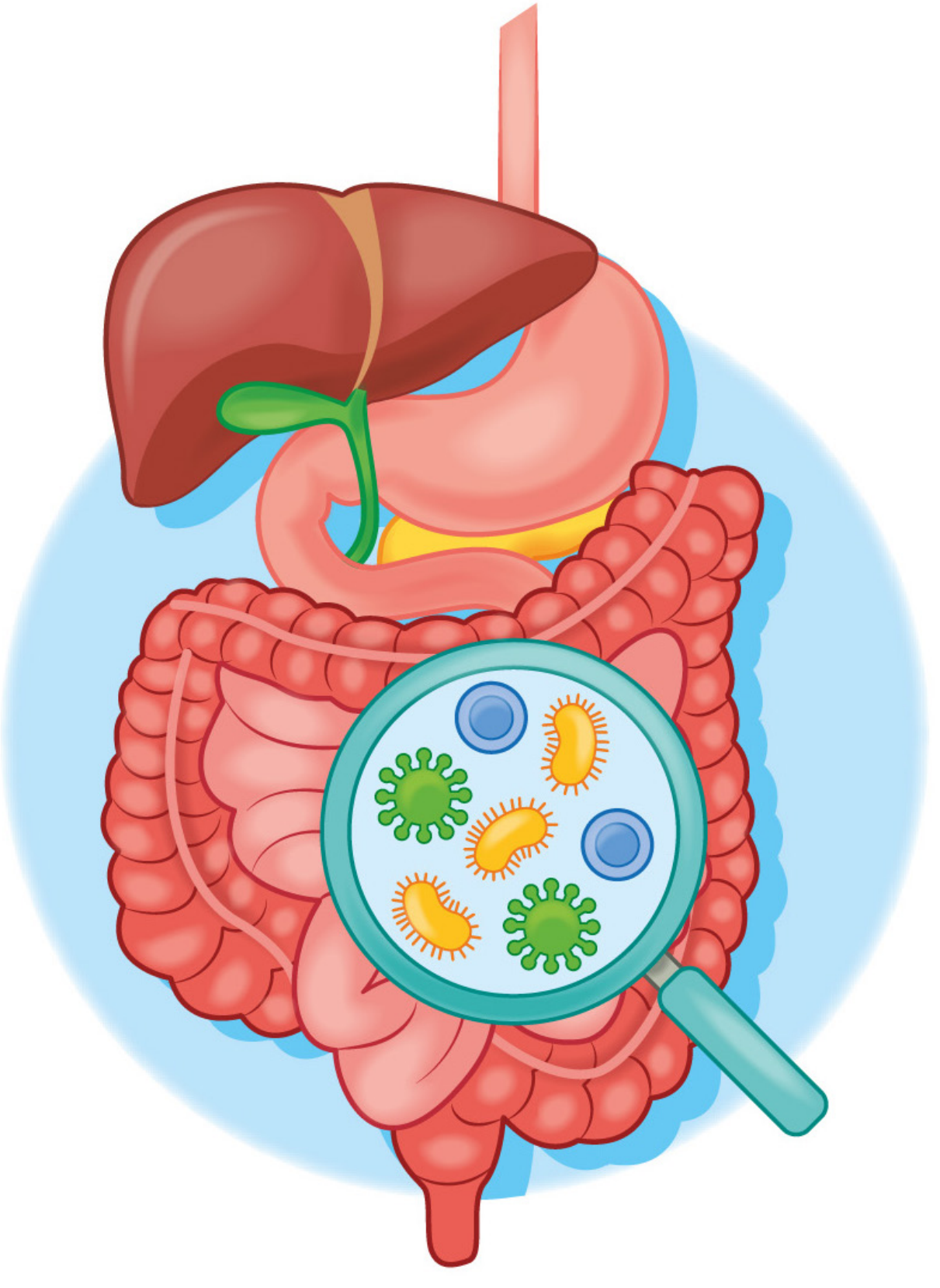
Happy Tummy

Imagine your digestive system is a wild waterslide at an amusement park. The fun starts at the top. When you eat, you put food in your mouth; then it travels down your throat. This is like a person zooming down a waterslide. The food goes through many twists and turns to get to the bottom. When you exercise, it's like getting an extra push at the top of the slide. Working out helps your stomach and intestines move the food along faster.

Exercise increases blood flow in your body. Your body sends more blood to your muscles when you're active. It also sends more blood to your stomach and intestines to help them work better. Did you know your stomach and intestines have muscles? Yep! And when you move, those muscles move, too.

They squeeze and relax, pushing the food along and helping break it down. It's like how you'd squish and squash clay to shape it.

Your intestines hold more than food. There are friendly little bugs called **microbes** or **bacteria** that help you digest your food. Most of these bacteria are friendly. They help break down the food you can't digest on your own. When you exercise, it helps these bacteria do their job. Movement contributes to a better home in your intestines. The bacteria help you get the most out of the food you eat. This means a short walk after a meal is helpful to the work your body is doing with food. Exercise can also help increase the number of good bacteria in your gut.



Stay Hydrated

About 60% of our body is made of water, which is more than half. Our brain, where we think and dream, is filled with 75% water. That's why we need to drink lots of water to keep everything working super well inside us.

Think of water as a special delivery truck for our bodies. Our body breaks yummy food into tiny pieces called nutrients. Water helps carry these tiny pieces to all the little parts inside us, giving us the energy to play, think, and have fun. Our body needs nutrients to keep us active and healthy like a factory needs supplies to make toys.

Water also helps clean up any mess the cells produce. After the nutrients are delivered, there's some leftover stuff called waste. Water helps carry this waste away like a garbage truck. If we don't drink enough water, it's like the garbage truck refuses to work. This may cause us to feel sleepy, have headaches, or forget things.

We sweat to cool down when we run around, especially on a sunny day. This sweat is our body's way of saying, "Whew! It's hot!" There are tunnels from the glands to our skin, that send sweat to our skin when we are too hot. The air dries the sweat, which is mostly water, on our skin. It's like getting out of a shower or pool and feeling the cool air. The sweat takes heat away as it dries, but it also takes away the water. When we're sweaty, there is no substitute for drinking water. Sweating uses up some of our water, so we must drink more to stay cool and **hydrated**.

Even when we're just chilling or watching TV, our body still needs water. Sometimes, when our tummy rumbles, and we think we're hungry, we might be thirsty! So, the next time you want a cookie or chips, try drinking water first. Maybe your body is just asking for a cool drink!

Chapter

3 Personal Hygiene

Our bodies have many ways of keeping us healthy like a superhero holding a **shield**. But we have to help our body to keep that shield strong. We can do this with good personal **hygiene**, which means keeping ourselves clean.

Scrub a Dub Dub!

Our bodies are like busy beehives. Just as bees work tirelessly to make honey for food, our awesome bodies make **oil** to keep our skin soft and safe. However, there's a hitch: just as honey can attract ants and other insects, our skin's oil can attract dirt, dust, and tiny germs.

When we're feeling the heat or getting active, our bodies sweat. This sweat can mix with the oil, becoming a sticky trap for even more dirt and germs.

When we wash, it's like giving our body a fresh start. Soap is useful for removing the oils from around the germs so the water can wash the germs away. We scrub away all the dirt and germs on our skin, which means fewer germs to make us sick, helping our skin stay clean and happy.

Our scalp, the skin under our hair, also makes oil. This oil keeps our hair shiny and healthy, but dirt from the playground or dust from our homes can stick to the oil in our hair. Washing your hair regularly keeps your scalp and hair clean.

Our feet work hard! They carry us everywhere: to school, the park, and back home. But they also get sweaty, especially when we're running around

or if our shoes are tight. Sweat mixed with the oils of our skin creates a damp place germs absolutely love! After washing, dry your feet well, even between the toes because germs love hiding there.

Keep It Clean

Every day, our clothes grab tiny bugs called germs from things like dust or sneezes. These germs then hop onto our skin. Clean clothes help protect our skin and body from germs that might make us sick.

After playing all day, our shoes might feel a bit damp inside. Wet shoes are like a fun park for germs and can make our feet smelly. But if our shoes dry properly, our feet stay happy and fresh. Giving shoes time to dry before wearing them again helps to keep germs away from your feet.

Healthy Hands

Our hands are quite busy each day, helping us write, eat, play, and lots more. But our hands pick up invisible germs as they do their daily jobs. Some of these germs might be harmless, but others can make us feel unwell. Some of these germs can give us a cold, a tummy ache, or even the flu!

Think about having a handful of tiny glitter pieces. The glitter would spread if you touched your face or food with that hand, right? Germs work the same way but are even tinier and invisible! We're getting rid of these invisible germs and keeping our bodies healthy when we wash our hands carefully.

Great Times to Wash Your Hands:

- Before eating: Anything on our hands might end up in our mouth when we eat. Clean hands mean clean food!
- After using the bathroom: Plenty of soap and water should remove the germs.
- After playing outside: Even if you can't see it, there could be dirt and germs on your hands and body.
- After touching pets: Our furry friends are great but can carry tiny germs on their fur or skin.
- After coughing or sneezing: Tiny water droplets spray out when we cough or sneeze, and these droplets can carry germs. It's like splashing in a puddle.

Water works best when combined with soap. You need soap to ensure the germs are really gone. Sing "Happy Birthday" twice while you scrub your hands with soap and water. After washing, use a clean cloth or air dryer to dry your hands fully. That way, you will know your hands are truly clean and free of germs.

We use an umbrella to keep the rain off us when it rains, and tissues are like umbrellas that protect us from germs. In the same way, a tissue can trap germ-filled water **droplets** when we sneeze or blow our noses. After using the tissue, remember to toss it in the trash and then wash your hands. Hopefully, by doing this, germs won't spread to your friends or family.

Our nose is a warm **cave** for germs. Germs love to hang out there, so it's best to keep fingers out. Otherwise, you might move the germs from your nose to other parts of your body or to things others might touch.

Chapter

4 Dental Hygiene

Mouths are busy places. We use them to eat yummy meals, sip on drinks, chat with friends, and even sing our favorite songs. Our teeth become shiny and look like little white stars when we brush them.

Mouth Matters

Brushing after eating is important! Tiny food bits and icky bacteria stick around if we forget to brush. It's like how bugs gather around a bright light. These bacteria love the leftover food and make a sticky thing called **plaque**. Plaque can make **acid** if we don't clean it off, which creates tiny holes in our teeth. And it turns into hard **tartar** if we wait too long. Tartar can make our gums (the pink stuff holding our teeth) look red and puffy.

Brushing keeps our breath fresh. Leftover food and bacteria from our meals can give breath a bad odor. Using a toothbrush helps by making our teeth super clean. But the brush can't always reach the tiny spaces between our teeth. That's where floss comes in! Floss is a tiny tool that slides between teeth and grabs food bits and bacteria.

Need more inspiration to brush? Keeping our mouths clean doesn't just make our teeth happy. The rest of our body might get upset if we don't brush well. Germs from our mouths can get into our blood and create problems for our **organs**, like our hearts. Taking care of our teeth keeps our whole body smiling!

Tip Top Teeth

Here is some guidance for a good toothbrushing routine. Dentists suggest that you use toothpaste and a soft toothbrush, and brush in circles to cover all parts of your teeth. Focus on more than the teeth closest to the front of your mouth, and be sure to get to the teeth in the back. People who brush in the morning clean off bacteria that grew overnight. Brushing again later removes the food you ate during the day. What other tips have you learned for good teeth brushing?

Flossing removes food and plaque between teeth, so dentists suggest that people floss daily. Mouthwash can make your breath smell good and kill germs, but you still need to brush and floss. Remember that bacteria on your tongue can cause bad breath.

A dentist can find and fix problems early. They can also clean off tartar, which is difficult to clean off at home. Some dentists give **fluoride** treatments to make your teeth stronger. Dentists may even suggest braces. Your teeth can be moved. Braces move teeth to the right place so they stand up in a row. A special dentist puts a tiny square on each tooth with a wire connecting them. The dentist adjusts the braces, and the teeth move over time. At first, braces might feel strange, but your teeth will look great when they come off!

Chapter

5 Mind-Body Connection

Just like bodies go through many changes, our minds change often as well. Sometimes, we feel happy, excited, or chill. Other times, we might feel sad, angry, or scared. Our feelings can affect the health of our bodies. Just as we sleep and exercise to keep our bodies healthy, we can do things to keep our minds healthy, too.

Feel and Heal

Think about playing a video game and being surprised by an enemy. You would be on high alert, right? In the same way, when you face problems, your body gets ready to respond. This is called the "fight or flight" response.

Stress causes the production of **chemicals** that get you ready for action.

One of these chemicals is **adrenaline**. Adrenaline makes your heart pump faster and harder, increasing your blood pressure. High blood pressure can strain your heart and blood vessels. Your game console would wear out sooner if you kept it on all the time. In the same way, your body uses a lot of energy when it is always on high alert. That can make you feel tired or drained. It can cause health problems.

Luckily, there are many ways to control stress and reduce adrenaline. It can clear your mind to play, exercise, or even just take a walk. Happy and relaxed feelings are more noticeable after playing. That's because exercising helps your brain release tiny happy helpers called **endorphins**.

They are like little heroes that chase away sad or stressful feelings.

They bring in good thoughts and make hard times more **manageable**.

You might also notice that you are more alert after activities like running or jumping on a trampoline. Being active can help you concentrate better on your homework or listening to a story. Exercise boosts your brain's ability to focus.

Everyone's brain works in its own **fascinating** way. Some of our friends might find it hard to focus. Some might have a lot of worries. Some might get sad often. All feelings are okay. It's normal to have many different feelings, even in one day! But it's important to talk about it if a feeling like sadness doesn't go away. You can share your worries with a trusted adult, like a family member, if the feelings make things hard for you. Sharing feelings is courageous.

Friendly Faces

Good friends are great for our mind and body because friends can help us feel happy and less alone. They may listen when we are sad, and they may make us laugh. Being with friends can make bad times easier and fun times even better. This can lead to lower stress levels, and some experts believe that less stress makes you less likely to get sick. So being with friends is not just a good time, but also a great way to stay healthy.

Being part of a group or having close friends can give us a sense of belonging. Friends can also help us feel good about ourselves. We may learn from friends how to share, solve problems, and understand others' feelings. Positive friendships can be encouraging to us. Good friends may keep us from making bad choices because they want the best for us. They can make us want to try new things. Engaging in active play with friends gets our hearts pumping, which is great for our body. Friends can **motivate** each other to do well in school or study together. Having good friends is like having a team always there for you.

Glossary

A

acid (as-id): a bitter and sharp chemical that can often burn holes in or damage things it touches

adrenaline (uh-DREN-i-lin): a substance produced in the body when you are excited, afraid, or angry

advise (uhd-vyz): to tell someone what you think they should do, usually something they think is the right thing to do

arteries (AR-tuh-reez): any of the tubes that carry blood from the heart to other parts of the body

B

bacteria (bak-teer-ee-uh): tiny forms of life in air, water, food, and living things that often cause disease

C

cave (KAYV): an enclosed space or hole that usually only has one opening and tends to be dark inside

cells (selz): the smallest unit of life, making up all plants and animals

cellular respiration (sel-YOO-lur res-pih-RAY-shun): the process that the body breaks down sugar into a form that the cell can use as energy

chemicals (KE-mi-kuhls): a substance used in or made by a chemical process

clogged (klogd): when something is stopped up or blocked so that things trying to move through it get stuck

consistent (kuhn-sist-uhnt): having a regular style or pattern; not changing

cortisol (KOR-ta-sawl): a hormone that gives our bodies the energy to fight stress, fever, injury, or illness

D

droplets (drop-luhts): small drips or globs of liquid

E

endorphins (en-DOR-finz): a chemical produced in the brain that reduces the feeling of pain

energy (EH-nr-jee): a source of power

F

fascinating (fas-uh-nayt-ing): extremely interesting

flossing (flos-ing): using thin pieces of string between your teeth to clean out food, plaque, and tartar

fluoride (FLOR-ide): a chemical added to water and toothpaste that helps keep teeth healthy and prevents cavities

fuel (fyoo-uhl): a material that creates heat or power when it is burned or processed

G

gland (glănd): an organ that produces substances for the body to use

H

hydrated (hy-drayt-id): when a living thing has enough water in it to stay healthy and grow

hygiene (HAI-jeen): habits that one forms that help support the body's cleanliness and health

M

manageable (man-i-juh-buhl): possible to deal with or control

melatonin (muh-la-to-nin): a hormone that helps control waking and sleeping

microbes (MI-krobes): an extremely small living thing that can only be seen under a microscope

motivate (moh-tuh-vayt): the reason why somebody does something or acts in a certain way

N

neurons (NYOO-ronz): nerve cells that send information to the brain and body

O

oil (OYL): a liquid used as a fuel

organizing (or-guh-nyz-ing): putting things in categories or a certain order to make them easier to understand or find what you need

organs (or-guhnz): parts of the body that have a certain purpose, like lungs for breathing

oxygen (ok-si-juhn): a gas in the air and in water that is necessary for people, animals, and plants to live

P

pituitary (pih-TOO-ih-tair-ee): a small brain gland that makes important body hormones

plaque (plak): a soft, sticky film on teeth that contains bacteria

proteins (PROH-teens): parts of the body that help with growth, repair, and other functions

R

routine (roo-teen): the usual order and way in which you do things

S

shield (SHEELD): a cover that is meant to protect

stress (STRES): a feeling of worry or pressure caused by problems in your life or having too much to do

stretch (STRECH): to spread out or reach as far as possible

T

tartar (TAR-ter): hard dental plaque that forms on teeth

V

valves (valvz): parts of the heart that act like doors, opening and closing to control blood flow

About this Book

This book has been created for use by students learning to read with the program. Readability levels are suitable for early readers. The book has also been carefully leveled in terms of its "code load," or the number of spellings used in the stories.

The English writing system is complex. It uses more than 200 spellings to stand for 40-odd sounds. Many sounds can be spelled several different ways, and many spellings can be pronounced several different ways. This book has been designed to make early reading experiences simpler and more productive by using a subset of the available spellings. It uses *only* spellings students have been taught to sound out as part of their phonics lessons, plus a handful of Tricky Words, which have also been deliberately introduced in the lessons. This means the stories will be 100% decodable if they are assigned at the proper time.

As the students move through the program, they learn new spellings and the "code load" in the decodable Readers increases gradually. The code load graphic on this page indicates the number of spellings students are expected to know in order to read the first story of the book and the number of spellings students are expected to know in order to read the final stories in the book. The columns on the opposite page list the specific spellings and Tricky Words students are expected to recognize at the beginning of this Reader. The bullets at the bottom of the opposite page identify spellings, Tricky Words, and other topics that are introduced gradually in the unit this Reader accompanies.

TRICKY WORDS:

bacteria, batteries, blood, building, cells, earlier, early, energy, exercise, flossing, fruit, germ, heart, healthy, hygiene, intestine, muscle, pressure, proteins, routine, should, soldier, sugar, tissues

Code Knowledge added gradually in the unit for this Reader:

- Decoding multisyllabic words with VCe syllables
- Decoding words with suffixes that change the base word by dropping the final E

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