

GREAT THE BODY SHOP

Come in and learn about your body!

Muscles in Motion

THE GREAT BODY SHOP kids love to play! Watch them move. Betsy loves to run! Cool Dude kicks the ball! Suzy and Hamisi can catch! Tito is happy. He is waving a flag. Simon rides a bike. The other kids are stretching.

See how they move and play?
They have **muscles**. Muscles help them move. You have muscles, too. Muscles are all over your body. Move your head. Move your toes. Each muscle moves a different part of your body. Do you know how they do that? Keep reading and you'll find out!

Name: _____



Muscles Let You Move

Some muscles are very big, like the ones you are sitting on. These muscles are very strong.

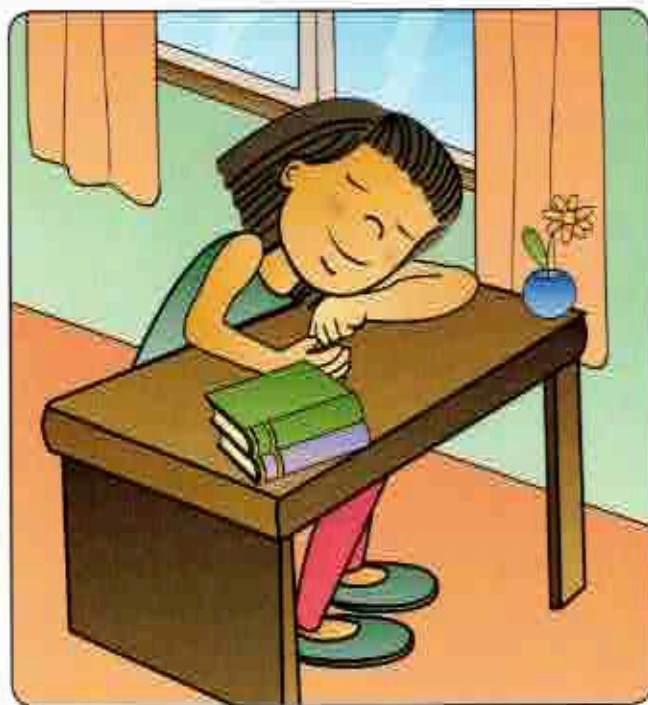
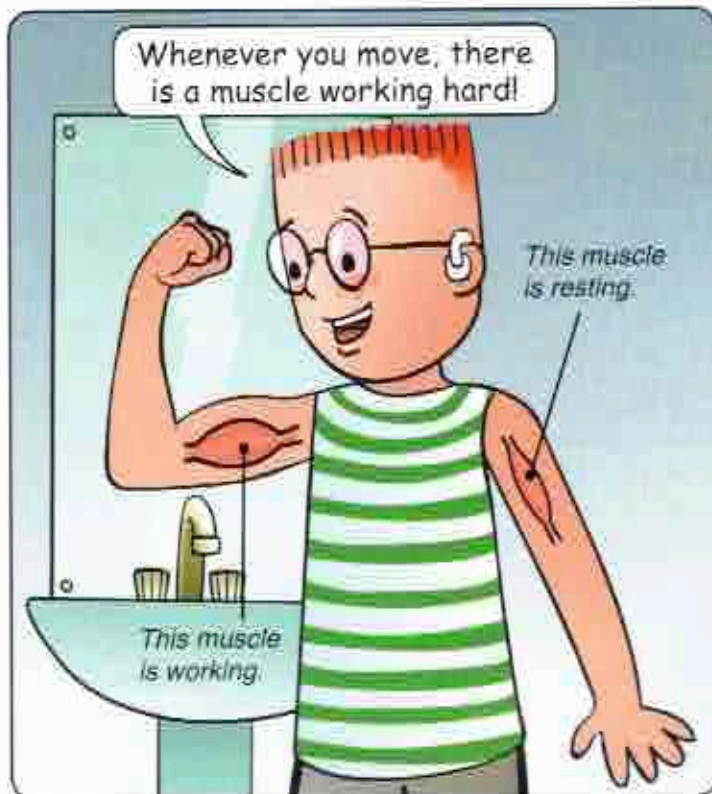
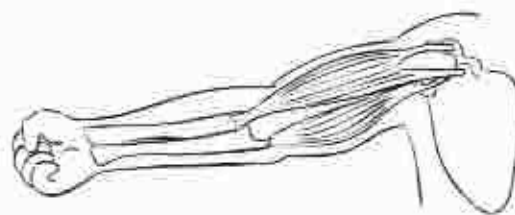
Some muscles are very tiny, like the ones that open and close your eyelids. They are as thin as threads.

Look at the picture of Willie. His arm muscle gets harder when he uses it. It gets softer when it is resting.

Try this: Bend your arm and make a fist like Willie's. Squeeze your muscle so that it pops up. Feel how hard it is.

Put your arm back down. Feel the muscle again. Now, it is softer and it does not look as big.

Color the arm muscles in the following pictures.



Working All the Time

Look at Suzy taking a nap. Do you think she is moving any muscles?

She sure is! Muscles move her chest up and down to help her breathe.

Muscles in her stomach squeeze in and out to help **digest** her lunch. Digesting food breaks it down into parts her body can use.

Of course, Suzy's heart keeps beating even when she sleeps. Each time it beats, it pushes blood through her body.

If you sit very quietly, you can make some of your muscles stop working. But there are other muscles that keep working all the time. You can't make those muscles stop working.

Bigger and Better

Muscles like to move! It makes them big. It makes them strong. People who move a lot have nice, strong muscles.

Exercise is when you move your muscles. You exercise when you ride a bike. You exercise when you run and jump. Exercise makes your heart strong. That is because your heart is a muscle.

Muscles like to stretch. **Stretch** when you wake up. Stretch after you sit down for a long time. Stretch before you exercise.



Muscles Get Tired

Stand by your desk. March in place as if you were in a parade. Swing your arms and lift your knees up high! How long can you march before you feel tired?

If you use the same muscles over and over, they start to feel tired and sore. Rest the muscles for a few minutes. Soon, they will feel like new again!



Muscle Cramps

Sometimes, a muscle can get very tight. It will hurt, and you won't be able to move it. This is called a **muscle cramp**.

Going swimming in cold water can give you muscle cramps. If you get one, it will be very hard to swim. That's why you should never go swimming unless a grown-up is watching you.



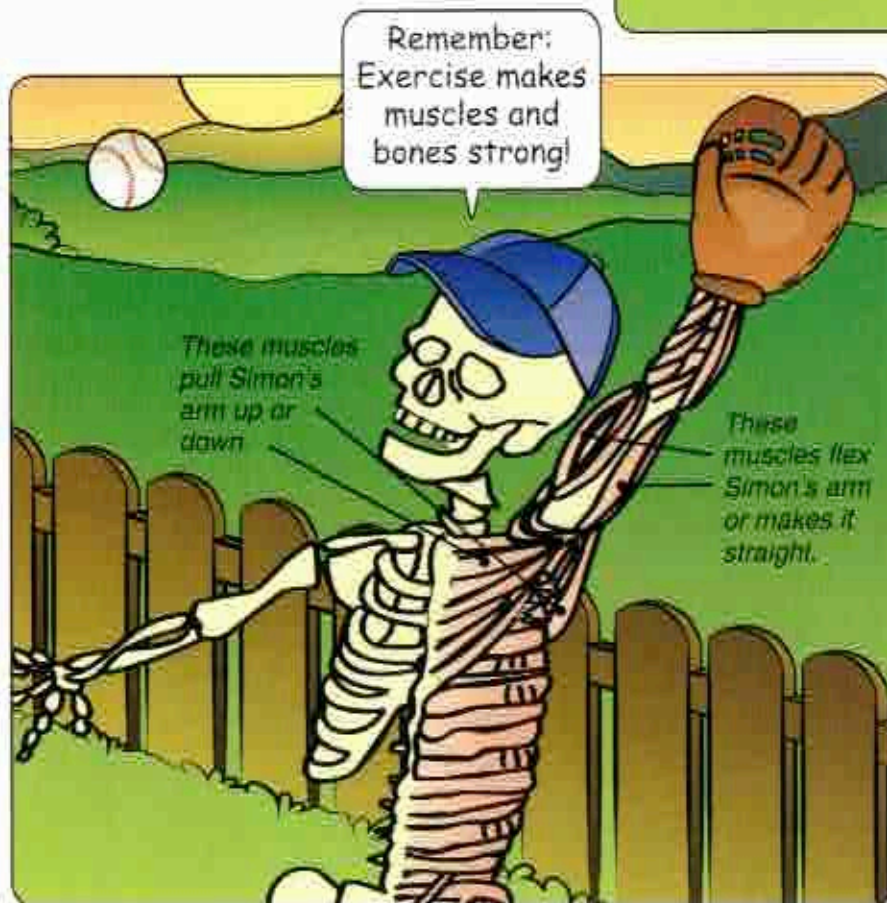
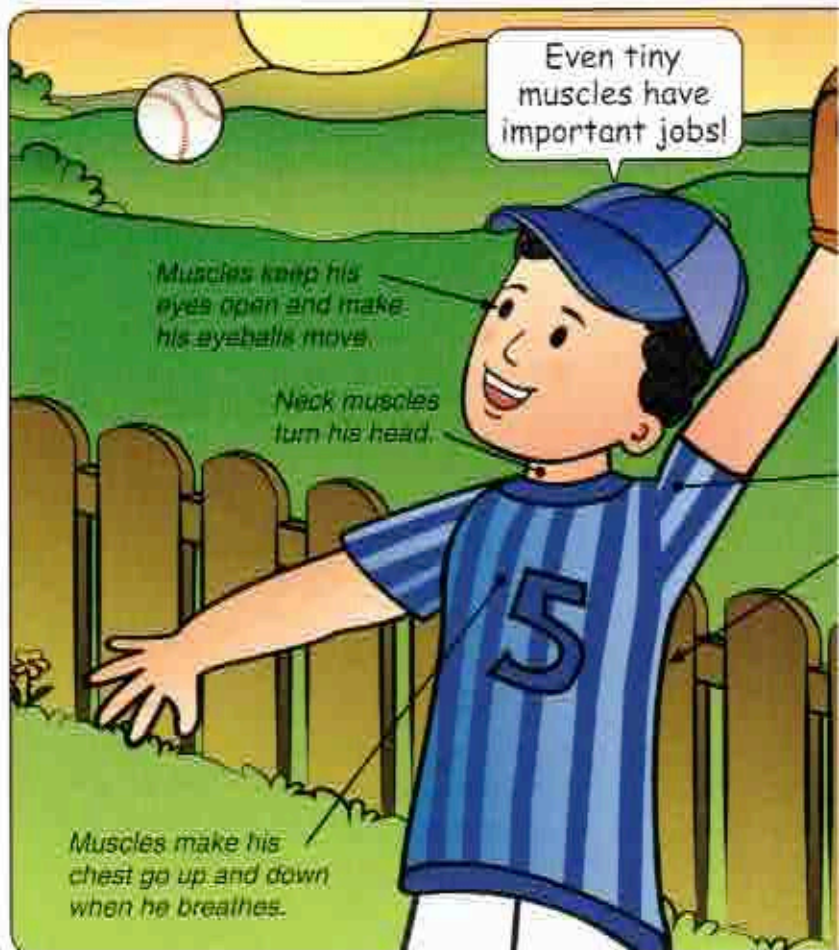
Working Together

Muscles and bones work together so you can move. Look at the picture of Simon. He is trying to catch a ball. His eye is on the ball. Can you find the muscles he needs to help him catch the ball?

Simon does not think about all of the muscles he is using. His brain does the work. His brain tells his muscles when to move. His brain tells his muscles when to stop.

Muscles work with bones to help you move. Muscles can't push! Muscles have to pull. Muscles pull Simon's arm bones to help him catch the ball.

All of your bones are called the **skeleton**. Look at the picture of Simon's skeleton. Which bones are his muscles moving? Color them blue. Can you feel the bones in your arm?



What Can Go Wrong

Some people have problems with their muscles. Some of their muscles don't work well. Some of their muscles don't work at all. People with muscle problems can still do a lot of things that are important.

What can this girl do to have fun?

What games can you play with your muscles?

Muscle Riddles

Guess who has more muscles—the big, strong man or the tiny baby?

Arm muscles get tired. Leg muscles, too. But one muscle keeps working the whole night through. It's the size of your fist. But, oh, it's so strong! It can pump all day and all night long! Can you guess the name of this muscle?

(Answers are on Page 7)

Shoulder and back muscles lift his arm.



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No Fighting

Color this picture of Cool Dude and Betsy. Then, color the circle and slash symbol red. This means "No Fighting!"



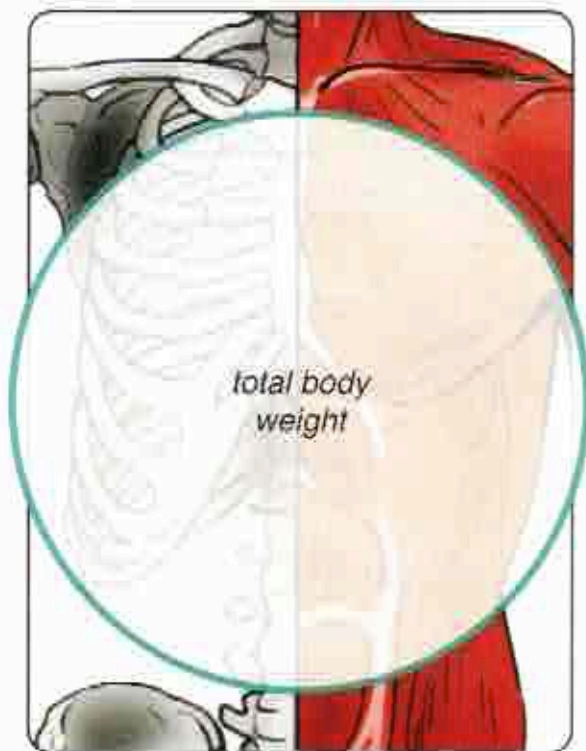
I keep my muscles good and strong. But I don't hit people—that would be wrong!



A Fast Math Fact

Muscles are just about one half of your total body weight.

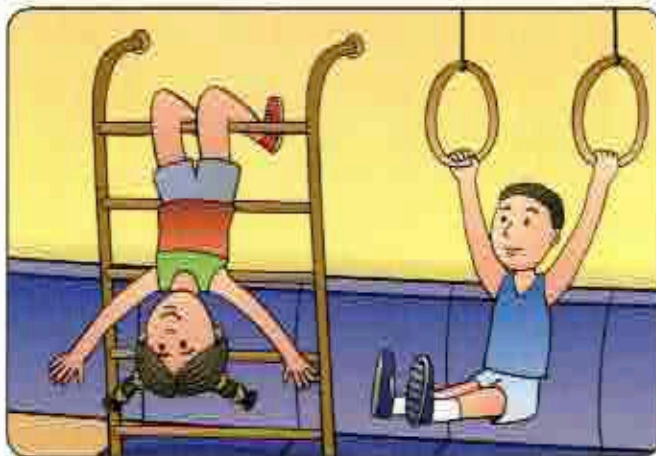
Have your teacher or parent help you color this pie chart to show one-half.



My Exercise Plan

What exercises do you like to do? List your top five favorite physical activities. Remember, you need at least 60 minutes of exercise every day to stay healthy and strong.

1. _____
2. _____
3. _____
4. _____
5. _____



Dear Dr. Smartstuff,

Why is it important to exercise?

Brooklyn
Troutdale, OR

Dear Brooklyn,

Thank you for your question. Exercising has a lot of health benefits. It strengthens your heart and even some of your bones. Exercising helps build muscle and burn fat. It also lets off hormones called endorphins, which can help you cope better with stress. Exercising does not have to be a chore. Many of the activities you already enjoy doing are good for your body. Willie loves to bike ride, Cool Dude swims, Betsy dances, and Simon is on a baseball team. What is your favorite activity? Write back soon!

Dr. Smartstuff

Write to Dr. Smartstuff at P.O. Box 7294, Wilton, CT 06897 or email him at DrSmartstuff@TheGreatBodyshop.net and please tell him your first name, grade, school, and school address.



Word Wise

muscles—the parts of your body that let it move

muscle cramp—a sharp pain that makes it hard to use a muscle

exercise—to be active and use your muscles. Exercise for 60 minutes each day

skeleton—all your bones together make up your skeleton.

digest—to break food down into the parts your body can use

stretch—to extend your body or limbs before or after exercise

Answers to "Muscle Riddles":

1. An adult man and a tiny baby both have the same number of muscles! The baby's muscles are just a lot smaller than the man's.
2. the heart

Strengths

What are your strengths? When we talk about strengths, we aren't just talking about muscles. Your strengths are the things that you are good at. We all have strengths. You may have strengths in school. Maybe you are a strong reader. Maybe you are a strong artist. Others may be strong in science or math.

If we know our strengths, we can use them to help us feel good about ourselves, or to work through things that are hard for us. For example, if you are good at reading, but not as good at science—you can use your strength in reading to read more books about science. This can help you get better at science.

What are your strengths?



Muscles in Motion

This month in THE GREAT BODY SHOP, your child learned about muscles and exercise. Please reinforce the material studied in school by discussing the subject at home. The lessons are:

- Lesson 1:** A Look at Muscles
- Lesson 2:** Getting Exercise
- Lesson 3:** Muscles Work in Teams
- Lesson 4:** What Can Go Wrong

Check Out Those Muscles

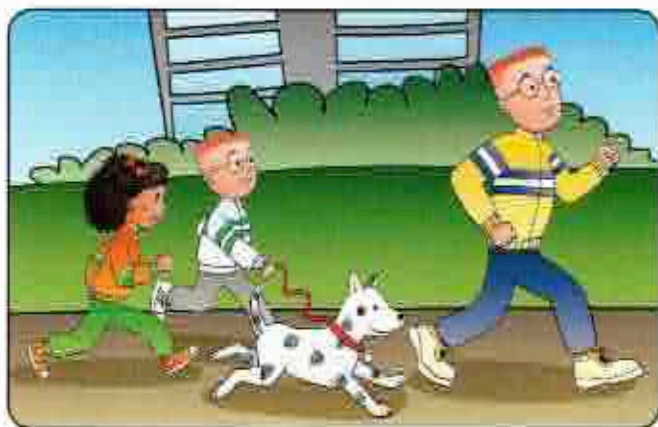
The next time you prepare chicken for dinner, peel the skin off one of the drumsticks and let your child examine the muscle (i.e. the meat). Note that it is attached to the bone with tough, white, elastic fibers. These fibers are tendons.

Note the blood vessels running throughout the meat. Blood brings nutrients (food) and oxygen to the muscles. Explain that these two things are the fuel the muscles need to work.

Word Wise Vocabulary Words

Now that your child has read THE GREAT BODY SHOP, have him/her try to finish these sentences. (answers below)

1. When a muscle gets tight and hurts, it is called a c _____ p.
2. Cold water can cause a muscle cramp. That is why we should never s _____ m alone.
3. Anything we do that uses our muscles and makes them work is called e _____ r _____ e.



Muscles Like to Work

Your child learned that muscles like to exercise. Exercise not only makes them stronger, it makes the whole body feel good!

Discuss different forms of exercise with your child. What does he/she like to do best? What kinds of exercise are possible where you live; i.e., is there a pool or skating rink or park in your neighborhood? What chores are also exercise (mowing the lawn, climbing up the stairs, sweeping or raking, etc.)?

All children—whether thin, heavy, or in-between—should have one hour or more of exercise every day. If your child does not, encourage more active play; you might start by buying a new ball or jump rope, by insisting that children play outside, or by suggesting games such as tag, hopscotch, or relay racing. And, since numerous studies have shown that there is a direct correlation between a child's fitness level and the hours of TV he/she watches, limiting television time would be a big help, too.



Read All About It

The Busy Body Book: A Kid's Guide to Fitness

by Lizzy Rockwell

Filled with kids busy on rollerblades, running, stretching, catching and throwing in the park. Includes clearly labeled diagrams with exciting scientific facts.

Exercise

by Liz Gogery and Mike Gordon Jou

Children learn how much fun it is to exercise when their grandmother visits.

Spriggles Motivational Books for Children: Activity & Exercise

by Jeff, Martha and Alexander Gottlieb

This is a fun book that encourages children to participate in physical activity.