

Our fifth lesson on our new animals and humans topic is all about the **muscles in our body**.

Read through the PowerPoint and work through the activities  $\odot$ 

Enjoy!

Love Miss Robertson xxx

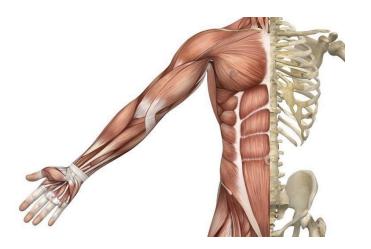
# What are Muscles?



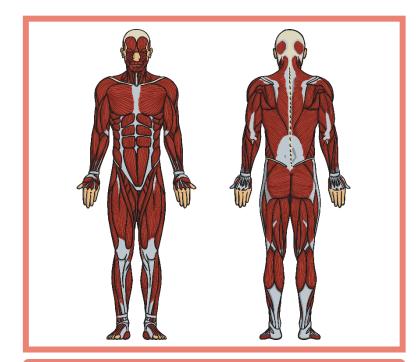
Muscles are how we move and live. All movement in the body is controlled by muscles.

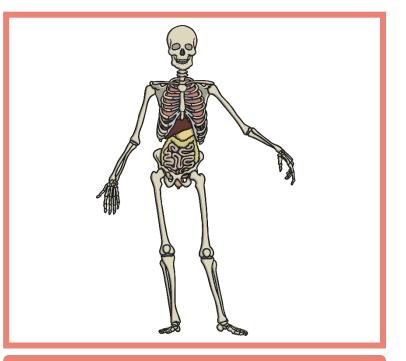
Some muscles work without us thinking, like our heart beating, while other muscles are controlled by our thoughts and allow us to do stuff and move around.

All of our muscles together make up the body's muscular system.



### Mighty muscles





Skeletal muscles are attached to bones and enable movement.

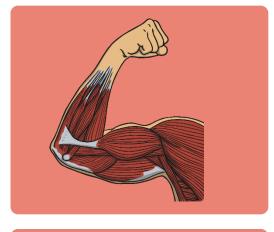
Some organs have muscle tissue. Which organs have muscles? (Hint: Think which organs move things around the body.)

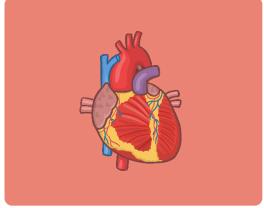
### **Voluntary and Involuntary**

Some muscle movement is voluntary and we can control it. Other muscle movement is involuntary and we don't have control over it.

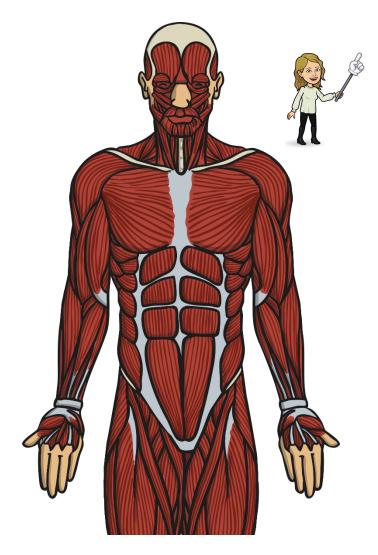
The heart is an example of an involuntary muscle. It is always beating but we don't have control over it.

Moving our legs or our arms is an example of voluntary muscle movement. We have control over it ©





### **Muscles work in pairs**



#### How do muscles work?

Muscles are attached to bones by tendons and help them to move.

When a muscle contracts (bunches up), it gets shorter and so pulls on the bone it is attached to. When a muscle relaxes, it goes back to its normal size.

Muscles can only pull and cannot push. Therefore muscles have to work in pairs to move a joint. One muscle will contract and pull a joint one way and another muscle will contract and pull it the other.

#### **Muscles in our body**

Shoulder muscles raise and lower the arms.

Abdominal muscles move the torso and help with breathing.

### The hamstring is found at the back of your thigh.

Shin muscles help move the foot up and down and side to side. Neck muscles hold the head up and move it in all directions.

> Triceps straighten the arm.

> > Biceps bend the arm.

Thigh muscles move the lower leg.

## Thigh muscles are also called the **quadriceps**.

Calf muscles pull the heel up and point the toes.



Can you think of any exercises that move these muscles?

#### Fun Facts about Muscles



- Shivering is caused by hundreds of muscles contracting and relaxing to produce heat and make us warmer.
- It takes 17 muscles to smile and 43 muscles to frown. All the more reason to smile instead of frown!
- Our longest muscle is the Sartorius. It runs from the hip to the knee and helps us bend the knee and twist our leg.
- The strongest muscle is in our jaw and is used for chewing.
- The smallest muscle is in our ear and is called the stapedius. It is attached to the smallest bone in the body, the stapes.

Read through the PowerPoint carefully. Grab a pen and paper and complete the following quiz ©

- 1. How many muscles does it take to smile?
- A. 1 million
- B. 1
- C. 17
- 2. Where is the strongest muscle in our bodies?
- A. Our brain
- B. Our jaws
- C. Our legs





3. What is the name given to the muscles that we don't have control over?

- A. Involuntary
- B. Voluntary
- C. The no control muscles
- 4. What is an example of an involuntary muscle?
- A. Arm
- B. Heart
- C. Leg



- 5. What statement is false?
- A. There is only 1 muscle in the human body
- B. The smallest muscle is our ears
- C. Muscles work in pairs

#### 6. What is the scientific name for the muscles in our arms?

- A. Elbow
- B. Quadriceps
- C. Triceps and biceps



7. How many muscles are there in the human body?

- A. 1 million
- B. About 600
- C. 1

8. What attaches muscles to bones?

- A. Sellotape
- B. Glue
- C. Tendons

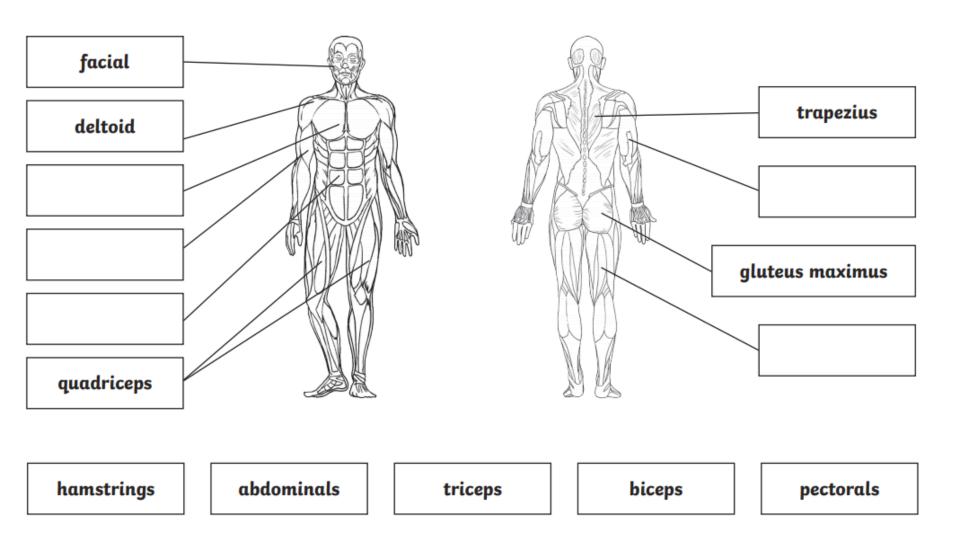


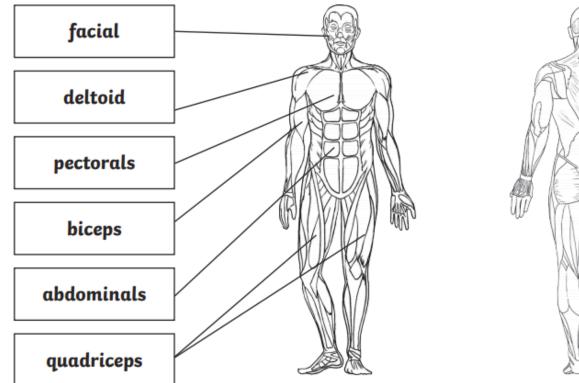
Why not make your own quiz for someone in your family to answer? ③

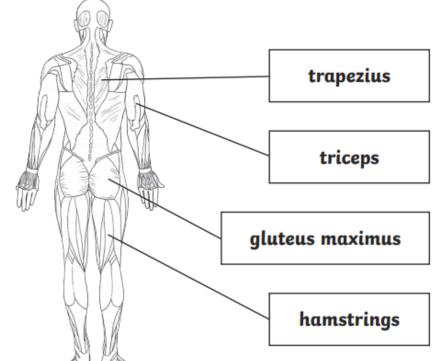
1. C 2. B 3. A 4. B 5. A 6. C 7. B 8. C **Activity:** Look carefully at the exercises/ movement activities below. Make a prediction about what muscles your body will use. Then, complete the activity, what muscles did you use? Use my example to help you and the muscles in our body picture on page 6.

Exercise:	Prediction:	Result:
Miss R's example: Hopping	I predict that I will use the muscles in my thighs and the muscles in my legs	I used the muscles in my thighs and in my shins. I also used the muscles in my arms for balance.
Reading a book		
Running on the spot		
Throwing a ball		
Skipping		

#### Activity 2: Have a go at labeling the different muscles in our body. The answers are on the next slide.









Thank you for working so hard. You are all superstars © Please send you work into yearthree@st-jo-st.dudley.sch.uk