

The background of the image is a detailed illustration of muscle tissue. It features numerous parallel, cylindrical muscle fibers in a reddish-brown hue. Each fiber is covered in fine, dark longitudinal lines representing striations. Small, oval-shaped nuclei are visible along the periphery of the fibers. Interspersed among the fibers are clusters of myofibrils, depicted as bundles of smaller, more textured units. The overall composition is dense and layered, creating a sense of depth and texture.

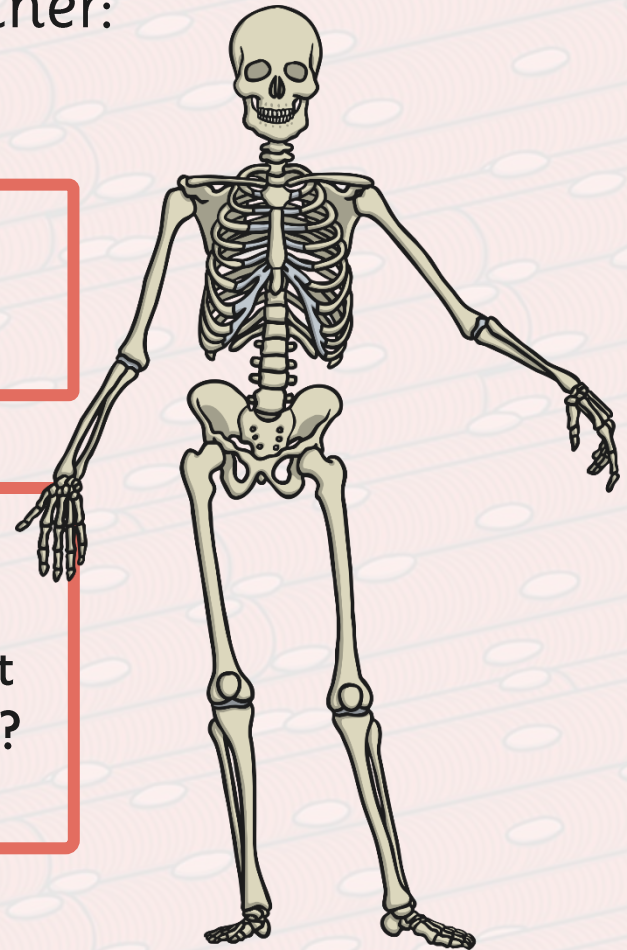
Mighty Muscles

Movement

Discuss with a partner:

How do skeletons move the body?

Along with our bones, and our brains sending messages to the body parts, what else do we need to make our bodies move?

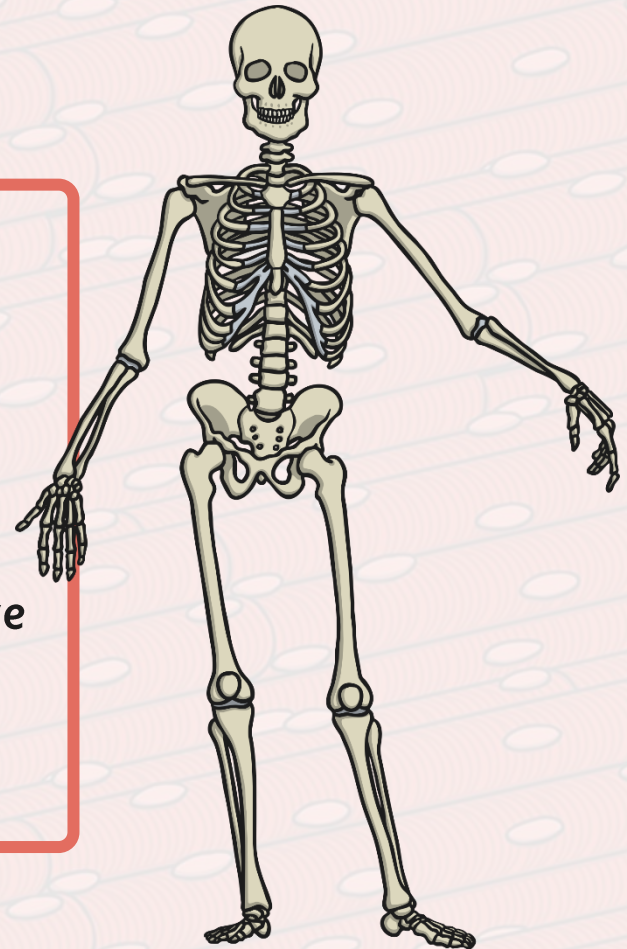


Movement

ANSWER

We need **MUSCLES** to move our bodies!

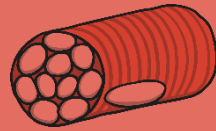
The brain sends messages to pairs of muscles, which work together by contracting and relaxing in order to move the bones of the body.



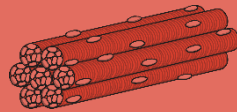
What are Muscles?

Muscles are tissues!

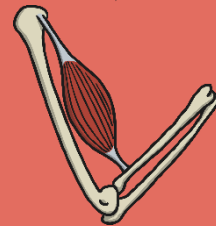
Our bodies are made up of different types of cells



Cells form to make tissue



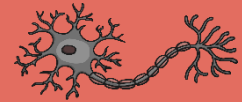
Skeletal muscles are made up of just muscle tissue



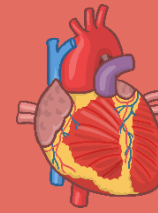
smooth muscle cell



bone cell

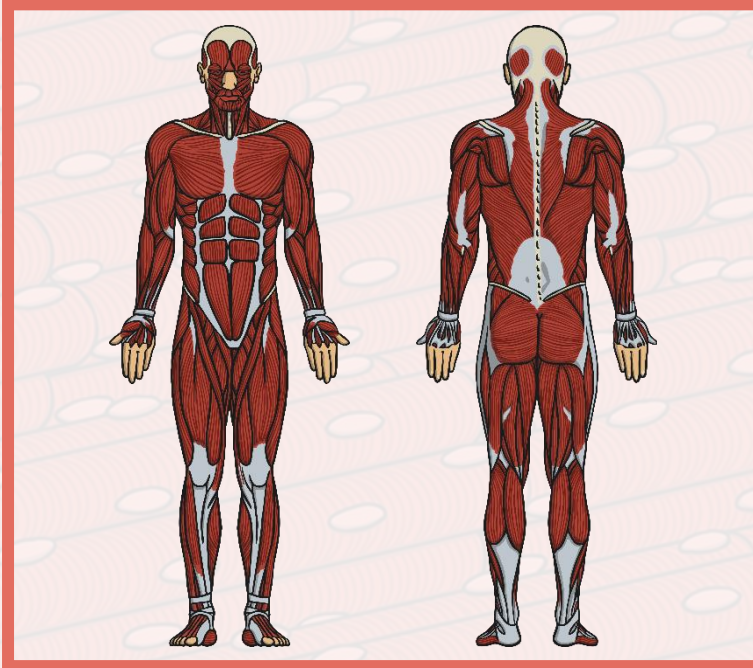


nerve cell



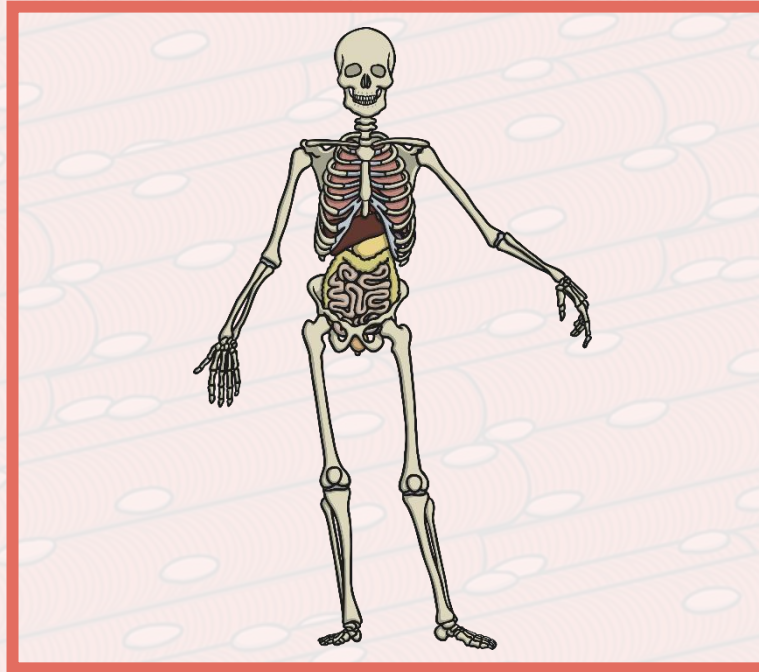
Organs are made up of more than one type of tissue

Mighty Muscles



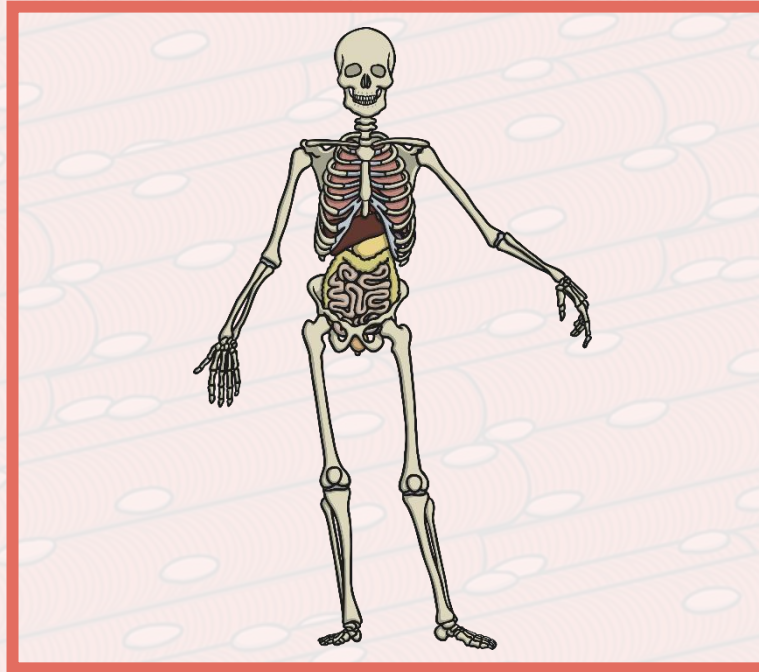
Skeletal muscles are attached to bones and enable movement.

Mighty Muscles



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

Mighty Muscles – ANSWER



Your heart, digestive system and blood vessels all have muscle tissue.

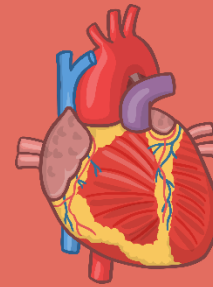
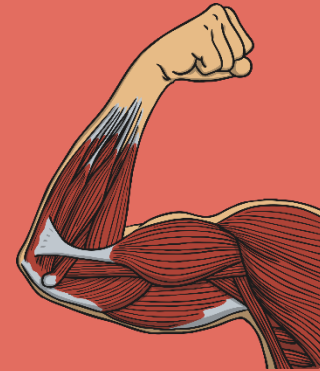
They use this muscle tissue to pump blood around the body and food through the intestines.

Voluntary and Involuntary

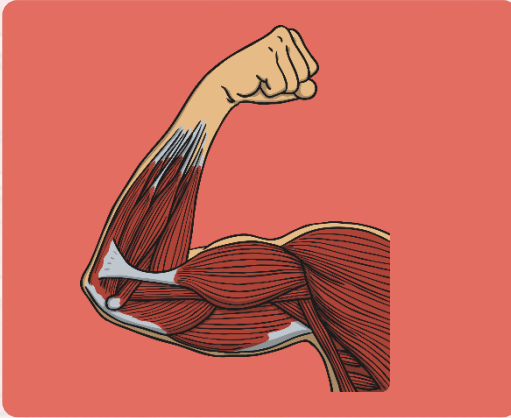
Some muscle movement is voluntary and we can control it. Other muscle movement is involuntary and we don't have control over it.

Look at the pictures to the right: Which shows voluntary muscle movement and which shows involuntary?

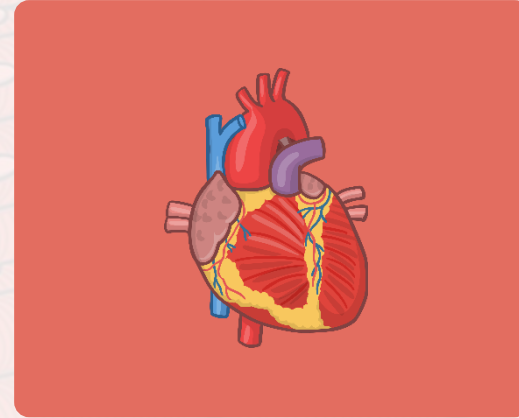
Discuss with your partner and explain why you made your choice.



Voluntary and Involuntary ANSWERS



Moving your arm is a voluntary muscle movement because you can decide when and how to bend and extend your arm.



Your heart beating is an involuntary muscle movement because the muscles within your heart are constantly contracting and relaxing in order to pump blood around the body, without you having to do anything.