


Muscles

Worksheets

Name: _____




Vocabulary Review

The tissues of muscles are made up of fibers which contract and relax. Muscles are responsible for movement. Review the following words linked to muscles, then use them in meaningful, original sentences.


FIBER _____

Name: _____



Fact or Bluff

Read the following statements about muscles carefully. If the statement is a fact, shade the circle **YELLOW**. If the statement is a bluff, shade the circle **BLUE**.



All the muscles in the body look the same.

Muscles are made up of fibers, tendons, nerves, blood vessels, and connective tissue.

There are four types of muscle tissue.

There are 700 named muscles that are attached to the skeletal system.


The cells of a cardiac muscle form a striated pattern.

Skeletal muscles are also called smooth muscles.

Visceral muscles are the strongest of all muscle tissues.

MUSCLES WORKSHEETS

Name: _____



Comparing Types

Compare and contrast the different types of muscle tissues. List their characteristics as well as their uses.

VISCERAL

CARDIAC

Similarities

MUSCLES WORKSHEETS

SKELETAL
KIDSKONNECT.COM

Free Sample

Thank you so much for downloading the sample resource.

We hope it has been useful for you in the classroom and that your students enjoy the activities.

KidsKonnnect is a very small family run business and we are proud that we can offer education to over 40 countries globally. The more support we have from our [Premium members](#) the more resources we can release.

If you want the more comprehensive and detailed worksheet collection then please [upgrade](#) to our Premium plan and support our quest to make education affordable for all.

Don't forget to [come back](#) and download the new material we add every week!

Thanks for supporting KidsKonnnect. We can provide teachers with low-cost, high-quality teaching resources because of our loyal subscribers and hope to serve you for many years to come.

- Ryan, Beth & Nicola :)

Muscles Facts



Muscles are made up of a bundle of fibrous tissue in an organism that is able to contract and relax. Muscles produce movement or maintain the position of parts of the body. The human body's weight is 40% muscles. Together there are muscle groups that forms the whole muscular system.

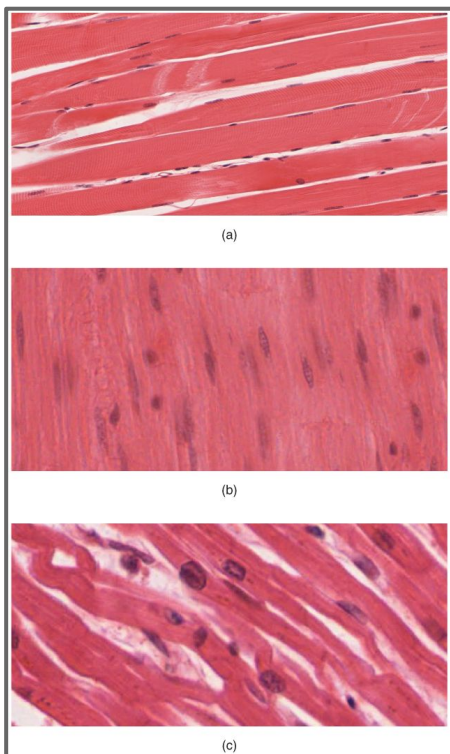
NUMBER OF MUSCLES IN THE HUMAN BODY

- ★ There are **700 named muscles** that are attached to the *skeletal system* or the bones.
- ★ Muscles are responsible for movement.
- ★ All of these muscles are distinct from each other.
- ★ Each of these muscles are made up of tissues, blood vessels, tendons, and nerves.
- ★ All of these are utilized to transport signals, chemicals and substances through the body.



Muscles Facts

TYPES OF MUSCLES



Attribution: OpenStax College - Anatomy & Physiology, Connexions / CC BY 4.0

Images of the different types of muscle tissue: (a) skeletal muscle, (b) visceral muscle, and (c) cardiac muscle.

- ★ There are three types of muscles: **Visceral muscles, Cardiac muscles, and Skeletal muscles.**

VISCERAL MUSCLES

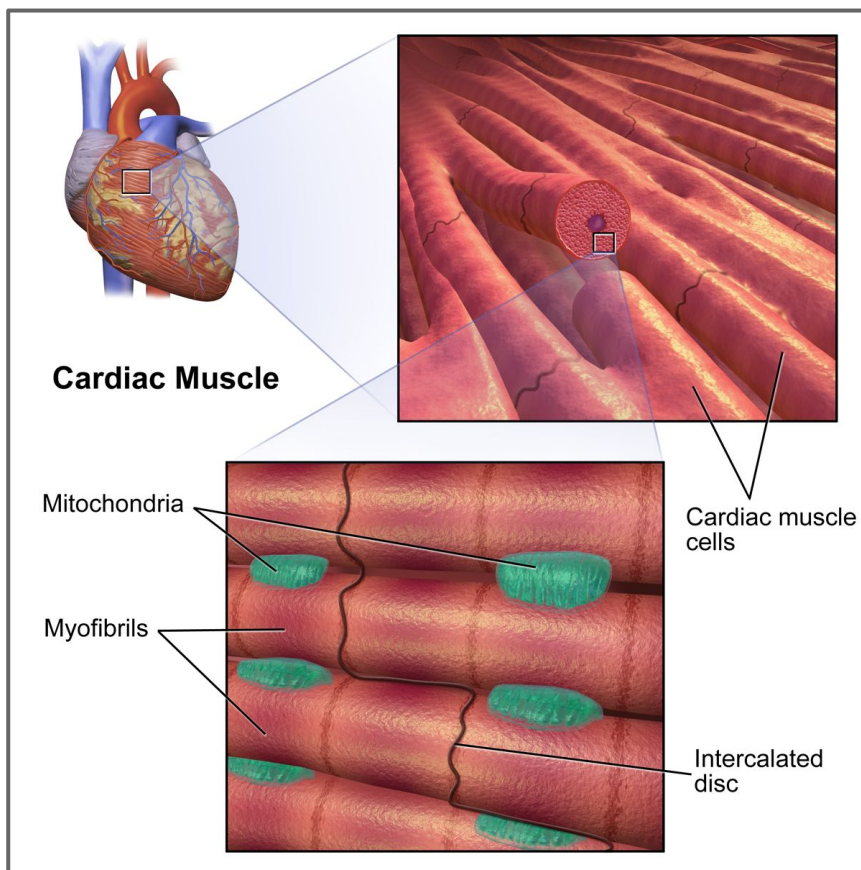
- ★ **Visceral** muscles, also known as smooth muscles, are muscles found inside the organs like the intestines and blood vessels.
- ★ A visceral muscle is considered the weakest of all muscle tissue.
- ★ Visceral muscles contract to move substances through the organ.
- ★ They are also known as *involuntary muscles* as it is controlled by the unconscious part of the brain.
- ★ You cannot control it nor stop its movement at will. It functions by itself.
- ★ Visceral muscles are uniform in appearance in a microscopic perspective, which is why it is often described as the *smooth muscle* compared to the banded appearance of the cardiac and skeletal muscles.



Muscles Facts

CARDIAC MUSCLES

- ★ **Cardiac muscles** are only found **inside the heart**, and it is responsible for our heartbeats.
- ★ It is also involuntary, but hormones and signals from the brain could regulate or adjust the rate of contraction.
- ★ The cardiac muscle *stimulates itself* to contract.
- ★ A **pacemaker** is a device installed to the heart of a person who has an irregular heartbeat.
- ★ A pacemaker is only an artificial replacement for the real thing.
- ★ The natural pacemaker of the heart is also made up of cardiac muscles, it stimulates other cardiac muscles to contract.



Attribution BruceBlaus / Wikimedia Commons / CC BY-SA 4.0

Image of a magnified cardiac muscle

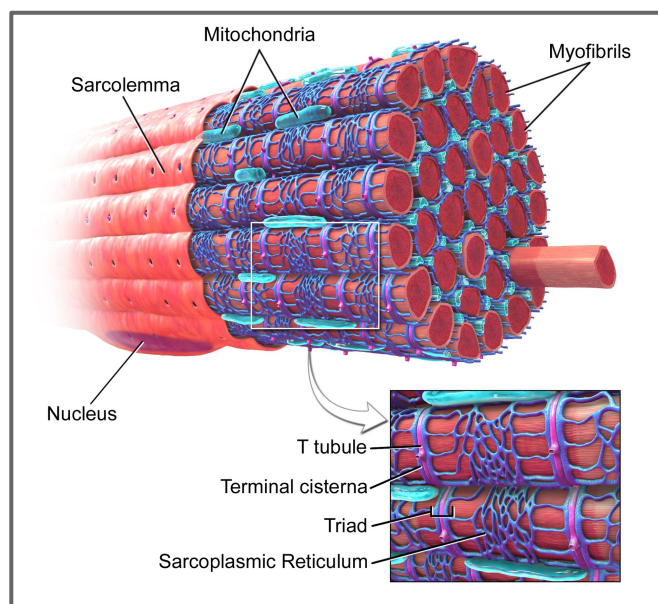


Muscles Facts

- ★ The Cardiac muscle is called **autorhythmic** because of its self-stimulation.
- ★ When viewed under a microscope, the cells of the cardiac muscles appear to have light and dark stripes.
- ★ This is a *striated pattern*, and striations indicate that a muscle is **very strong**.
- ★ Creatively enough, the cells of cardiac muscles are branched X or Y shaped cells tightly joined together by a unique junction called *intercalated disks*—this connection looks like fingers interlocking, bonding two cells strongly.

SKELETAL MUSCLES

- ★ The **Skeletal Muscle** is the only muscle that is controlled voluntarily.
- ★ Every physical movement done by an individual at will or consciously is utilizing the skeletal muscles.
- ★ The movement or function of the skeletal muscle is to contract to move the parts of the body closer to the bone it is attached to.
- ★ Usually, a skeletal muscle is attached to two bones across the joint, allowing the muscle to move parts of the bones closer to each other.



Attribution BruceBlaus / Wikimedia Commons / CC BY 3.0

3D image of a skeletal muscle fiber



Muscles Facts

- ★ A progenitor cell is a cell that could form into one or more kinds of cell.
- ★ The muscle is made up of lumps of progenitor cells.
- ★ Together, these progenitor cells form a long, straight, multinucleated fiber.
- ★ Skeletal muscles are also striated, so they are very strong.
- ★ Skeletal muscles are not inside the bone, but the name is derived due to the fact that they are always attached to the skeleton in at least one place.
- ★ Most muscles are glued to the bones via **tendons**.
- ★ Tendons are tough bands of dense regular connective tissue whose strong collagen fibers firmly attach muscles to bones.

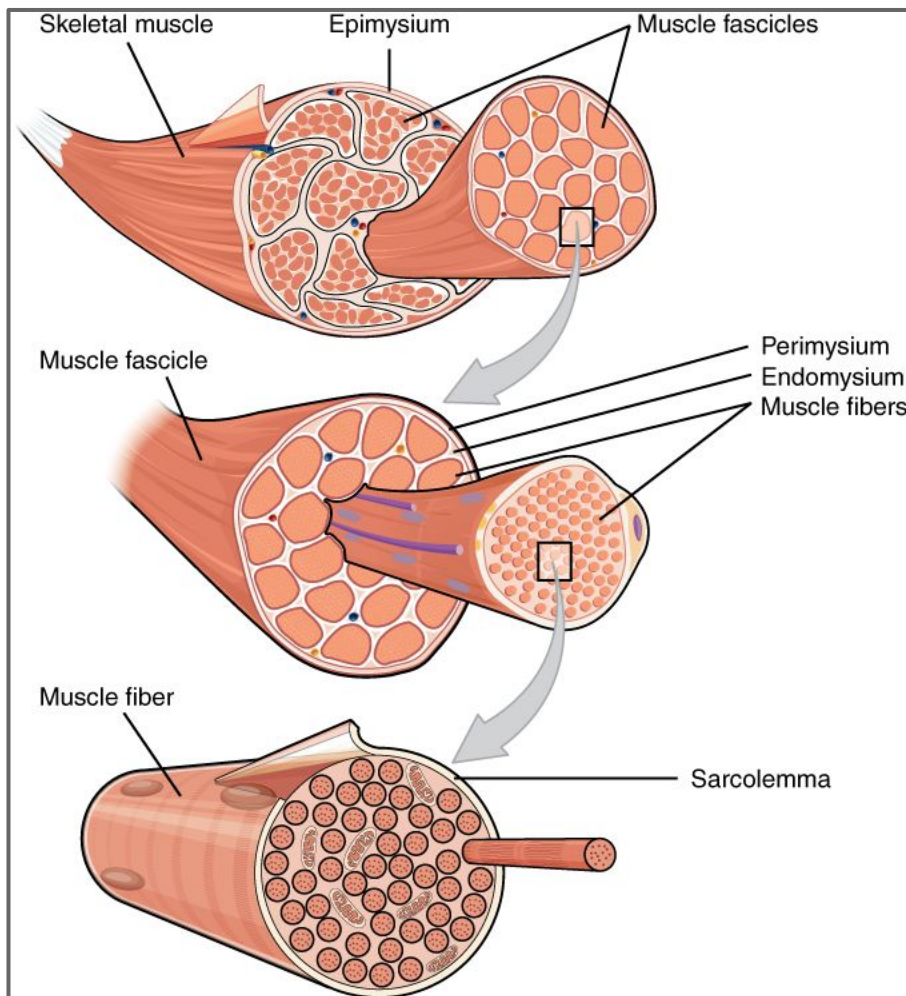
NAMING SKELETAL MUSCLES

- ★ Skeletal muscles could be named according to their location, origin, and insertion, number of origins, shape, size, direction, and function.
- ★ **Location** — muscles derive their names according to their anatomical region. For example, the *rectus abdominis* and *transversus abdominis* are found in the abdominal region.
- ★ Some muscles are named after the part of the bone they are attached to. Take *tibialis anterior* for example, named after the anterior portion of the tibia, a bone in the lower-leg.
- ★ **Origin and Insertion** — muscles named based on their connection to a stationary bone as their origin, and a moving bone as their insertion. An example is the *sternocleidomastoid* that connects the *sternum* and *clavicle*, and found on the side of the neck.
- ★ **Numbers of Origins** — muscles connected to more than one bone. Like the biceps with 2 origins, the triceps with 3, and quadriceps with 4.



Muscles Facts

- ★ **Shape, Size, Direction** — The *deltoid* is named after its delta or triangular shape. The *gluteus maximus*, *gluteus medius*, and *gluteus minimus* are all found in one region, and are *large*, *medium*, and *small* correspondingly. The *rectus abdominis* runs straight up and down. The *transversus abdominis* runs from left to right.
- ★ **Function** — the *flexor* muscles flex the wrist and the fingers. The *supinator* is a muscle that supinates the wrist, enabling it to roll over to face palm up.



Attribution: OpenStax / Wikimedia Commons / CC BY 4.0

3D image of a skeletal muscle fiber

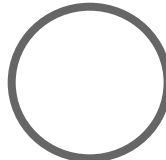
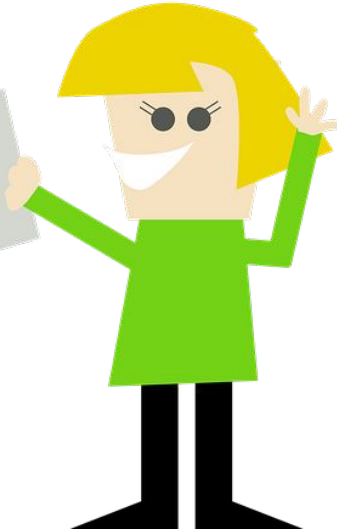


Name: _____

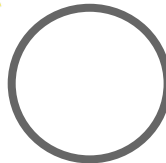


Fact or Bluff

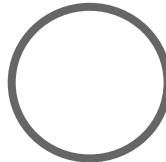
Read the following statements about muscles carefully. If the statement is a fact, shade the circle **YELLOW**. If the statement is a bluff, shade the circle **BLUE**.



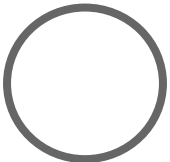
All the muscles of the body look the same.



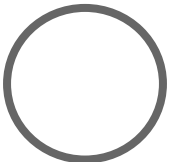
Muscles are made of tendons, nerves, blood vessels, and lungs.



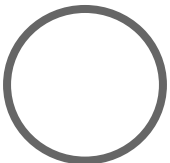
There are four types of muscles.



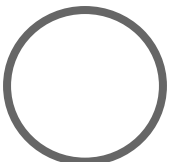
There are 700 named muscles that are attached to the skeletal system.



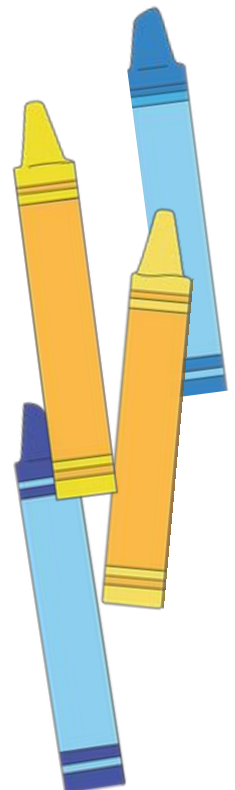
The cells of a cardiac muscle form a striated pattern.



Skeletal muscles are also called smooth muscles.



Visceral muscles are the strongest of all muscle tissues.

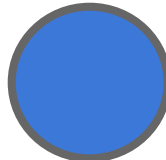
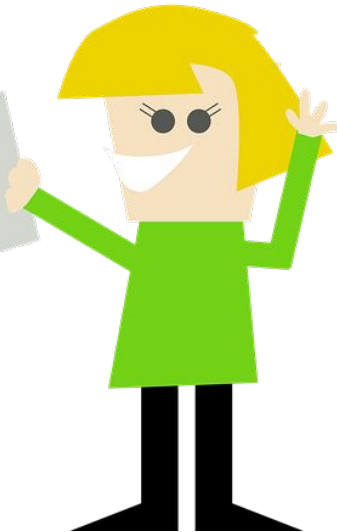


Name: _____

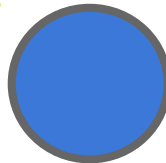


Fact or Bluff

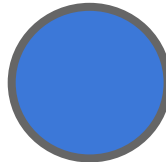
ANSWER KEY



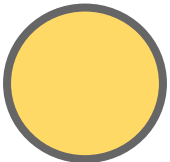
All the muscles of the body look the same.



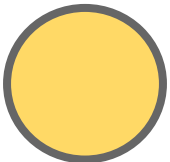
Muscles are made of tendons, nerves, blood vessels, and lungs.



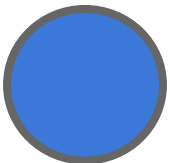
There are four types of muscles.



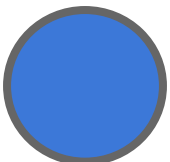
There are 700 named muscles that are attached to the skeletal system.



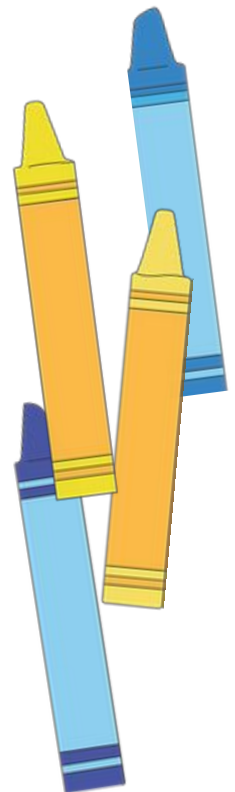
The cells of a cardiac muscle form a striated pattern.



Skeletal muscles are also called smooth muscles.



Visceral muscles are the strongest of all muscle tissues.



Copyright Notice

This resource is licensed under the [Creative Commons Attribution-NonCommercial 4.0](https://creativecommons.org/licenses/by-nc/4.0/) International license.

You are free to:

- **Share** — copy and redistribute the material in any medium or format
- **Adapt** — remix, transform, and build upon the material

Under the following terms:

- **Attribution** — You must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.
- **NonCommercial** — You may not use the material for commercial purposes.

For more information on this license, visit the following link:

<http://creativecommons.org/licenses/by-nc/4.0/>

Where possible, free-use images are sourced from online repositories such as Wikipedia and Wikimedia Commons. References and sources for images are provided in the speaker notes section of this document.

Thank you!

