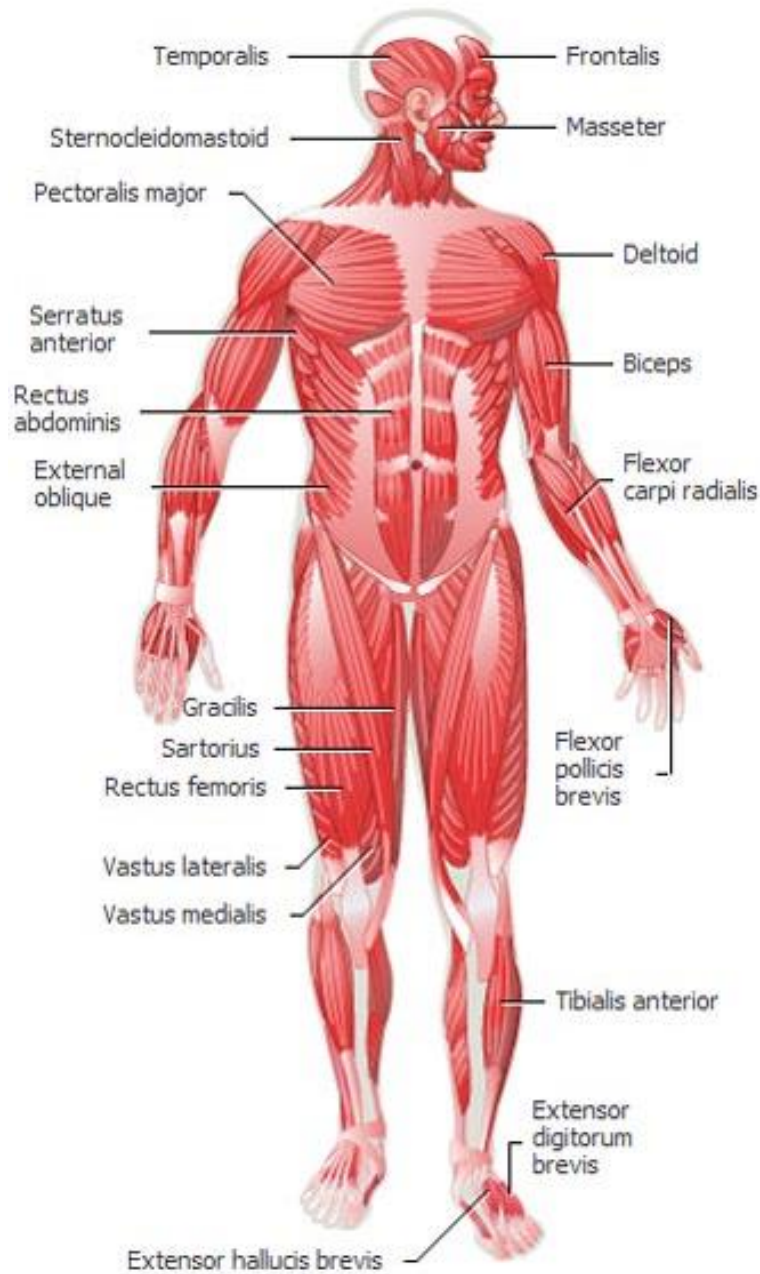


Muscular System Lapbook



Muscular System Lapbook
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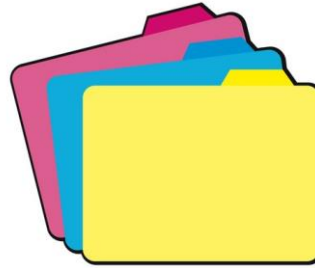
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Special thanks to Carrie Martin-Vegue. She is the author of the Study Guide that is included in this product. The Study Guide is being used with her permission and is now owned by Knowledge Box Central.

How do I get started?

First, you will want to gather your supplies.



*** Assembly:

***Folders:** We use colored file folders, which can be found at Walmart, Sam's, Office Depot, Costco, etc. You will need between 1 and 4 file folders, depending on which product you have purchased. You may use manila folders if you prefer, but we have found that children respond better with the brightly colored folders. Don't worry about the tabs...they aren't important. Within this product, you will be given easy, step-by-step instructions for how to fold and assemble these folders. *If you prefer, you can purchase the assembled lapbook bases from our website.*

***Glue:** For the folder assembly, we use hot glue. For booklet assembly, we use glue sticks and sometimes hot glue, depending on the specific booklet. We have found that bottle glue stays wet for too long, so it's not a great choice for lapbooking. For gluing the folders together, we suggest using hot glue, but **ONLY** with adult supervision. These things get **SUPER** hot, and can cause **SEVERE** burns within seconds.



***Other Supplies:** Of course, you will need scissors. Many booklets require additional supplies. Some of these include metal brad fasteners, paper clips, ribbon, yarn, staples, hole puncher, etc.



You may want to add decorations of your own, including stickers, buttons, coloring pages, cut-out clipart, etc. Sometimes, we even use scrapbooking supplies. The most important thing is to use your imagination! Make it your own!!



Ok. I've gathered the supplies. Now how do I use this product?

Inside, you will find several sections. They are as follows:

1. **Layout and Pictures:** This section gives instructions and diagrams that will tell the student exactly how to assemble the lapbook base and where to glue each booklet into the base. Depending on the student's age, he or she may need assistance with this process, especially if you choose to allow the student to use hot glue.

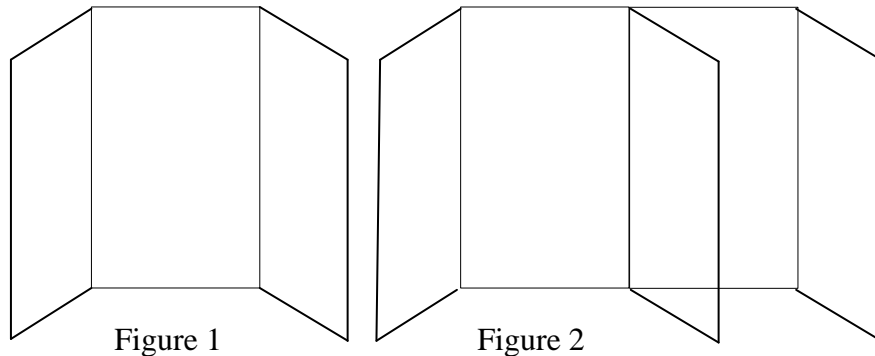
2. **Student Instruction Guide:** This section is written directly to the student, in language that he or she can understand. However, depending on the age of the child, there may be some parent/teacher assistance needed. This section will also tell the student exactly what should be written inside each booklet as he or she comes to it during the study, as well as telling the student which folder each booklet will be glued into.

3. **Booklet Templates:** This section includes ALL of the templates for the booklets. These have been printed on colors that will help to improve retention of the information presented, according to scientific research on color psychology.

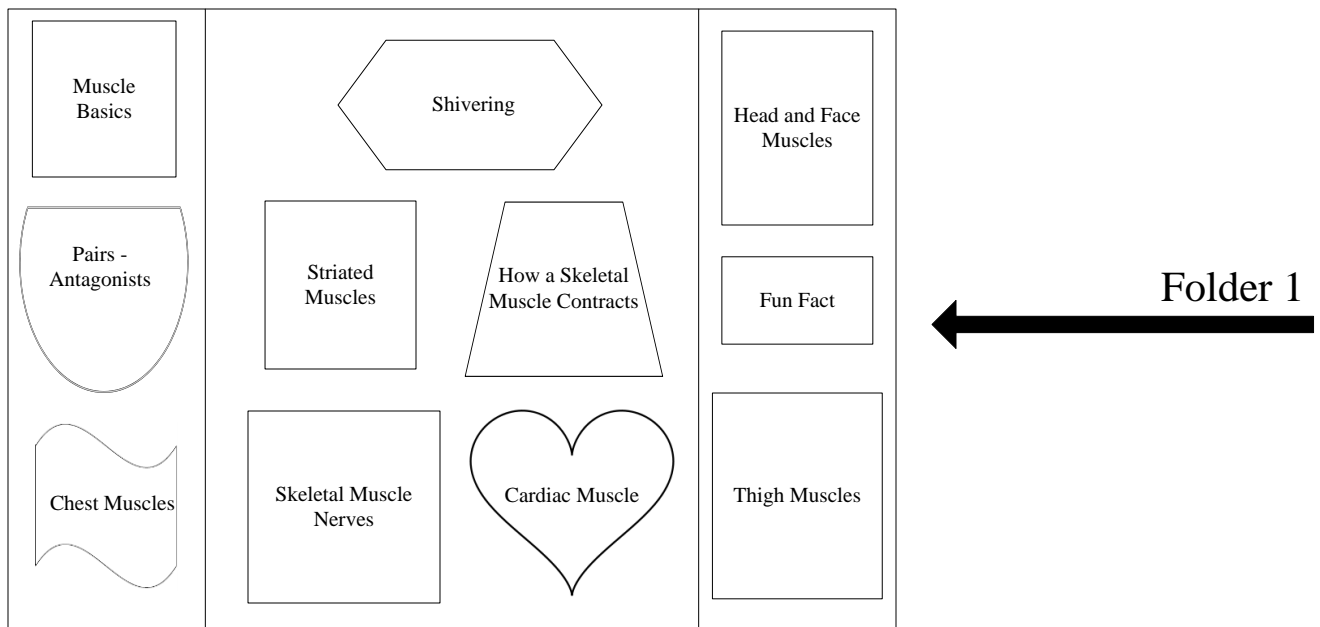
Muscular System Lapbook

Layout & Pictures

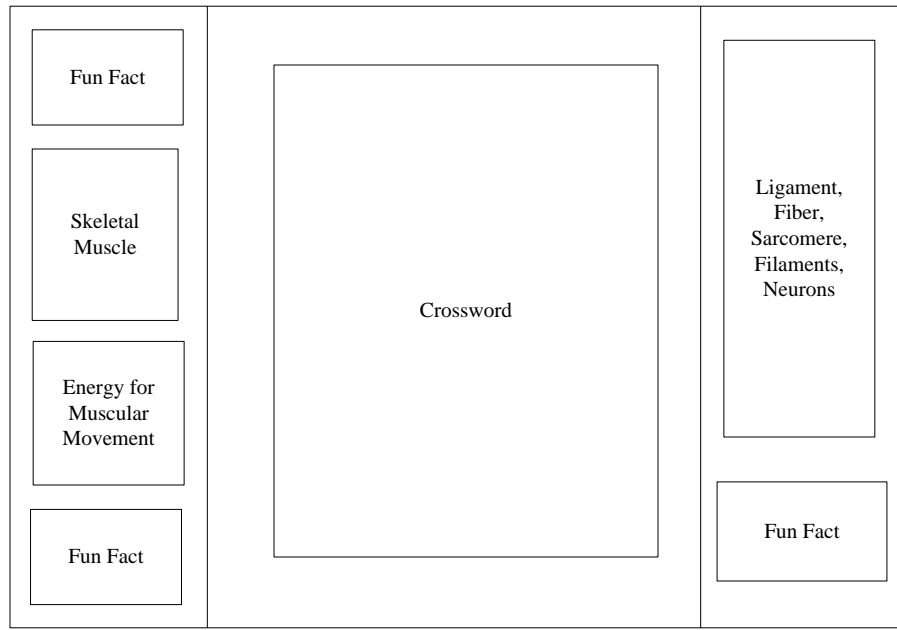
You will need 3 folders of any color. For each folder, you will fold both sides toward the original middle fold and make firm creases on these folds (Figure 1). Then glue the folders together along one flap (Figure 2).



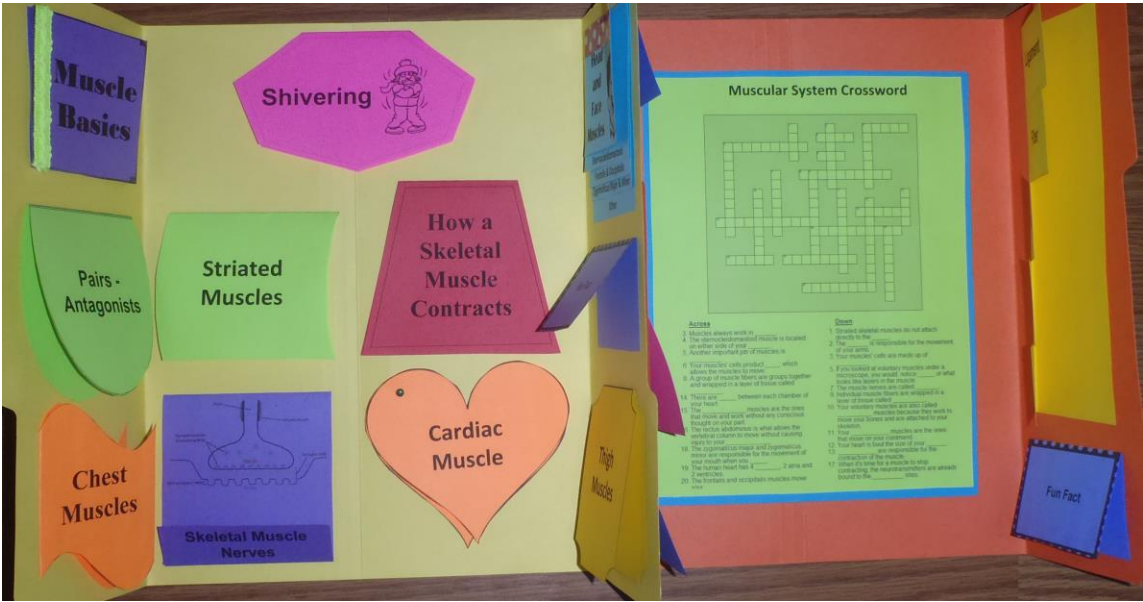
This is the “Layout” for your lapbook. The shapes are not exact on the layout, but you will get the idea of where each booklet should go inside your lapbook.



Folder 2



Below is a picture of a completed lapbook!!! This should help in figuring out how to assemble the booklets and then how to put it all together!



Folder 1




Fun Fact

Skeletal Muscle **Relaxation**

Energy for Muscular Movement

Fun Fact

Muscular System Crossword



Across

1. Muscles where you sit.
2. The diaphragm (diaphragm) is located on either side of the _____.
3. Another important part of skeletal is _____.
4. Your muscle cells produce _____ which is what the muscle fibers use to contract together and wrapped in a layer of tissue called _____.
5. There are _____ between each of fibers of _____.
6. The _____ muscles are the ones that move your head _____ without any conscious thought on your part.
7. The _____ is the structure in what allows the skeletal system to move without causing pain or hurt.
8. The _____ and _____ are responsible for the movement of your mouth when you _____, _____ and _____.
9. The _____ and _____ muscles move your _____.

Down

1. Skeletal muscle fibers do not attach _____.
2. Skeletal is the responsible for the movement of your _____.
3. Your muscle cells are made up of _____.
4. _____ of skeletal muscles under a microscope, they look like _____ or what looks like fibers in the muscle _____.
5. The _____ are called _____.
6. Individual muscle fibers are wrapped in a _____ of tissue called _____.
7. _____ muscles are called _____.
8. _____ muscles are attached to other _____.
9. _____ muscles are the ones that _____.
10. _____ are responsible for the _____ of your _____.
11. _____ are responsible for the _____ of the muscle _____.
12. _____ are responsible for the _____ of the muscle _____.
13. _____ are responsible for the _____ of the muscle _____.
14. _____ are responsible for the _____ of the muscle _____.
15. _____ are responsible for the _____ of the muscle _____.
16. _____ are responsible for the _____ of the muscle _____.
17. _____ are responsible for the _____ of the muscle _____.
18. _____ are responsible for the _____ of the muscle _____.
19. _____ are responsible for the _____ of the muscle _____.
20. _____ are responsible for the _____ of the muscle _____.

Ligament

Fiber

Sarcomere

Filaments

Neurons

Fun Fact

← Folder 2

Muscular System Lapbook

Student Instruction Guide

Booklet 1: Muscle Basics

Assembly Instructions: Cut out along the outer black line edges of each page of the booklet. Stack so that the title is on the front. Secure along the left side with staples. Glue booklet into folder #1 (see layout).

Completion Instructions: Your muscular system plays a very important role in your everyday life. Inside this booklet, fill in the blanks to tell about these muscles.

Booklet 2: Shivering

Assembly Instructions: Cut out along the outer black line edges of the booklet. Fold in the center so that the title is on the front. Glue booklet into folder #1 (see layout).

Completion Instructions: What happens when you get really cold? You shiver! Did you know that your muscles have something to do with this? Explain inside the booklet.

Booklet 3: Pairs - Antagonists

Assembly Instructions: Cut out along the outer black line edges of the booklet. Fold along the center line so that the title is on the front. Glue booklet into folder #1 (see layout).

Completion Instructions: Did you know that muscles work in pairs? Inside this booklet, explain what “antagonists” means and explain how this works.

Booklet 4: Head and Face Muscles

Assembly Instructions: Cut out along the outer black line edges of each page. Stack so that the title is on top and the tabs on the pages get longer toward the back. Secure along the top with staples. Glue booklet into folder #1 (see layout).

Completion Instructions: Inside this booklet, tell what you have learned about the muscles of the head and neck.

Muscle Basics

Your muscles' cells
are made up of
_____.

You have
approximately
_____ muscles in
your body. They
make up ___% of
your body weight.

There are 3 types
of muscles in your
body:

_____,
_____, &
_____.



Ligament

Fiber

Sarcomere

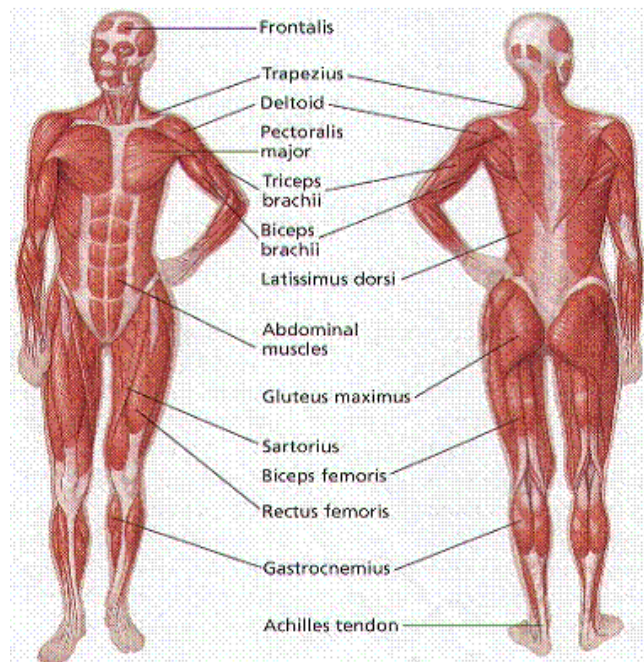
Filaments

Neurons

The Muscular System

Lapbook

Teacher's/Study Guide



<http://www.fi.edu/hltc/teachers/hockstein/infmusc.htm>

Introduction

Your muscular system plays a very important role in your everyday life. Without your muscles, you would not be able to play, run, or jump. Without your muscles, you would not even be able to survive. Your heart is a muscle which continually pumps to circulate blood throughout your body. Your diaphragm is a muscle that plays a vital role in your ability to breathe. Without the muscles in your body, you would not be alive.

Your muscles' cells are made up of protein. Their job is allow you to exert force and to move, and they can be found throughout your entire body.

You have approximately 640 muscles in your body and they make up approximately 40% of your body weight. There are three types of muscles in your

body: the cardiac muscle, which is your heart, voluntary, and involuntary muscles. The involuntary muscles are the ones that move and work without any conscious thought on your part. Your diaphragm is an example of that. Your voluntary muscles are ones that move on your command. For example, if you want to jump up out of your seat and run outside you would be using your voluntary muscles.

Your voluntary muscles are also called skeletal muscles because they work to move your bones. They are attached to your skeleton.

Another important job of muscles is shivering. When you get cold, you start to shiver. As you shiver, your muscles are moving which produces heat helping your body to warm up.

Muscles always work in pairs. These muscles are called antagonists because they perform opposite actions. When one contracts, the other relaxes and vice versa. Muscles can only pull. They cannot push. For example, when you bend your arm the biceps muscles pulls your arm up. When you are ready to lower your arm, the triceps muscle pulls it down.

Now, there is no way we could cover all 640 muscles in this short space. However, we are going to look at some of the muscles found throughout your body to give you an idea of how important they are to you.

Head and Face Muscles

The sternocleidomastoid muscle is located on either side of your neck and it is responsible for rotating and flexing your head. The frontalis and occipitalis muscles move your eyebrows. They also allow you to wrinkle up your forehead. The zygomaticus major and the zygomaticus minor are located near your mouth and they are responsible for the movement of your mouth when you smile.

There are many more muscles located in your neck, face, and head. These muscles are very important and you use them every single day as you talk. Have you ever noticed how you can “read” someone’s facial expressions and know precisely what mood they are in? This is because of the many muscles located in your face that allow you to make a variety of facial expressions for any mood that you are feeling.