

The MUSCULAR SYSTEM

Learning Goal:

Types of muscle tissues



How muscle contraction works

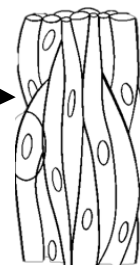


MUSCLE TISSUE

is made up of

MUSCLE

These fibres are the



There are 3 types of muscle tissue:

1.

MUSCLE TISSUE

2.

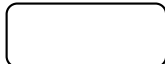
MUSCLE TISSUE

3.

MUSCLE TISSUE



It's in the



The MUSCLE fibres are:

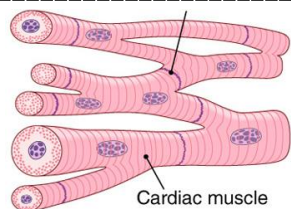
- ✓
- ✓
- ✓



Each fibre has a



At the end of the fibres are



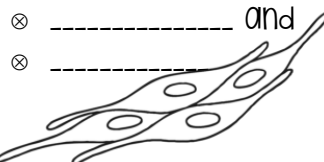
Cardiac muscle

Helping the cardiac muscle tissue to

In an organized pattern



Doesn't have



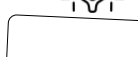
Each fibres has



They are
meaning they are in
the then



you'll find them in the

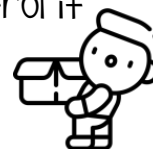


Attaches to

or

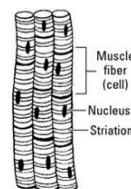
Is involved in control

you can control it



The MUSCLE fibres are:

- ✓
- ✓
- ✓
- Are (have multiple nuclei)



Muscle fiber (cell)
Nucleus
Striation



MUSCLE TISSUE control is

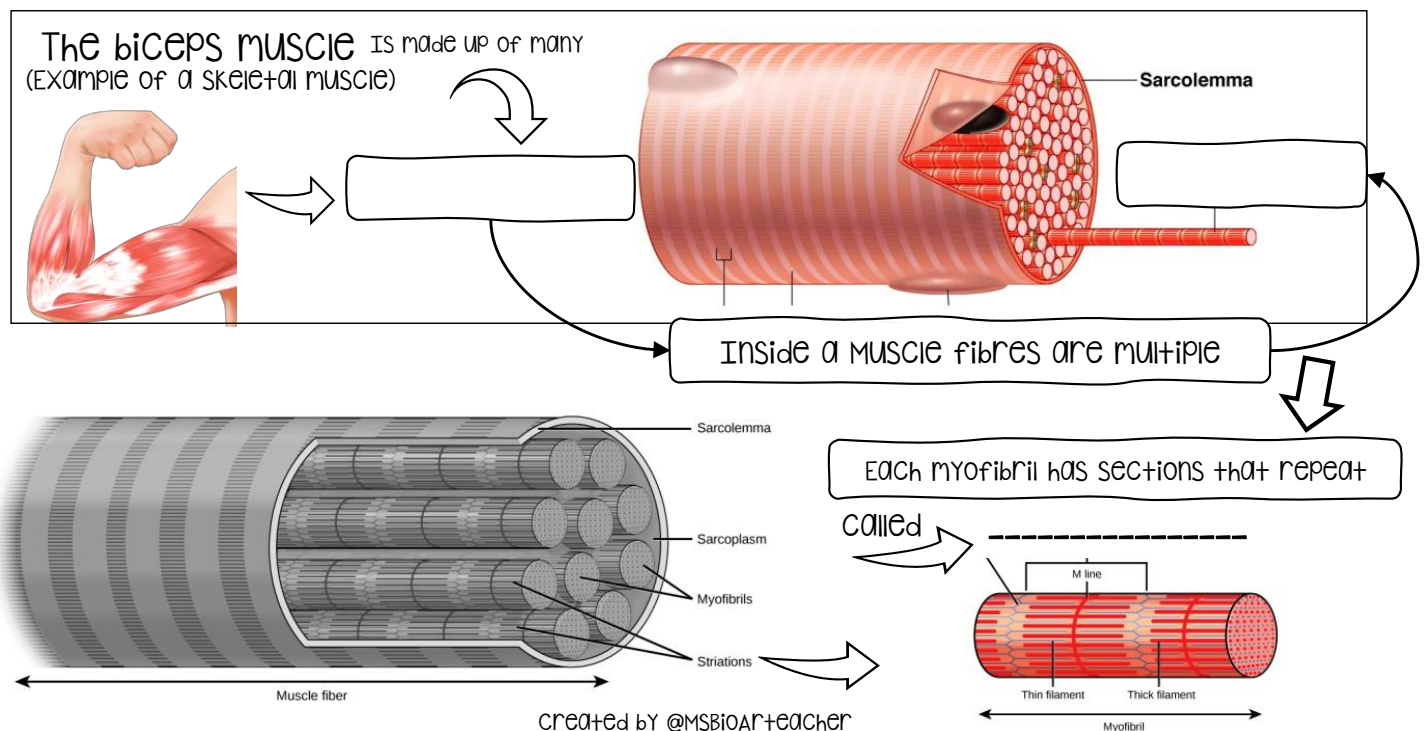
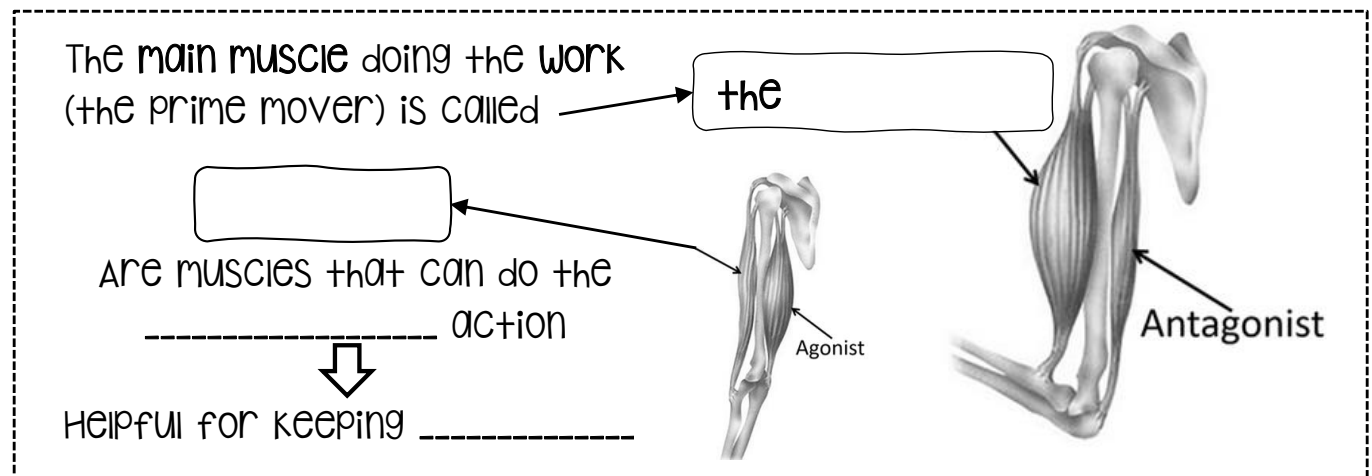
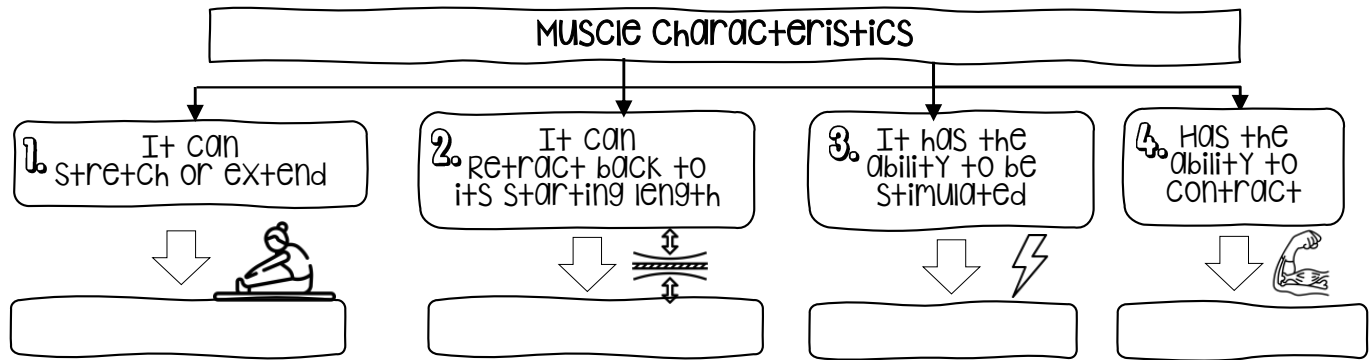
you do not

control

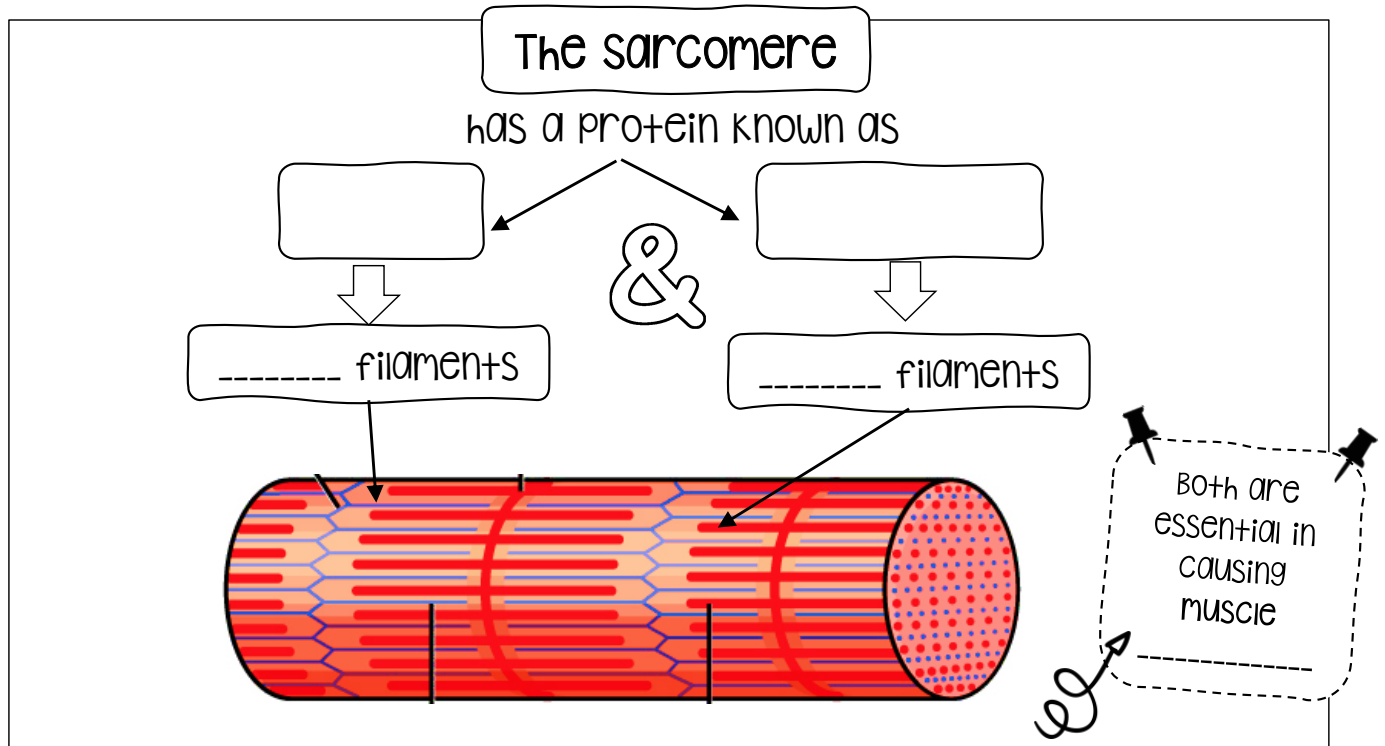
MUSCLE TISSUE control is

you do not control

The MUSCULAR SYSTEM

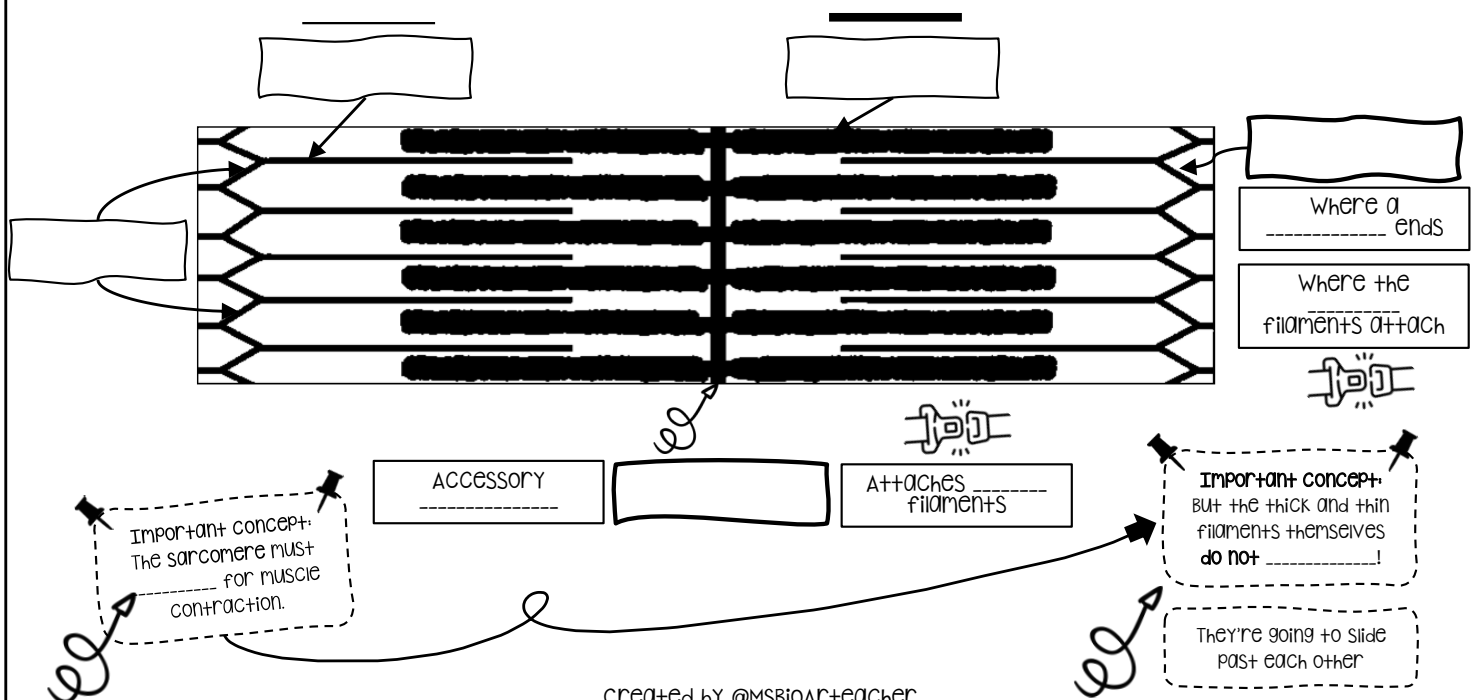


The MUSCULAR SYSTEM



Sliding filament model of muscle contraction

Structure of a sarcomere



The MUSCULAR SYSTEM

Sliding filament model of muscle contraction

keep in mind this is just a brief overview, there is more involved

overview

When the sarcomere contracts,

the _____ filaments will be _____

by the _____ filaments

towards the _____

before

after

RESULT: _____ of the thin and thick filaments

_____ -lines will be moved _____ together

1

actin

is bond to

It hydrolyzes the _____

Hydrolyzing results in _____ & _____ a _____

2

This is called a _____

can bind to the actin

HOW DOES IT WORK?

3

myosin head performs a _____

which releases the _____ & _____

power stroke meaning: the _____ filaments slide towards that _____

4

A new _____ molecule binds to the _____

head detaches from _____

Without _____ myosin head would not _____!