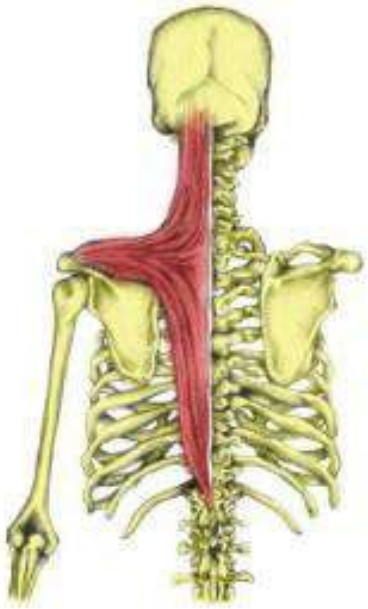
B Name:_____

Class:_____

Upper Body Muscles of the Human Body and Their Functions

Trapezius



Origin: Base of Cranium, Upper Spine

Insertion: Clavicle, Scapula

Actions: Lift Scapula, Upward Rotation of Scapula

Daily Uses: Shrugging Shoulders, Overhead movements of arm

Latissimus Dorsi

Origin: Top of Pelvis, Mid-Lower Spine

Insertion: Humerus

Actions: Adduction and Internal Rotation of Humerus

Daily Uses: Pushing on a chair to help stand up, Pulling down

Deltoid

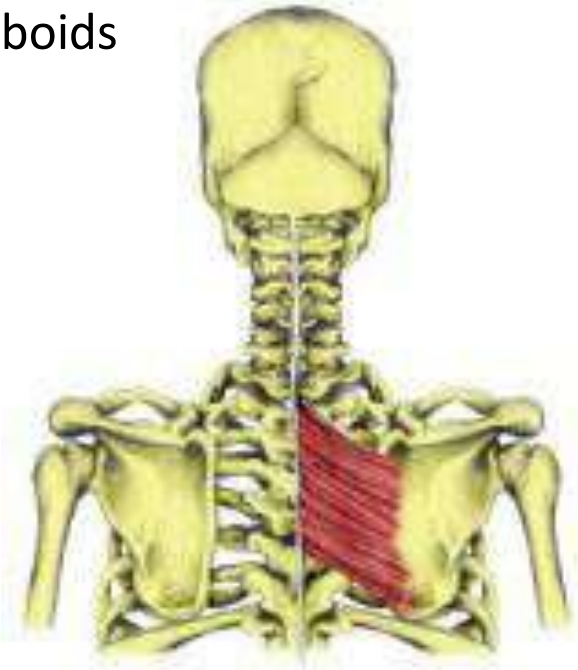
Origin: Clavicle and Scapula

Insertion: Humerus

Actions: Shoulder Abduction

Daily Uses: Lifting

Rhomboids



Origin: Spine below neck

Insertion: Scapula

Actions: Rotation of Scapula down

Daily Uses: Pulling open a drawer

Pectoralis Major

Origin: Clavicle, First 6 Ribs, Sternum

Insertion: Humerus

Actions: Shoulder Flexion, Adduction of Humerus

Daily Uses: Putting on deodorant, Pushing, Giving a High Five

Pectoralis Minor

Origin: Ribs 3-5

Insertion: Scapula

Actions: Rotation of Scapula down

Daily Uses: Pushing open a door

Sternocleidomastoid

Origin: Sternum , Clavicle

Insertion: Cranium (behind the ear)

Actions: Flex neck to Sternum and Shoulders

Daily Uses: Looking at the floor, Looking over shoulder, holding a phone between your ear and shoulder

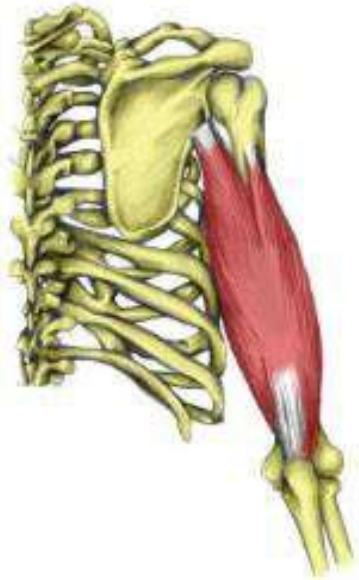
Serratus Anterior

Origin: Upper 9 ribs on chest

Insertion: Scapula

Actions: Rotation of Scapula up

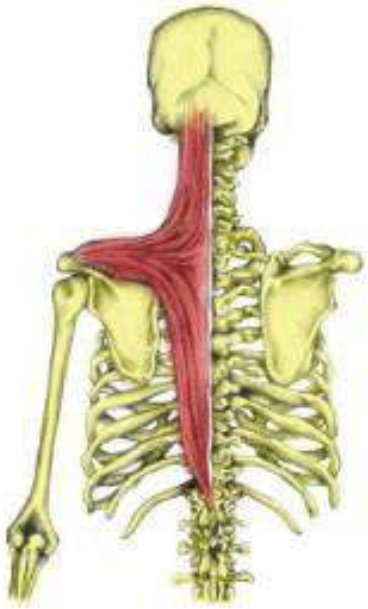
Daily Uses: Reaching for something that is above your head

Biceps Brachii 	Triceps Brachii 
Origin: Scapula	Origin: Scapula, Top of Humerus
Insertion: Radius, Ulna	Insertion: Ulna
Actions: Elbow Flexion, Supination of forearm	Actions: Elbow Extension
Daily Uses: Picking up a backpack, Putting on Glasses	Daily Uses: Closing a door by pushing, Getting out of bed

Name:_____

Class:_____

Upper Body Muscles of the Human Body and Their Functions

Trapezius 	Latissimus Dorsi 
Origin:_____	Origin:_____
Insertion:_____	Insertion:_____
Actions:_____	Actions:_____
Daily Uses:_____	Daily Uses:_____

Deltoid

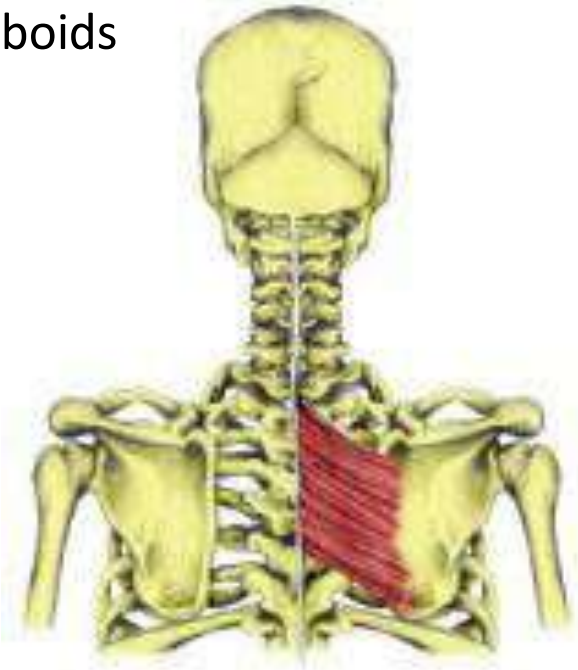
Origin:_____

Insertion:_____

Actions:_____

Daily Uses:_____

Rhomboids



Origin:_____

Insertion:_____

Actions:_____

Daily Uses:_____

Pectoralis Major

Origin:_____

Insertion:_____

Actions:_____

Daily Uses:_____

Pectoralis Minor

Origin:_____

Insertion:_____

Actions:_____

Daily Uses:_____

Sternocleidomastoid

Origin:_____

Insertion:_____

Actions:_____

Daily Uses:_____

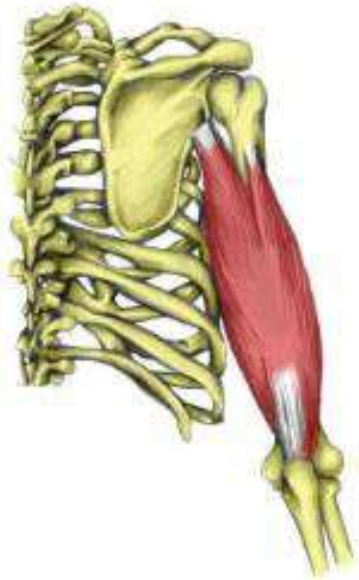
Serratus Anterior

Origin:_____

Insertion:_____

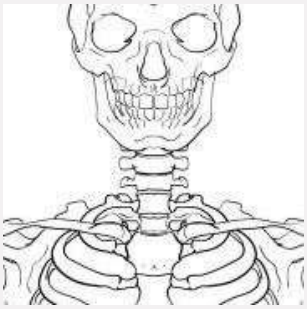
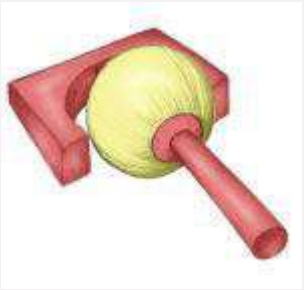
Actions:_____

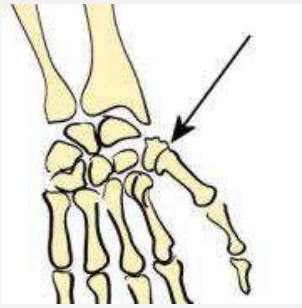
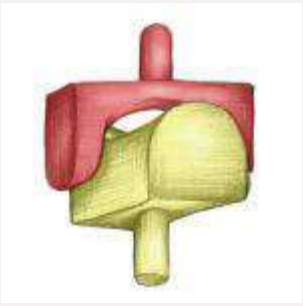
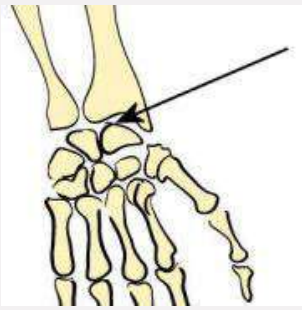
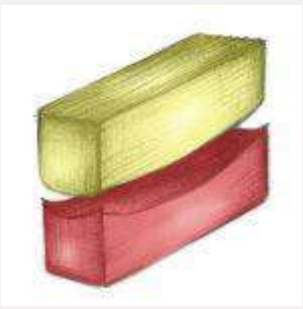
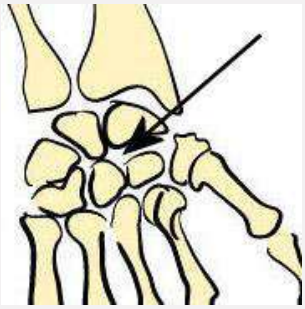
Daily Uses:_____

Biceps Brachii  Origin:_____ Insertion:_____ Actions:_____ Daily Uses:_____	Triceps Brachii  Origin:_____ Insertion:_____ Actions:_____ Daily Uses:_____

Types of Joints

Synovial Joints

Joint Type	Movement at joint	Examples	Structure
Hinge	Flexion/Extension	 **Elbow/Knee**	 **Hinge joint**
Pivot	Rotation of one bone around another	 **Top of the neck** (atlas and axis bones)	 **Pivot Joint**
Ball and Socket	Flexion/Extension/Adduction/ Abduction/Internal & External Rotation	 **Shoulder/Hip**	 **Ball and socket joint**

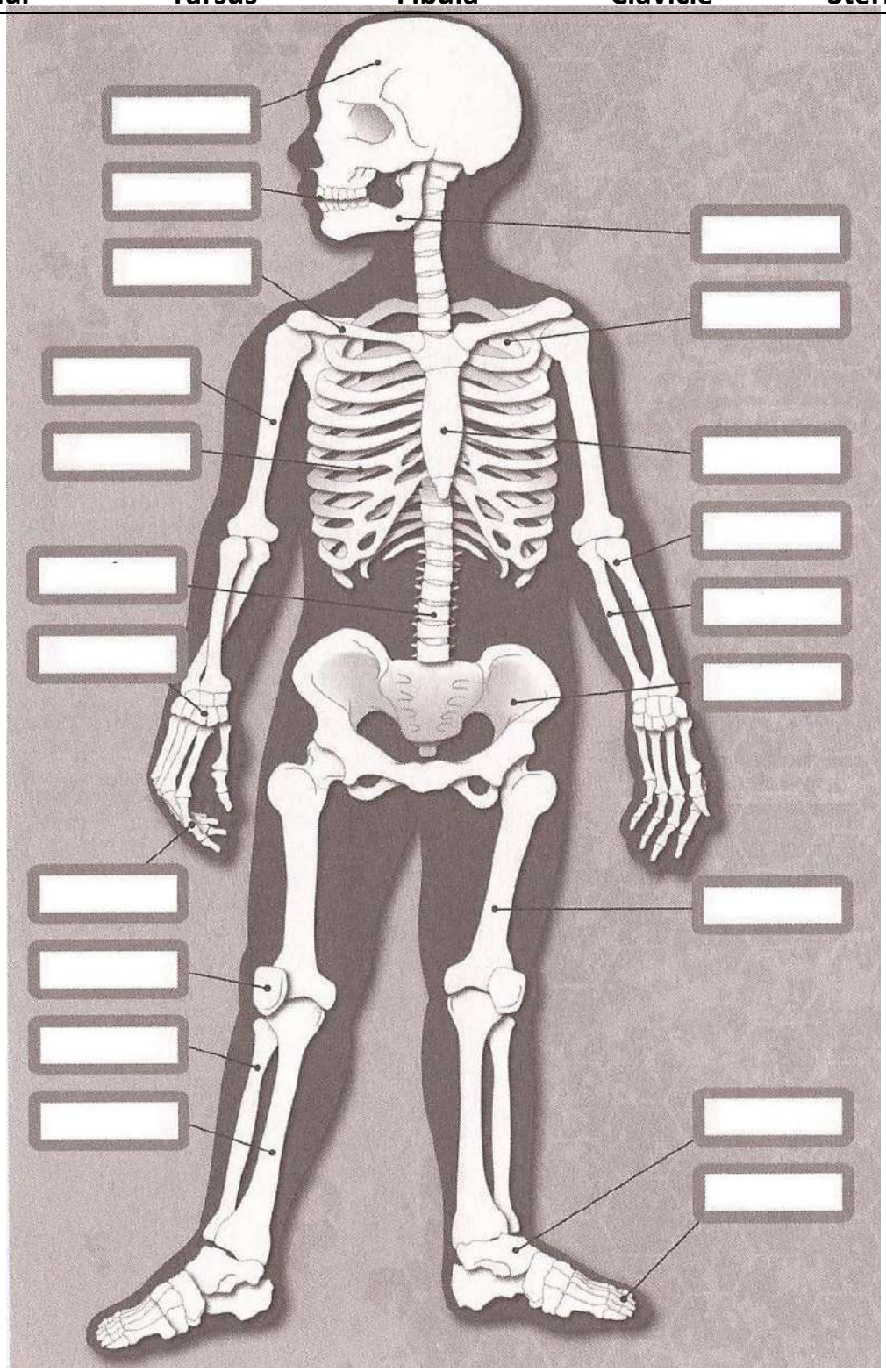
Saddle	Flexion/Extension/Adduction/ Abduction/Circumduction	 **Joint of the thumb**	 **Saddle joint**
Condyloid	Flexion/Extension/Adduction/ Abduction/Circumduction	 **Wrist**	 **Condyloid joint**
Gliding	Gliding movements	 **Intercarpal joints**	 **Gliding joint**

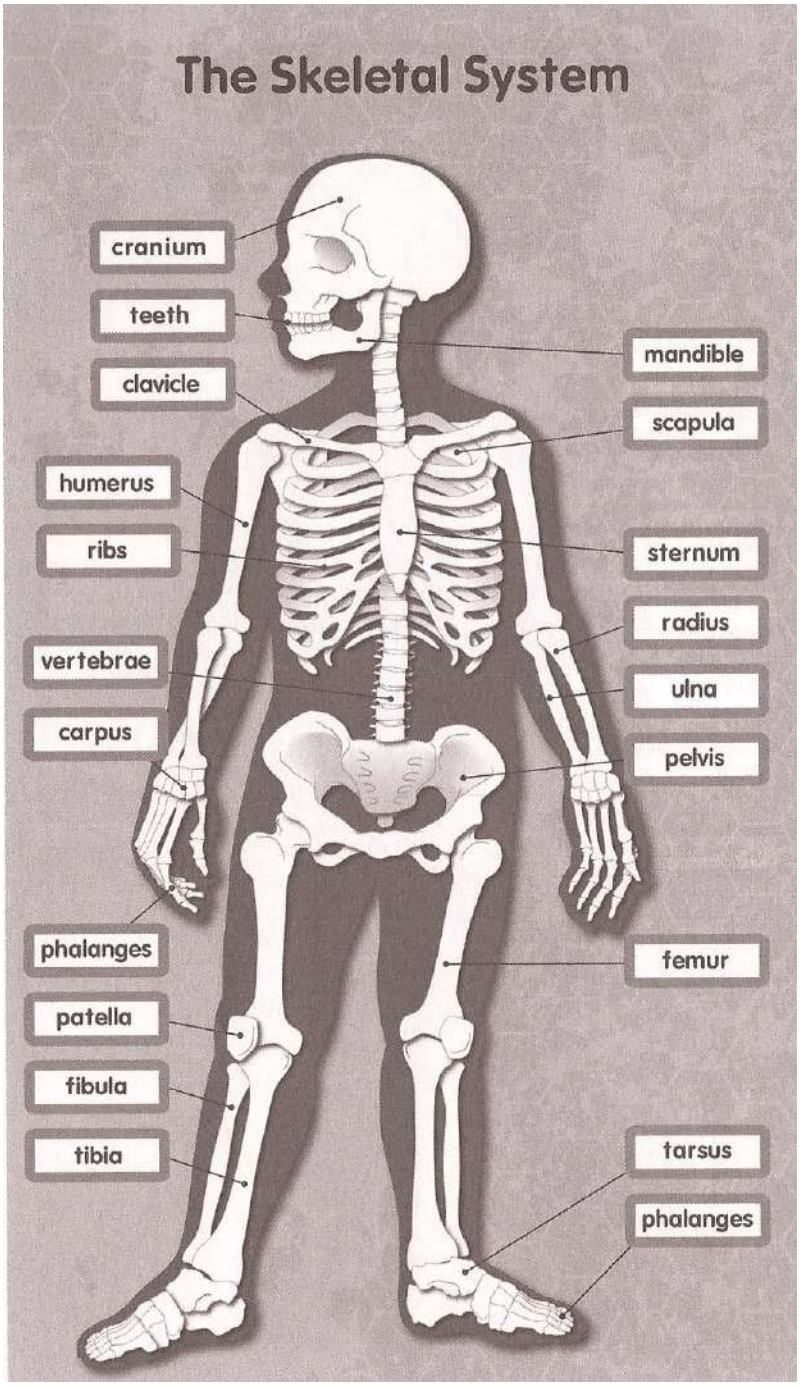
The Human Skeletal System

Name: _____ **Class:** _____

Directions: Match the names of the bones from the word bank to the diagram.

Mandible	**Cranium**	**Scapula**	**Phalanges**	**Carpus**
Teeth	**Vertebrae**	**Radius**	**Pelvis**	**Tibia**
Patella	**Phalanges**	**Ulna**	**Humerus**	**Ribs**
Femur	**Tarsus**	**Fibula**	**Clavicle**	**Sternum**




The Skeletal System
cranium
teeth
clavicle
humerus
ribs
vertebrae
carpus
phalanges
patella
fibula
tibia
mandible
scapula
sternum
radius
ulna
pelvis
femur
tarsus
phalanges

At Home Exercises

One.
Mountain Climbers

1. Place a chair in front of you.
2. Step onto the chair one foot at a time and raise your hands.
3. Step back down.
4. Repeat

Two.
Limbo Push-Ups

1. Two people hold the broomstick horizontally.
2. Another person goes in a push-up position and puts their feet on the broomstick.
3. The person with their feet on the broomstick then does push-ups.
4. The two people hold the broomstick and some weight of the person.

*If you don't have three people, replace the people holding the broomstick with chairs.

Muscles Used In Exercise One (mountain climbers)
- Rectus Femoris
- Biceps Femoris
- Tibialis Anterior
- Soleus
- Gastrocnemius
- Triceps Brachii

Muscles Used In Exercise Two (Limbos)
- Biceps Brachii
- Triceps Brachii
- Rectus Abdominus
- Deltoid

Muscles Used In Exercise Three (elastic pulls)
- Latissimus Dorsi
- Rhomboids
- Biceps Brachii

Three.
Elastic Pull

1. Connect one end of a piece of elastic to one hanger and connect the other end to another hanger.
2. Grab the hangers (put a hand on each hanger). Place your hands on the hooks of the hangers, where the elastic is.
3. Pull the hangers apart.
4. Repeat.

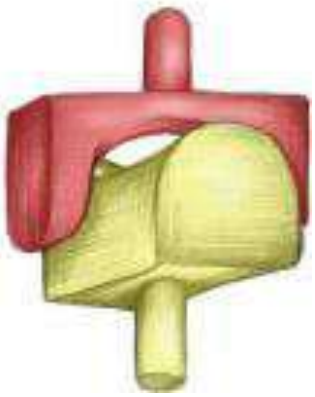
Types of Joints

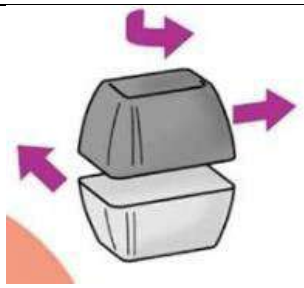
What are Joints?

1. A place in the body where _____ or more _____ connect.

2. _____ joints allow for a _____ degree of movement.

Joint Type	Definition	Examples	Picture	Movement (Circle)
Hinge	Allows movement back and forth in one direction	Elbow Knee Ankle Fingers & Toes		Flexion Extension Adduction Abduction Rotation Circumduction Gliding
Pivot	One bone rotates around the axis of the other bone in the joint	Elbow Neck Wrist		Flexion Extension Adduction Abduction Rotation Circumduction Gliding

Ball & Socket	Allows the limbs to rotate in all directions.	Shoulder Hip		Flexion Extension Adduction Abduction Rotation Circumduction Gliding
Saddle	Can move back and forth and up and down	Thumb		Flexion Extension Adduction Abduction Rotation Circumduction Gliding
Condyloid	oval-shaped end of one bone fitting into a similarly oval-shaped hollow of another bone	Wrist Knuckles Fingers & toes		Flexion Extension Adduction Abduction Rotation Circumduction Gliding

Gliding	Where two bones meet at a flat or almost flat surface	Wrist Ankles Spine		Flexion Extension Adduction Abduction Rotation Circumduction Gliding

Joint Movements

1. Flexion- Angle at the joint gets _____.

2. Extension- Angle at the joint gets _____.

3. Adduction- Any movements _____ the midline of the body.

4. Abduction- Any movements _____ from the midline of the body.

5. Rotation- Movement around the _____ axis.

6. Circumduction- The _____ movement of a limb.

7. Gliding- Any movements up and down, left and right, and

_____.

Additional Notes:

Skeletal System Anatomy Skit Class Presentation

Names: _____

Requirements:

- Need to include at least 10 bones using proper scientific names
- Skit must be presented to the class
- Every student in the group needs to have at least one part in the skit
- You may use props during the skit. (Can be brought in from home)
- Provide a typed copy of skit for grading

List bones included in skit

1._____ 6. _____

2. _____ 7. _____

3. _____ 8. _____

4. _____ 9. _____

5. _____ 10. _____

Brainstorming space:

Name _____ Class _____ Date _____

Activity

Datasheet for In-Text Activity

MOVE YOUR MUSCLES

Perform the following movements. Then, use the space below to indicate which muscles were involved in each movement.

Raise your arm

Bend your arm

Point your toe

Stand up

Raise your knee

ANALYSIS

1. Did any movements require the use of more than one muscle? Why do you think these movements require the use of more than one muscle?

rName:_____

Class:_____

Lower Body Muscles of the Human Body and Their Functions

External Oblique

Origin: Lower 8 ribs

Insertion: Pelvis, Linea Alba (Fibrous structure down abdomen)

Actions: Bends torso to side, rotates torso

Daily Uses: Raking leaves, Picking up something off ground while sitting

Internal Oblique

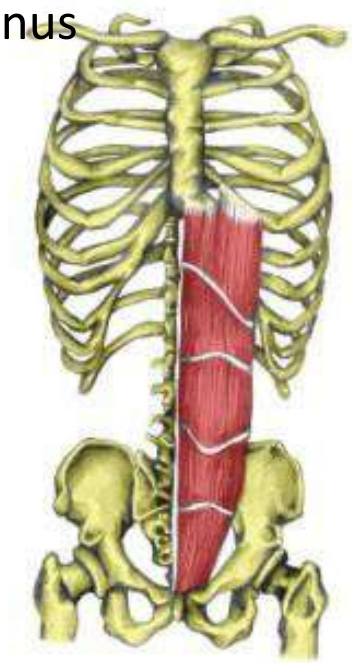
Origin: Top of Pelvis

Insertion: Lower 3-4 Ribs, Linea Alba

Actions: Same as External Oblique

Daily Uses: Same as External Oblique

Rectus Abdominus



Origin: Pelvis

Insertion: Bottom of Sternum , end of bottom Ribs

Actions: Flexes Spine

Daily Uses: Sitting up

Transverse Abdominus

Origin: Pelvis

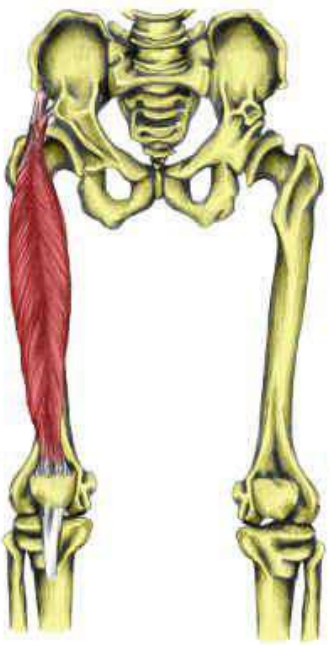
Insertion: Linea Alba

Actions: Compresses Abdomen

Daily Uses: Maintaining good posture

Rectus Femoris

Part of Quads



Origin: Pelvis

Insertion: Patella and tendon from patella to tibia

Actions: Flexion of hip, Extension of knee

Daily Uses: Kicking a ball

Semimembranosus

part of hamstrings

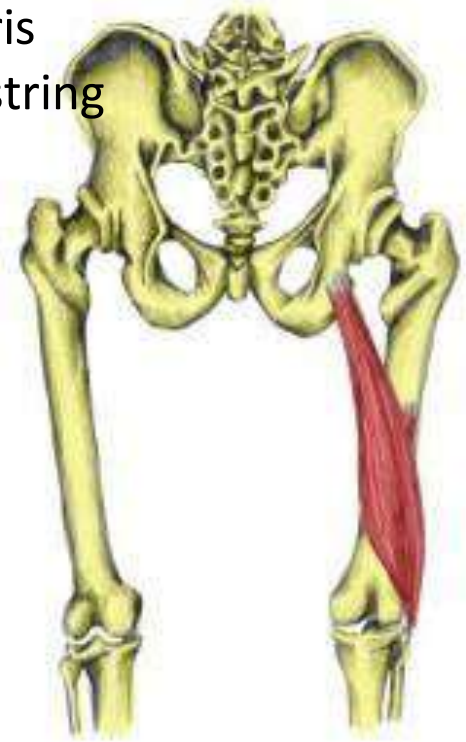
Origin: Pelvis

Insertion: Tibia

Actions: Hip extension, Knee flexion

Daily Uses: Bending Knee to step over an object

Biceps Femoris
Part of Hamstring



Origin: Pelvis (Sit bone)

Insertion: Tibia, Femur

Actions: Hip extension, Knee Flexion

Daily Uses: Bending knee to step over an object

Tibialis Anterior

Origin: Upper half of anterior part of the Tibia

Insertion: Tarsals

Actions: Dorsi flexion (Decreasing angle between foot and leg)

Daily Uses: Walking (lifting up foot)

Soleus

Origin: Upper posterior part of Tibia and Fibula

Insertion: Posterior part of heel via the Achilles tendon

Actions: Plantar flexion

Daily Uses: Standing, standing on tip toes

Gastrocnemius

Origin: Lower posterior part of Femur

Insertion: Posterior part of heel via Achilles tendon

Actions: Plantar flexion

Daily Uses: Standing on tip toes, jumping

Gluteus Maximus

Origin: Posterior part of Pelvis and Sacrum

Insertion: Posterior part of upper Femur

Actions: Hip extension, external rotation of hip

Daily Uses: Walking up stairs (extension part)

Gluteus Medius

Gluteus Minimus

Origin: Pelvis

Insertion: Upper part of Femur

Actions: Hip abduction, Internal rotation of Hip

Daily Uses: Getting out of a car, side stepping

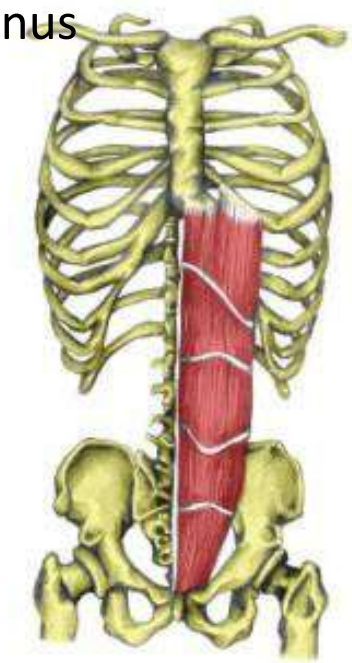
Name:_____

Class:_____

Lower Body Muscles of the Human Body and Their Functions

External Oblique 	Internal Oblique 
Origin:_____	Origin:_____
Insertion:_____	Insertion:_____
Actions:_____	Actions:_____
Daily Uses:_____	Daily Uses:_____

Rectus Abdominus



Origin:_____

Insertion:_____

Actions:_____

Daily Uses:_____

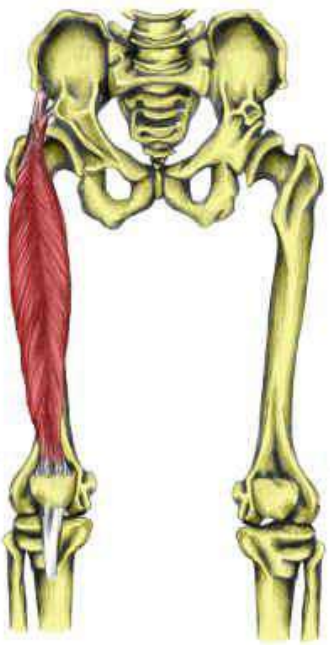
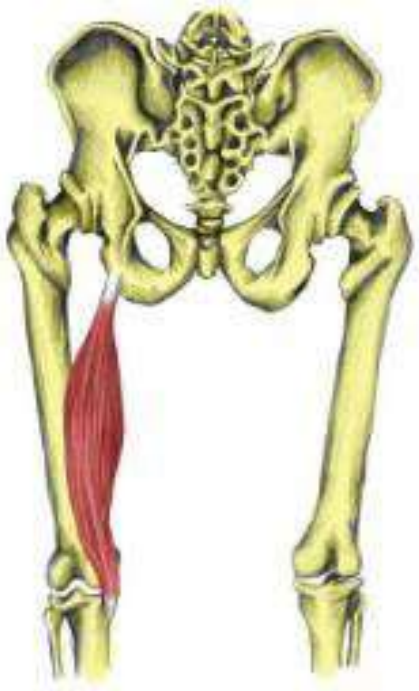
Transverse Abdominus

Origin:_____

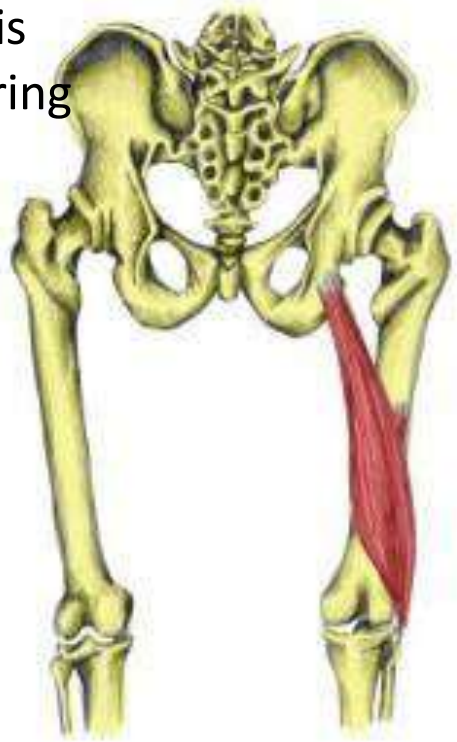
Insertion:_____

Actions:_____

Daily Uses:_____

Rectus Femoris 	Semimembranosus part of hamstrings 
Origin:_____	Origin:_____
Insertion:_____	Insertion:_____
Actions:_____	Actions:_____
Daily Uses:_____	Daily Uses:_____

Biceps Femoris
Part of Hamstring



Origin:_____

Insertion:_____

Actions:_____

Daily Uses:_____

Tibialis Anterior

Origin:_____

Insertion:_____

Actions:_____

Daily Uses:_____

Soleus

Origin:_____

Insertion:_____

Actions:_____

Daily Uses:_____

Gastrocnemius

Origin:_____

Insertion:_____

Actions:_____

Daily Uses:_____

Gluteus Maximus

Origin:_____

Insertion:_____

Actions:_____

Daily Uses:_____

Gluteus Medius

Gluteus Minimus

Origin:_____

Insertion:_____

Actions:_____

Daily Uses:_____

Grading Rubric for Skeletal System Anatomy Class Presentation

Group Names: _____

Criteria	2	4	6	8	
Number of Bones Used	No bones used	5-6 bones used	7-8 bones used	All 10 bones used	
Proper Identification of Bones Location	No bones properly identified	5-6 bones properly identified	7-8 bones properly identified	All bones bones properly identified	
Group Participation/ Organization	Not fully prepared to present	Prepared but group members were not focused on presenting	Prepared but unorganized thoughts presented	All students in group worked together effectively	
Creativity	No creativity shown	Correct use of bones but not presented in creative manner	Presented creatively but not all bones were incorporated effectively	Incorporated all bones into an original creative skit	
				Total	

Final Grade: _____/32 = _____%

Comments:

Grading Rubric for At Home Exercises Class Presentation

Group Member Names: _____

Exercise Names: **#1**_____**#2**_____**#3**_____

Criteria	0	2	3	4	Exercise Scores		
					1	**2**	**3**
Muscles Worked	No muscles listed	No appropriate muscles listed	Some correct and some incorrect muscles listed	All muscles listed are appropriate for exercise			
Description of Exercise	Poor description with no connection to the exercise	Understandable but needs significant improvement	Good explanation but could use improvement	Excellent description of exercise			
Description of stretch	Poor description and not appropriate for muscles worked	Understandable but not appropriate for muscles worked	Good description but could use improvement. Appropriate for muscles worked	Excellent description of exercise. Appropriate for muscles worked			
Household items used	No household items used	Uncommon household items used	Item used worked adequately but other applications should have been explored	Item used worked perfectly for the exercise			
Modifications to increase difficulty	No modifications presented	Modifications did not increase the difficulty	Modifications slightly increased the difficulty	Modifications appropriately increased the difficulty			
				Exercise Total			

Final Grade: _____/60 = _____%

Comments:

At Home Exercises Class Presentation

Names: _____

Requirements:

-Three Muscles or Muscle groups (provide proper scientific names for the muscles worked)
-One exercise for each muscle or muscle group (Name the exercise that you create)
-One stretch for each muscle or muscle group
-Need to use everyday household items in exercise
-Provide at least one modification to increase the difficulty of the exercise

1. Exercise Name:_____

    -Muscles worked:

    -Household Materials Needed:

Description of how to perform the exercise:

Description of how to increase the difficulty of the exercise:

Description of how to stretch the muscles worked:

2. Exercise Name:_____

-Muscles worked:

-Household Materials Needed:

Description of how to perform the exercise:

Description of how to increase the difficulty of the exercise:

Description of how to stretch the muscles worked:

3. Exercise Name:_____

-Muscles worked:

-Household Materials Needed:

Description of how to perform the exercise:

Description of how to increase the difficulty of the exercise:

Description of how to stretch the muscles worked: