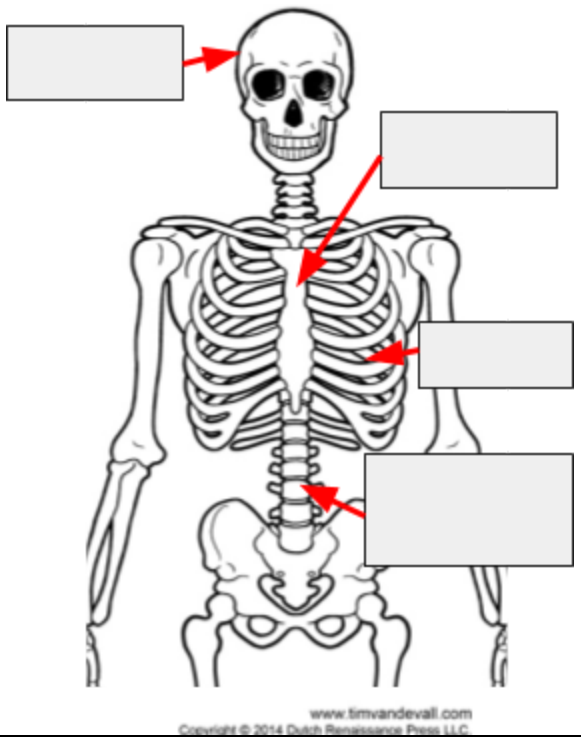
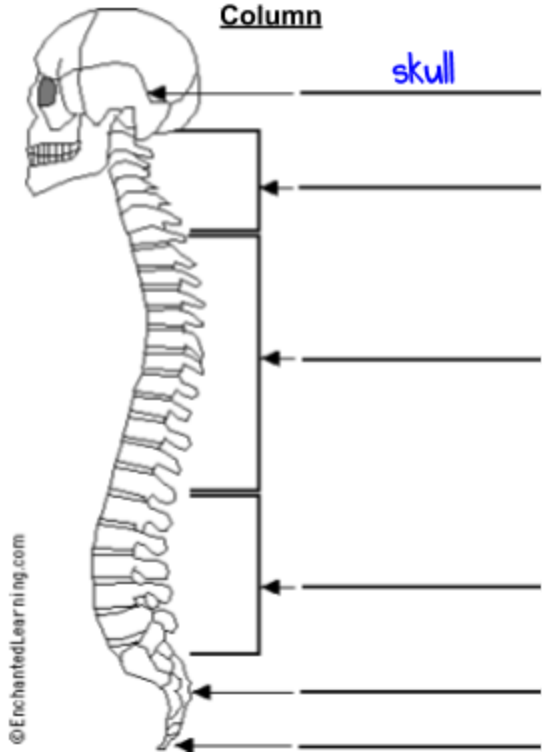
Name: _____ Date: _____ Period: _____

1.1 – The Skeletal System

Cues: (Key ideas, Important Vocab, Reflection/thoughts/ questions)	**Main ideas/Notes**
	<u>Introduction: Anatomical Position</u> ***Draw*** *the anatomical starting position* **1.1.1 - Distinguish** *(make clear the differences between two or more concepts or items)* **anatomically between the *axial* and *appendicular* skeleton.** **Label and color** the following bones on the *axial* skeletons below (use a different color for each type of bone) **Diagram 1.1.1:** ❏ Skull ❏ Ribs ❏ Sternum ❏ Vertebral Column **<u>Diagram 1.1.1: Axial Skeleton</u>** 

Cues:	Main ideas/Notes
	1.1.1 - Distinguish anatomically between the *axial* and *appendicular* skeleton. (continued) **Label and color** the following bones on the *axial* skeletons below (use a different color for each type of bone) **Diagram 1.1.2** ❑ Vertebral column ❑ Cervical vertebrae (7) ❑ Thoracic vertebrae (12) ❑ Lumbar vertebrae (5) ❑ Sacral (5 fused) ❑ Coccyx (4 fused) **Diagram 1.1.2: Axial Skeleton - Vertebral Column** 

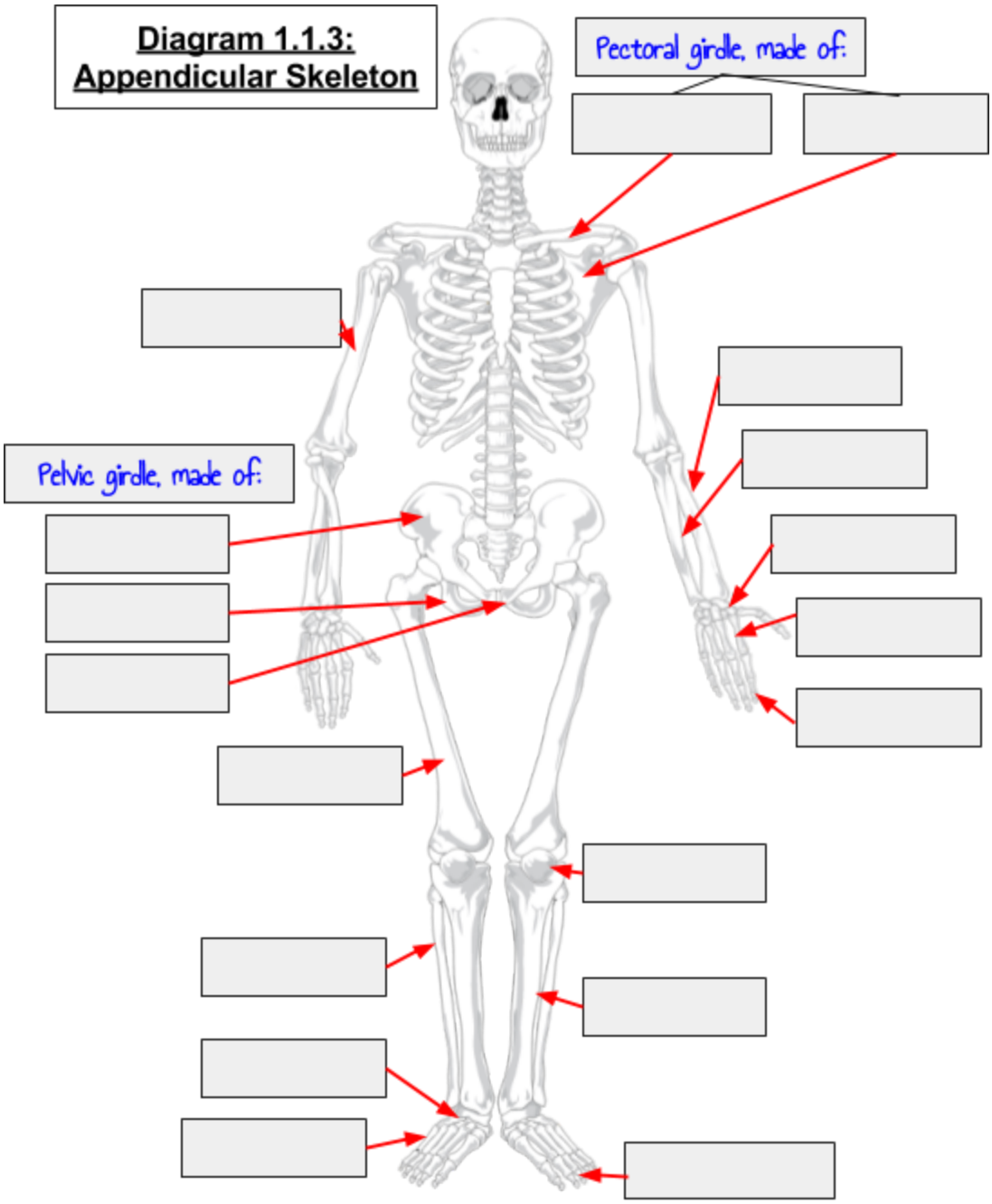
Cues:	Main ideas/Notes

1.1.1 - Distinguish anatomically between the *axial* and *appendicular* skeleton. (continued)

Label and color the following bones on the *appendicular* skeleton below. (use a different color for each type of bone Each bone will be used ONCE unless noted.)

Diagram 1.1.3:

- ❑ scaplua
- ❑ clavicle
- ❑ humerus
- ❑ radius
- ❑ ulna
- ❑ carpals
- ❑ metacarpals
- ❑ phalanges (x2)
- ❑ ilium
- ❑ ischium
- ❑ pubis
- ❑ femur
- ❑ patella
- ❑ tibia
- ❑ fibula
- ❑ tarsals
- ❑ metatarsals



Cues:	Main ideas/Notes

1.1.2 - Distinguish *(make clear the differences between two or more concepts or items)* **between *axial* and *appendicular* skeletons in terms of function.**

Axial Skeletal Functions

Function	Example of bone
Protection of organs	Skull, ribs
Support and posture	
Muscle attachment points	
Storage/release of minerals like calcium and phosphorous	
Blood cell production (red bone marrow)	

Appendicular Skeletal Functions

Function	Example of bone
Movement	
Muscle attachment points	
Storage/release of minerals like calcium and phosphorous	
Blood cell production (red bone marrow)	
Energy storage (lipids stored in yellow bone marrow)	

Now that you have seen the functions, go back and HIGHLIGHT the differences are required by this assessment statement.

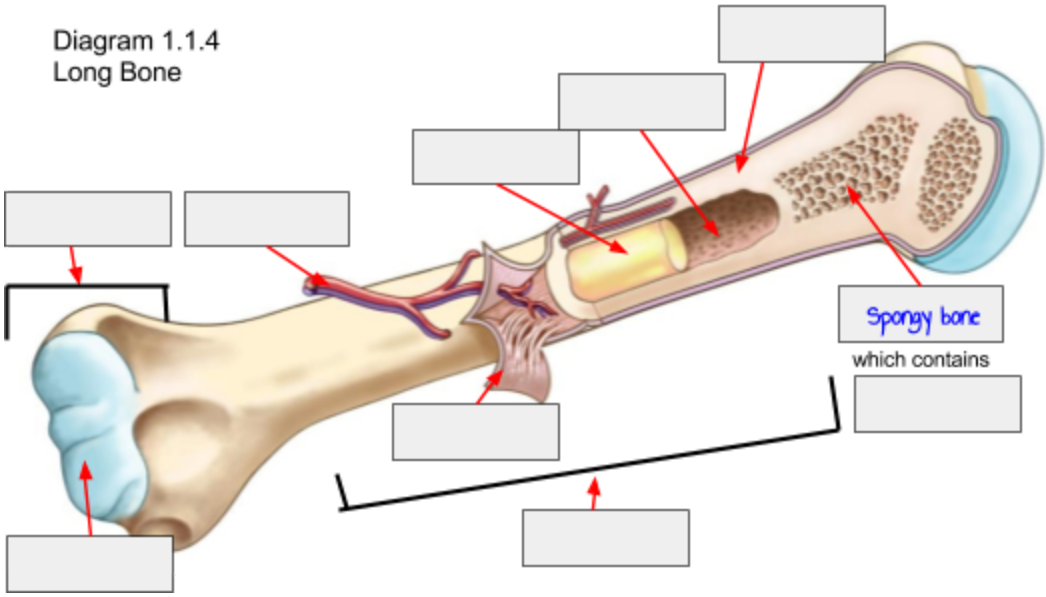
1.1.3 - State the four types of bone.

Bone Type	Description	Drawing of Example Bone
Long		
Short		
Flat		
Irregular		

Cues:	Main ideas/Notes

1.1.4 - Draw and annotate *(add brief notes to a diagram or graph)* **the structure of a long bone.**

(Note: You have been given a diagram to label here and a chart for your annotations. Expect to be required to draw this as a homework assignment when school starts!)



Use the terms in the chart below to label the Diagram 1.1.4 above.

Structure	Function
Epiphysis	
Spongy bone	
Articular cartilage	
Diaphysis	
Compact bone	
Yellow bone marrow	
Red bone marrow	
Medullary (marrow) cavity	
Blood vessel (nutrient foramen)	
Periosteum	

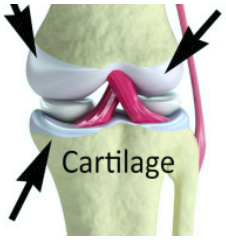
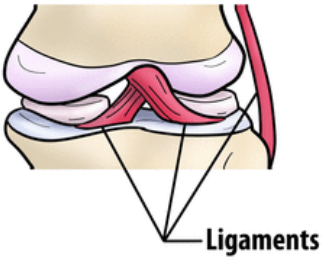
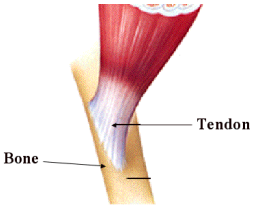
Cues:	Main ideas/Notes

1.1.5 - Apply anatomical terminology to the location of bones.

Anatomical location term	Definition	Use the term in a sentence to compare the location of 2 different bones.
Inferior		The femur is inferior to the pelvic girdle.
Superior		
Proximal		
Distal		
Medial		
Lateral		
Posterior		
Anterior		

Cues:	Main ideas/Notes

1.1.6 - Outline the functions of connective tissue.

Connective Tissue	Functions	Diagram
Catrilage		
Ligament		
Tendon		

1.1.7 - Define the term JOINT.

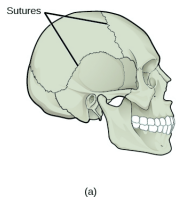
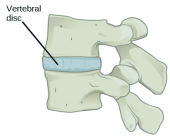
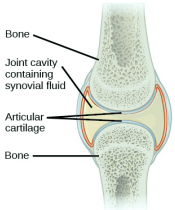
A joint is: _____

_____

_____.

Cues:	Main ideas/Notes

1.1.8 - Distinguish between the different types of joints in relation to the movement permitted.

Joint type	Description of movement	Examples of joints in the body	Diagram
fibrous			
cartilaginous			
synovial			

1.1.9 - Outline the features of a synovial joints.

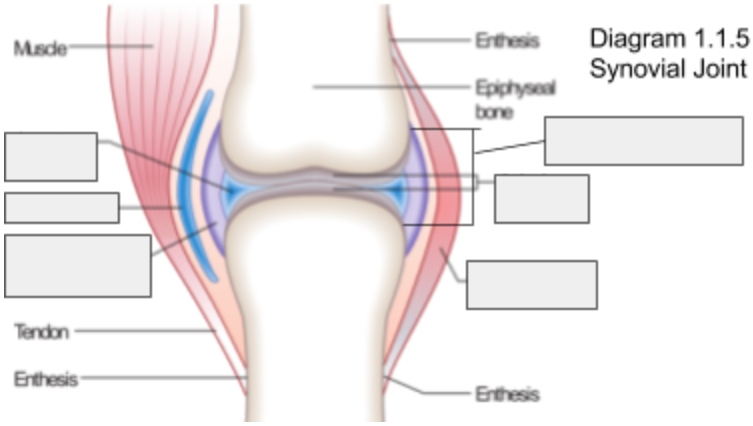
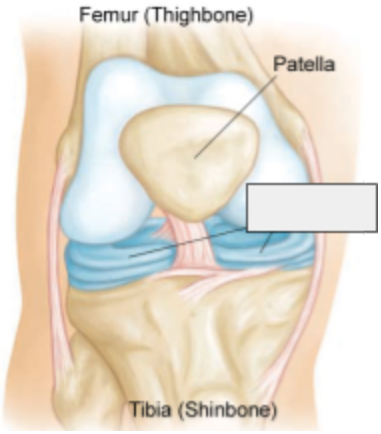


Diagram 1.1.5
Synovial Joint



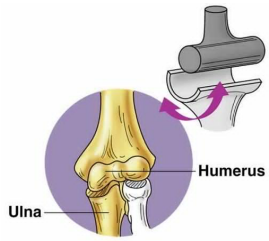
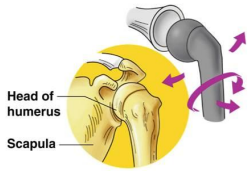
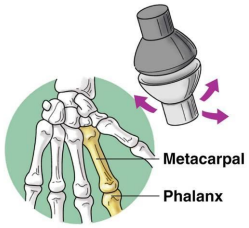
Cues:	Main ideas/Notes

1.1.9 - Outline the features of a synovial joints. (continued)

Use the terms in the chart below to label diagram 1.1.5 on page 8.

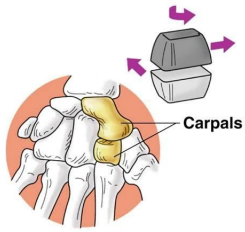
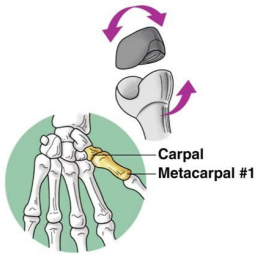
Structure	Function
Articular cartilage	
Synovial membrane	
Synovial fluid	
Bursae	
Meniscus	
Ligament	
Articular capsule	

1.1.10 - List the different types of synovial joints.

Synovial Joint type	Description of movement	Examples of joint in the body	Diagram
Hinge			
Ball and socket			
Condyloid			

Cues:	Main ideas/Notes

1.1.10 - List the different types of synovial joints. (continued)

Synovial Joint type	Description of movement	Examples of joint in the body	Diagram
Pivot			
Gliding (also called a plane joint)			
Saddle			

Name: _____ Date: _____ Period: _____

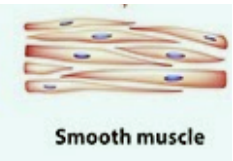
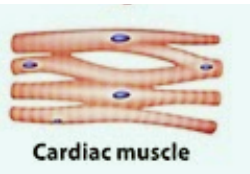
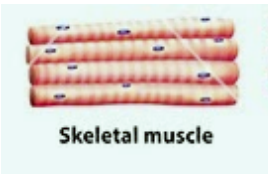
1.2 – The Muscular System

Cues:	Main ideas/Notes

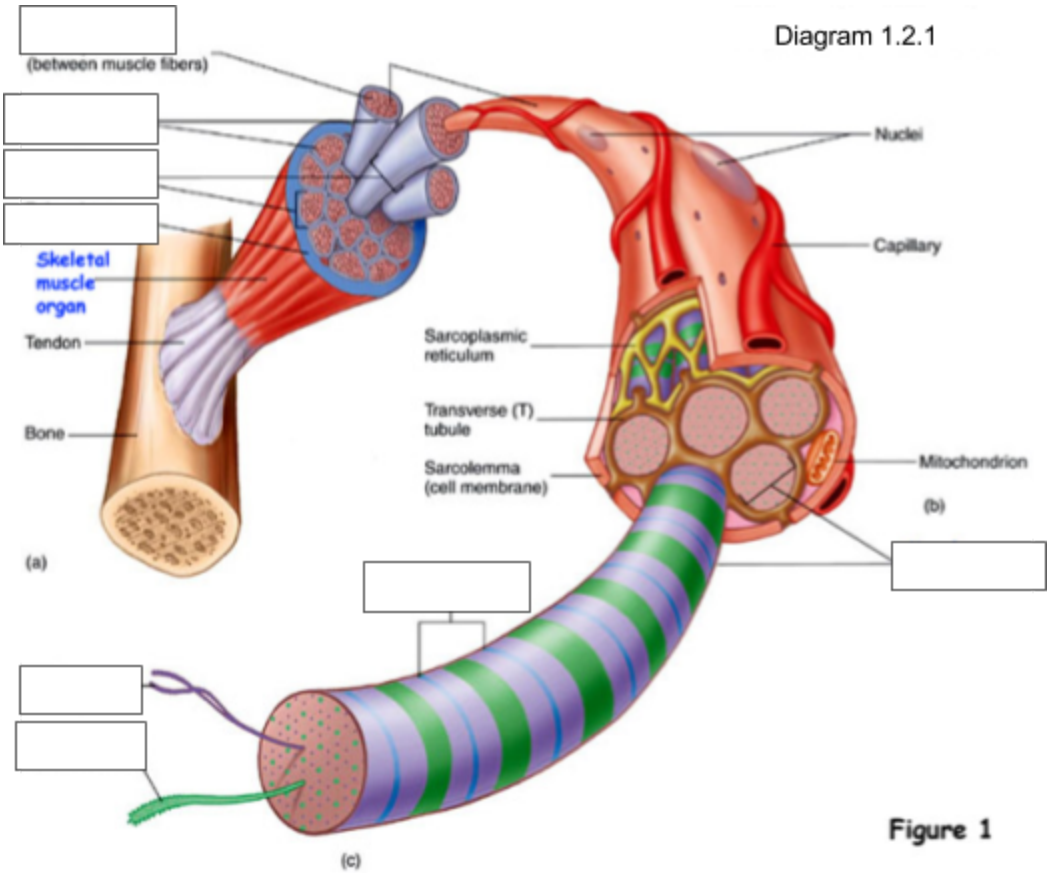
1.2.1 - Outline the general characteristics common to muscle tissue.

Characteristic	Summary
contractility	
extensibility	
elasticity	
atrophy	
hypertrophy	
controlled by nerve stimuli	
fed by capillaries	

1.2.2 - Distinguish between the different muscle types.

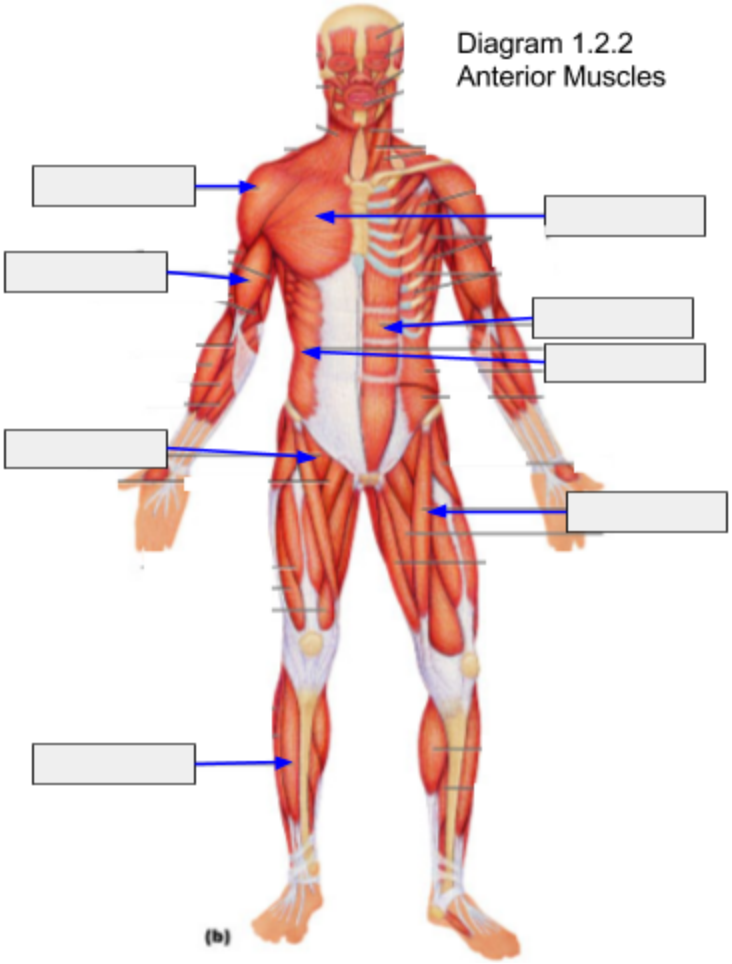
Type of muscle:	Smooth	Cardiac	Skeletal
Location in body			
Nuclei (1 or many per cell)			
Striations and/or branching			
Control (voluntary or involuntary			
Diagram			

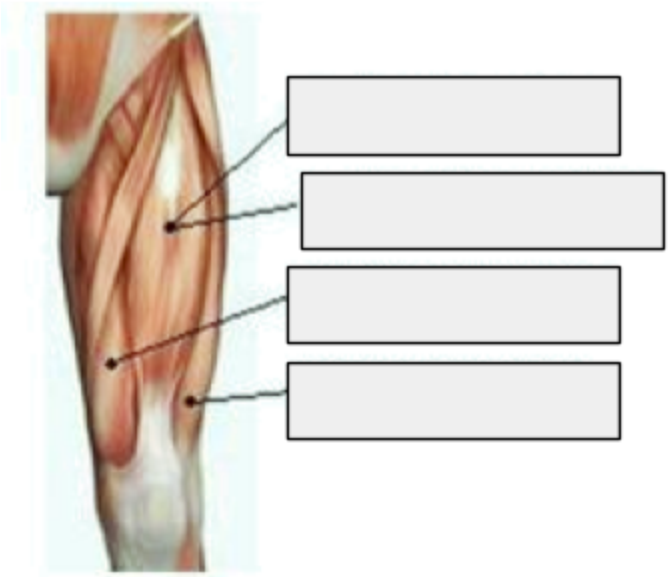
Cues:	Main ideas/Notes
	1.2.3 - Annotate the structure of skeletal muscle.



Use the terms below to label Diagram 1.2.1

Term	Definition
epimysium	
perimysium	
endomysium	
muscle fiber	
myofibril	
sarcomere	
actin	
myosin	

Cues:	Main ideas/Notes
	1.2.4 - Define the terms ORIGIN and INSERTION of muscles. ● Origin: ● Insertion: **1.2.5 - Identify the location of skeletal muscles in various regions of the body.** **Label** the *anterior muscles* below. **Diagram 1.2.2: Anterior Muscles** ❑ Deltoid ❑ Iliopsoas ❑ Pectoralis ❑ Sartorius ❑ Tibialis anterior ❑ External obliques ❑ Abdominus rectus ❑ Biceps brachii 

Cues:	Main ideas/Notes
	1.2.5 - Identify the location of skeletal muscles in various regions of the body. (continued) **Label** the *anterior muscles* of the **quadriceps femoris** below. **Diagram 1.2.3: Quadriceps Femoris** ❑ Vastus medialis ❑ Rectus femoris ❑ Vastus lateralis ❑ Vastus intermedius Diagram 1.2.3 Quadriceps Femoris 

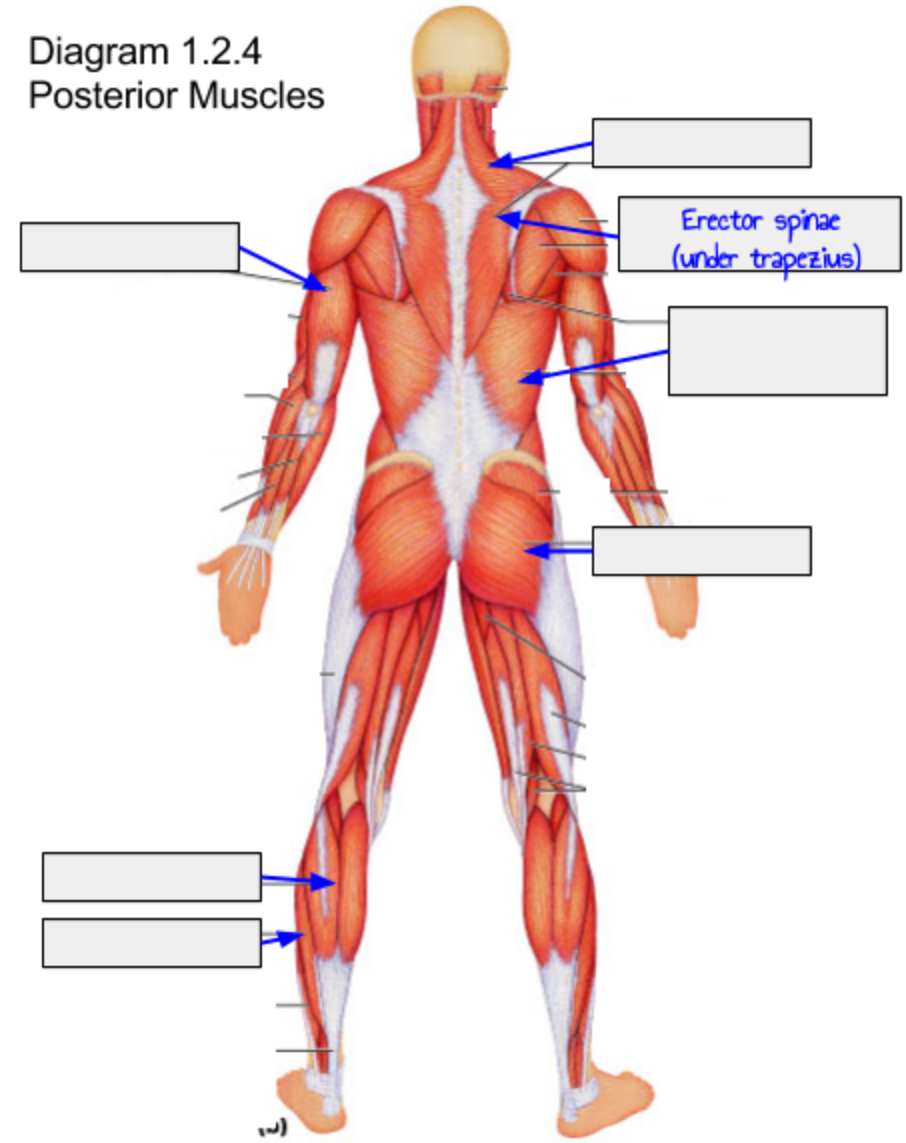
Cues:	Main ideas/Notes

1.2.5 - Identify the location of skeletal muscles in various regions of the body. (continued)

Label the *posterior muscles* below.

Diagram 1.2.4: Posterior Muscles

❑ Trapezius	❑ Latissimus dorsi	❑ Gastrocnemius	❑ Erector spinae
❑ Triceps brachii	❑ Gluteus maximus	❑ Soleus	



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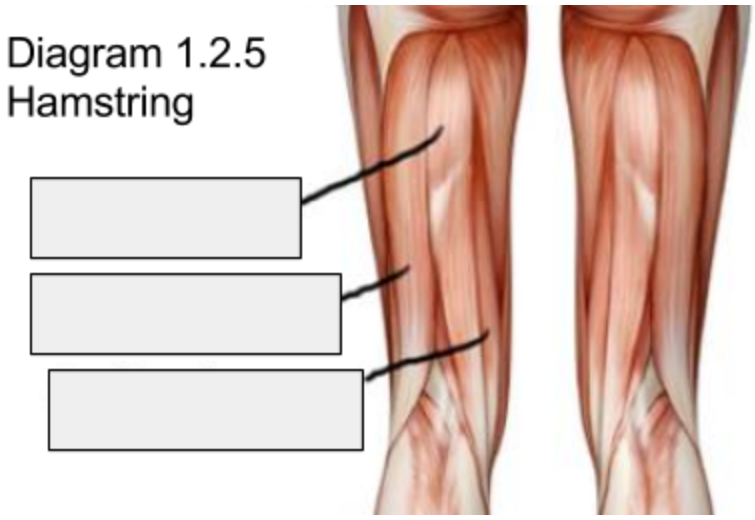
Cues:	Main ideas/Notes
	1.2.5 - Identify the location of skeletal muscles in various regions of the body. (continued) **Label** the *anterior muscles* of the **hamstring** below. **Diagram 1.2.5: Hamstrings** ❏ Semimembranosus ❏ Biceps femoris ❏ Semitendinosus  **Application:** **Choose 3 of the muscles above. Identify the origin bone, attachment bone, and the action of the muscle.** **1.** **2.** **3.**