Part 2 Skeletal System

Name:

Part 2 Lesson 1 Skeletal System

Bone contains three types of cells. These three cells…

-Osteo_____: Make new bone and help repair damage.

-Osteo_____: Carry nutrients and waste products to and from blood vessels in the bone.

-Osteo_____, Break down bone and help to sculpt and shape it.

An adult human has _____ bones.

When you are born, you have over _____ bones. They fuse together as you get older.

The skeletal system…

-Provides the _____ and _____.

-_____.

-Protects.

-Produces _____

_____

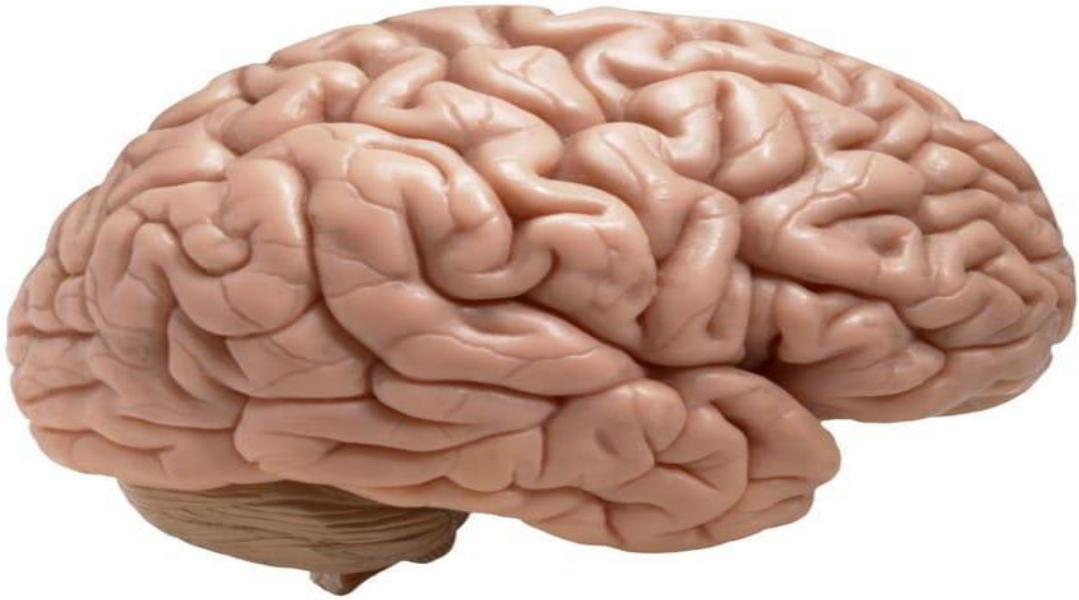
Part 2 Lesson 2 Traumatic Brain Injury

Traumatic brain injury (_____)

A blow to the head that disrupts normal _____ function.

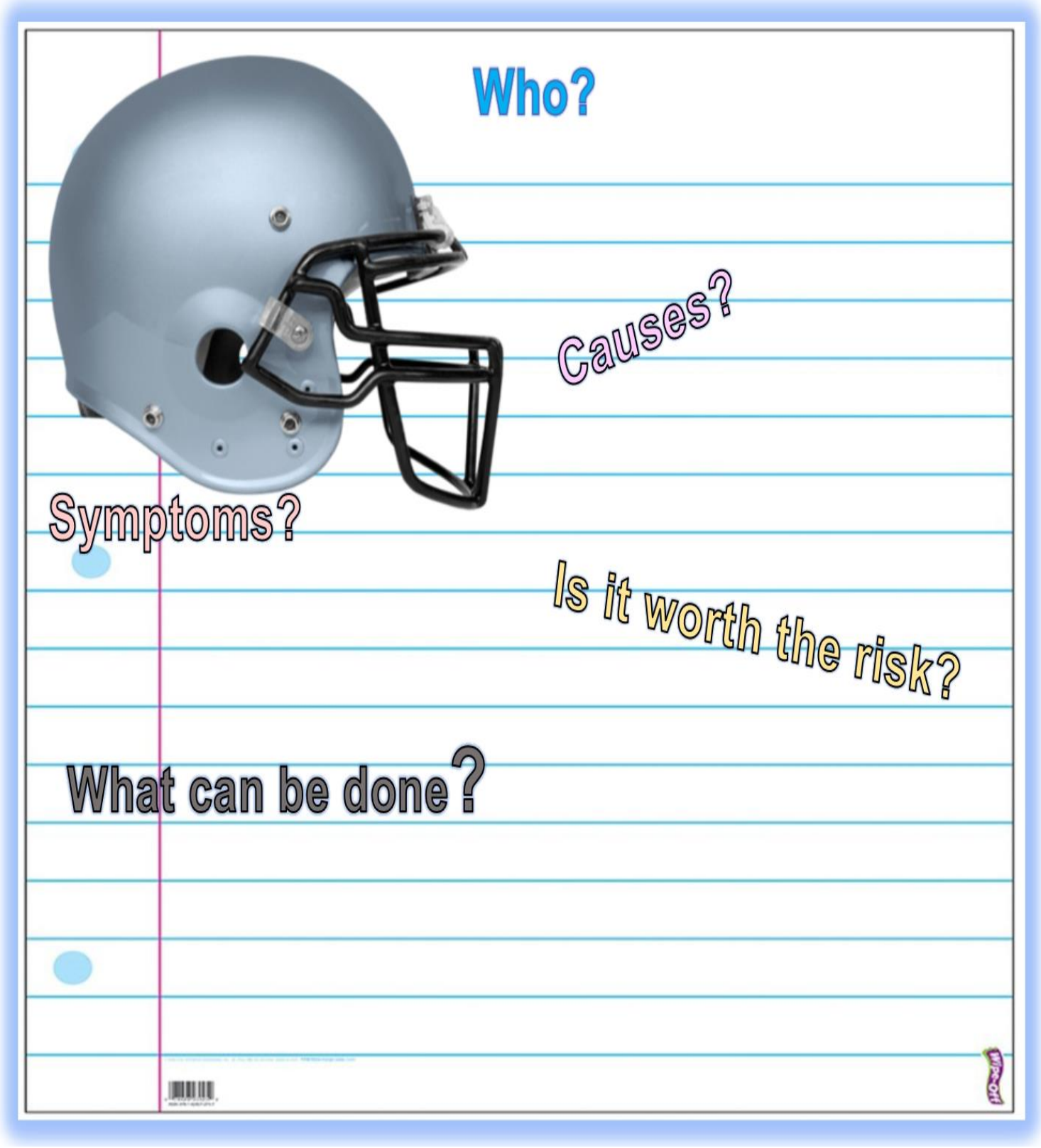
A mild blow to the _____ can result in being knocked _____.

What some of the effects of injury on the brain. Please record around the brain below



Case study. Former NFL Players. NPR

- Two page reading and or audio link.
- http://www.npr.org/2014/01/31/269422083/sidelined-by-brain-injury-ex-nfl-player-copes-with-desperation



Part 2 Lesson 3 Bones, Ligaments, Tendons

There are two main categories of bones.

_____ Bone (Cancellous bone)

_____Bone

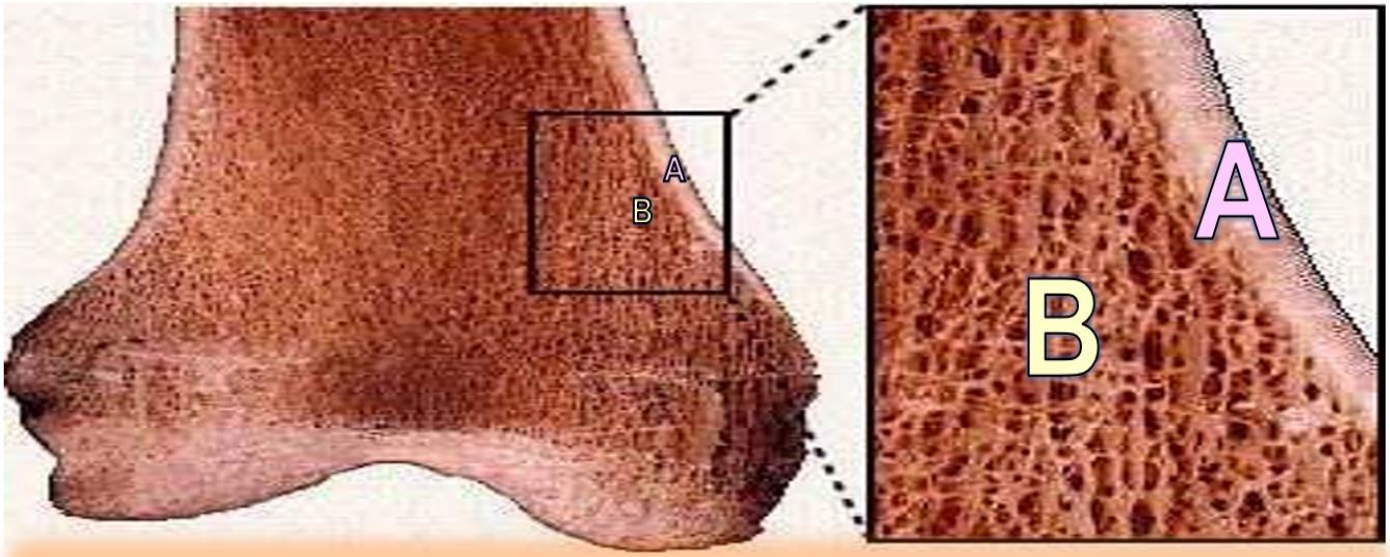
Spongy bone or soft bone contains bone _____. (Cancellous bone)

Bone Marrow contains many _____ vessels.

Red Marrow: Creates red and white _____ cells.

Yellow: Contains _____ cells

Describe the two types of bones, and bone marrow below



_____Skeleton: The supportive structure of the body oriented along its median longitudinal axis

_____ Skeleton: Attaches to something, the extremities.

Bones are categorized into several groups.

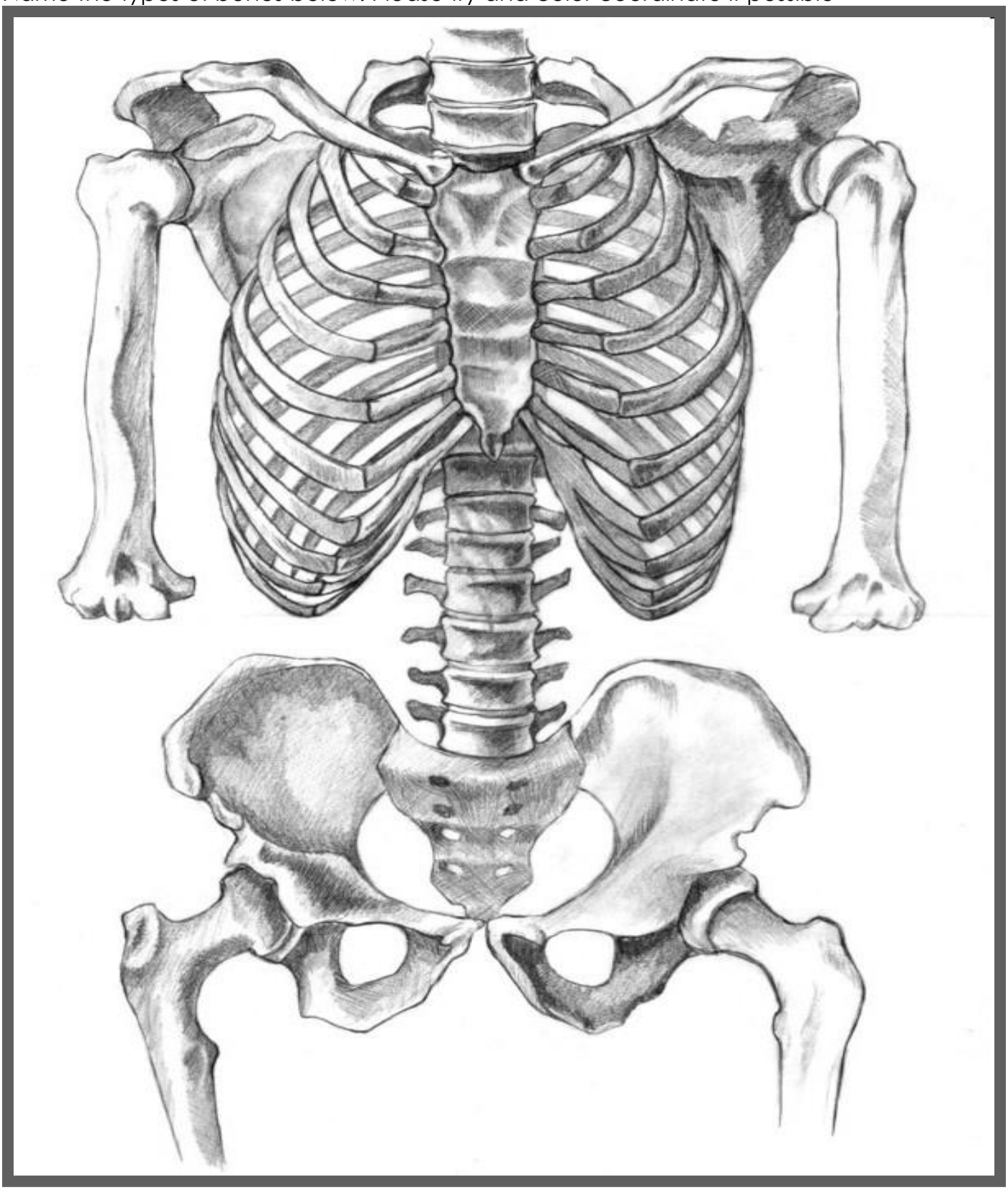
_____ Bones

_____ Bones

_____Bones

_____ Bones

Name the types of bones below. Please try and color coordinate if possible

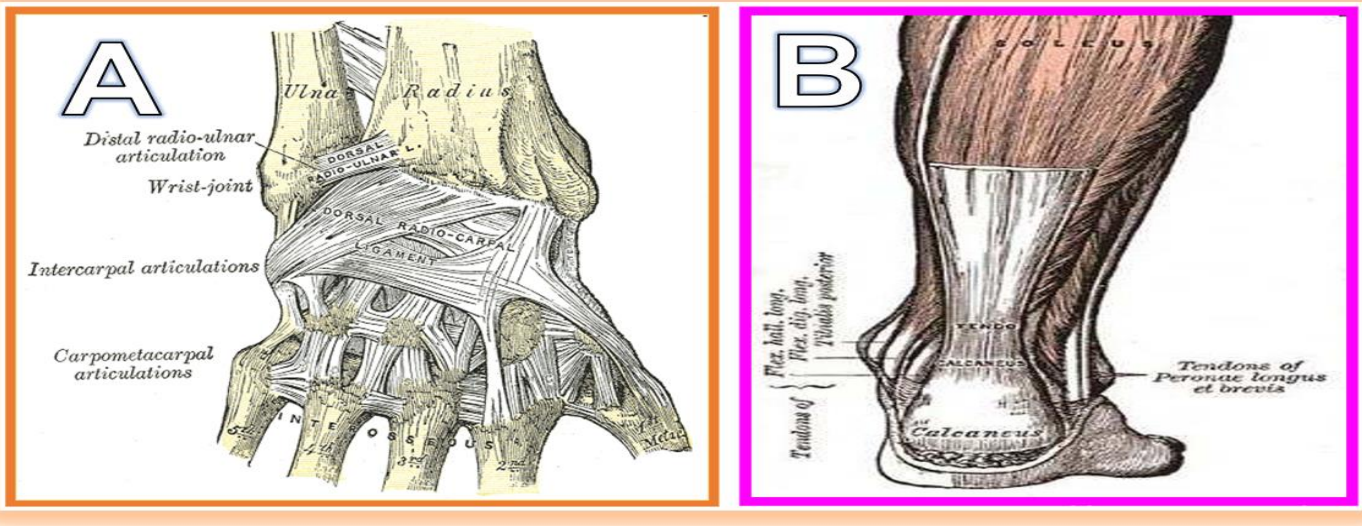


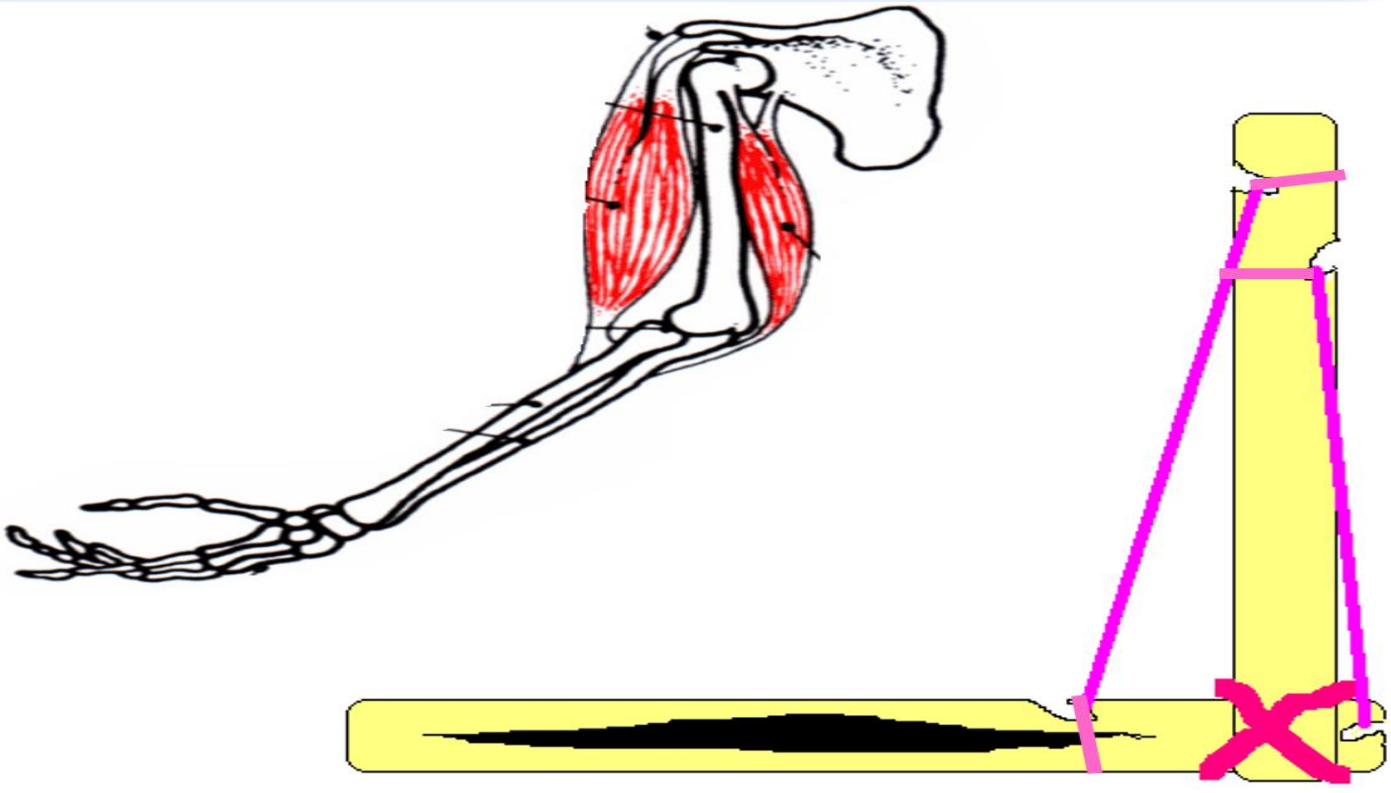
Bones are held together by connective tissues.

Ligaments: Bones to _____

Tendons: Bones to _____

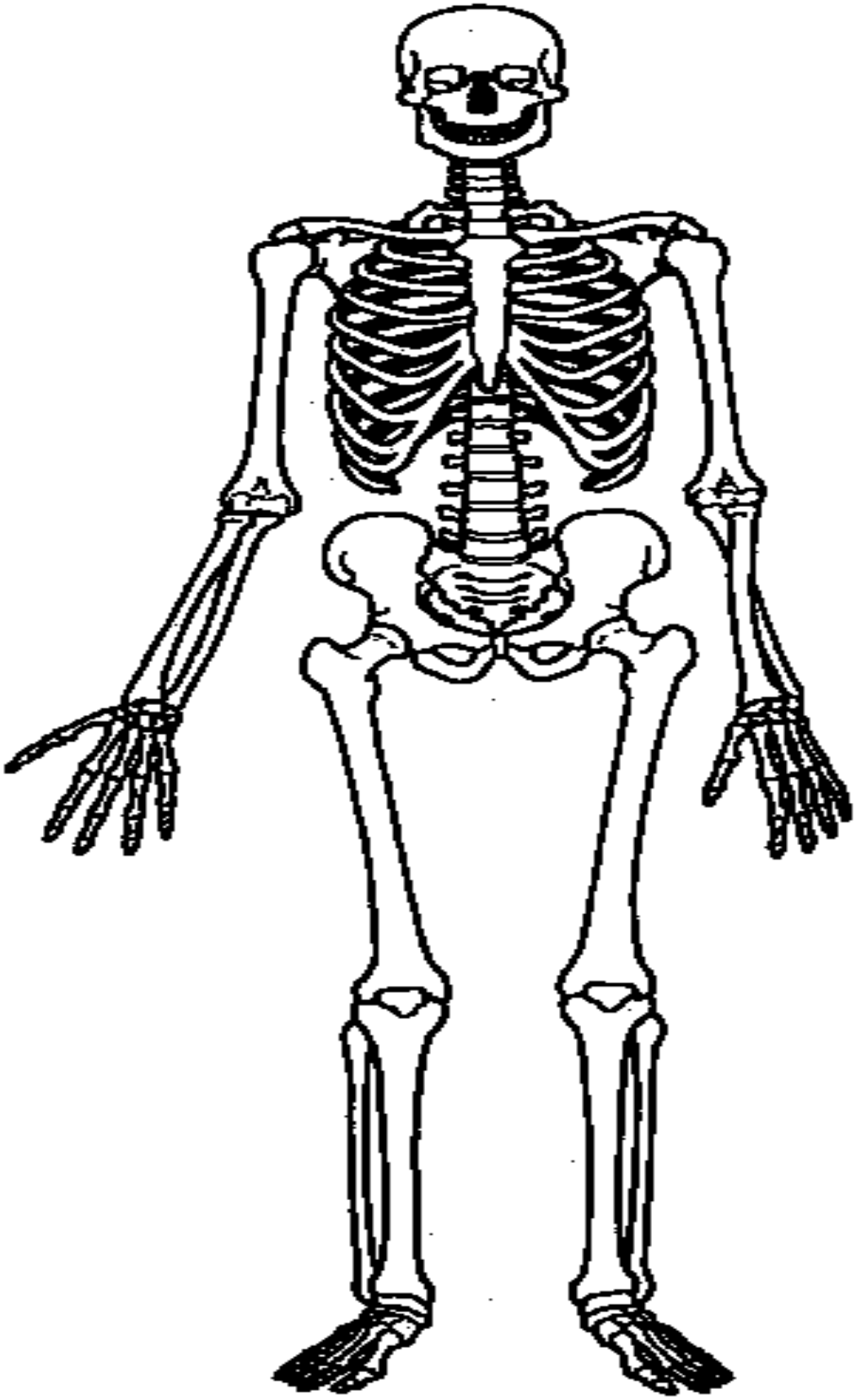
Which is a ligament and which is a tendon?





Part 2 Lesson 4 Common Bones in the Human Body

Name the common bones in the human body below as described in the slideshow



Quiz Wiz! 1-10 Bones of the Human Body.

1)	2)	3)
4)	5)	6)
7)	8)	9)
10)	*11)	

Part 2 Lesson 5 Skeletal Joints

The human skeletal system… (FFF)

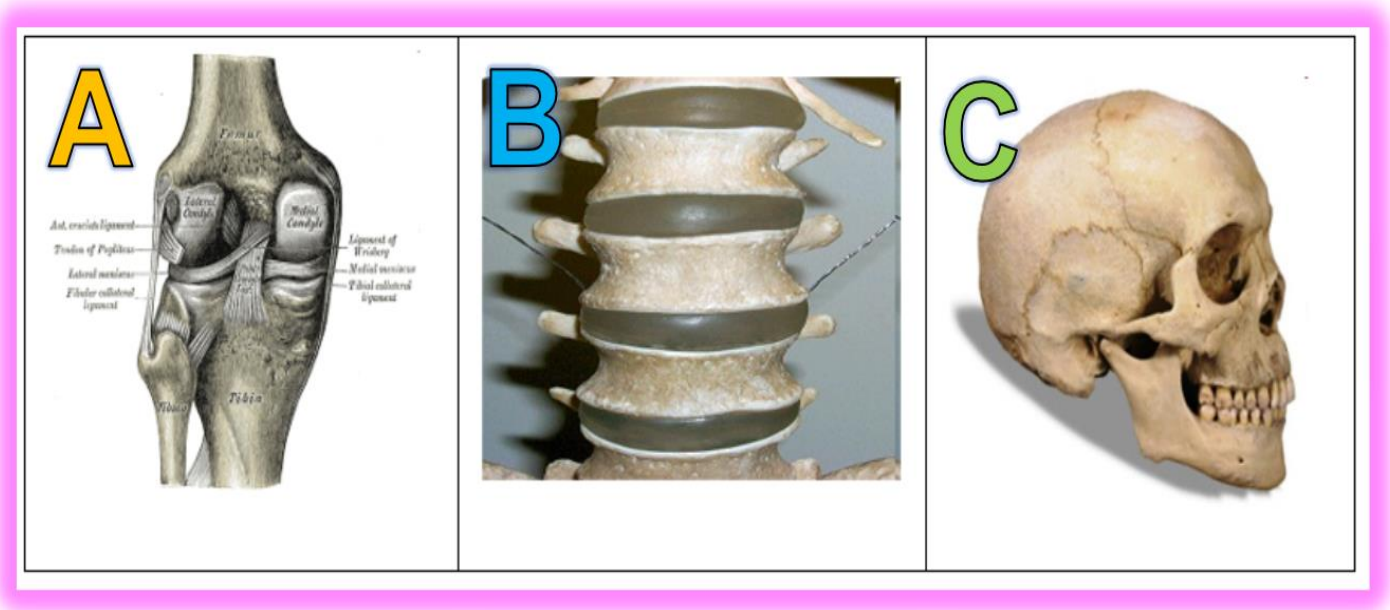
- Incredibly strong
- Light weight
- Can _____and _____ itself.

A human joint: A place where two bones _____.

Joints can be…

A.) _____ (immovable)
B.) _____ (partially movable)
C.) _____(freely movable)

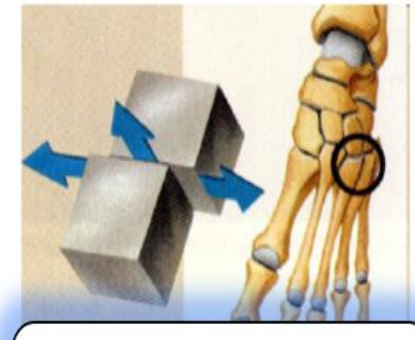
◊ Please place the correct term below the appropriate picture?
Word Bank: Fibrous (immovable) Cartilaginous (partially movable) Synovial (freely movable)

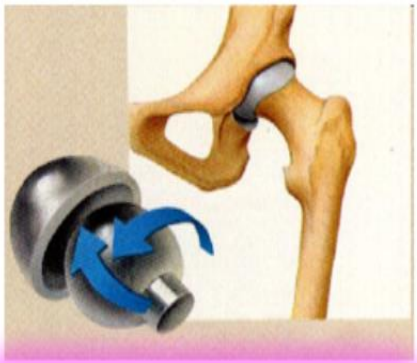


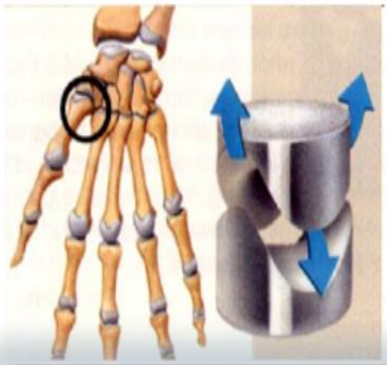
The six types of human joints.

Ball and _____ Joint: Radial movement in almost _____ direction.
Hips and Shoulders.
Ellipsod Joint: Similar to ball and socket but much less.
Hinge Joint: Allows _____ and retraction.
Pivot Joint: Rotation around an _____ (Neck and forearms)
Saddle Joint: Movement back and forth and _____ and _____.
Gliding Joint: Bones _____ past one another.

Name the type of joint below? ◊ In just a few words…What does the joint do? Remember, FFF (Form Follows Function)

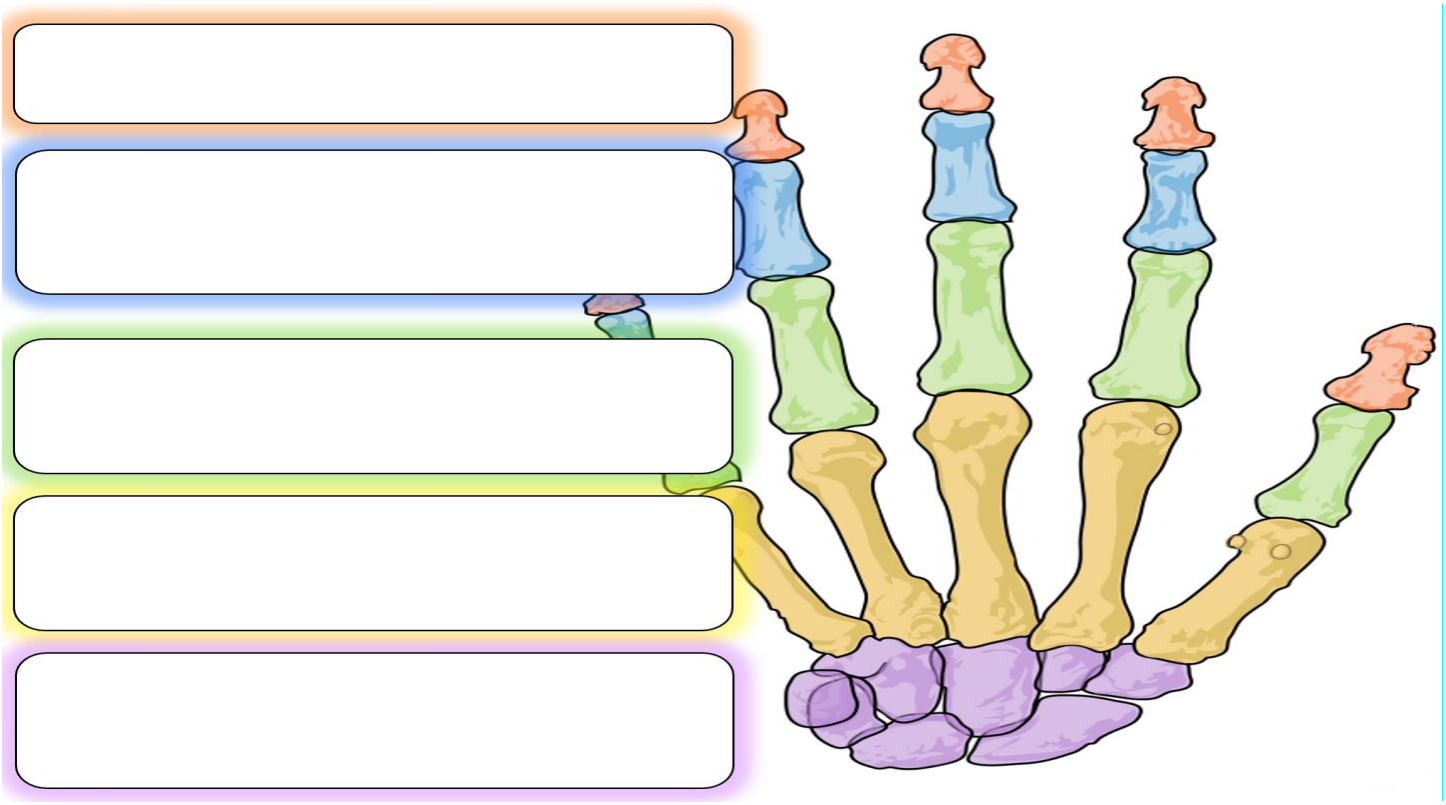






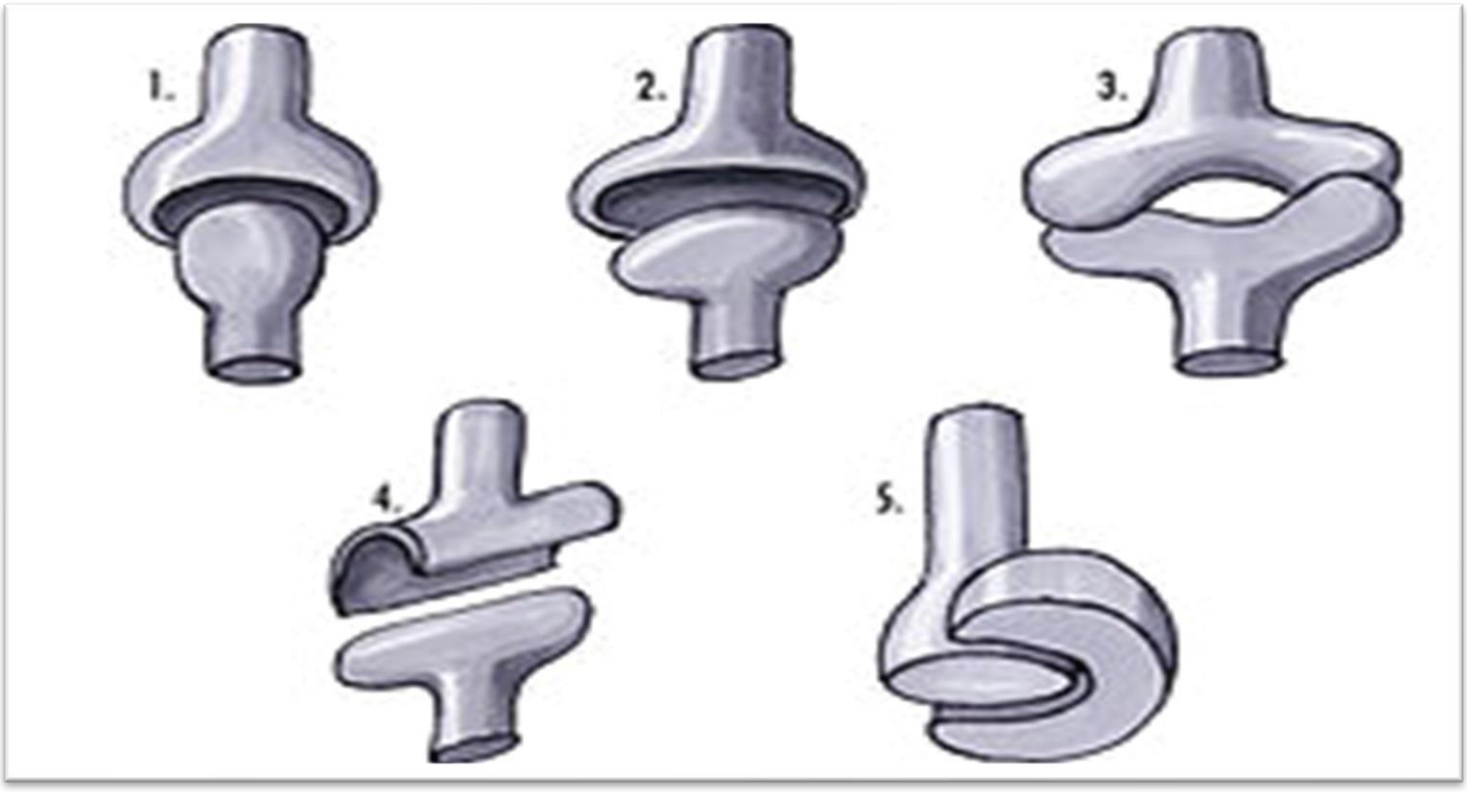
Part 2 Lesson 6 Biomechanical Hand

Name the bones of the human hand?



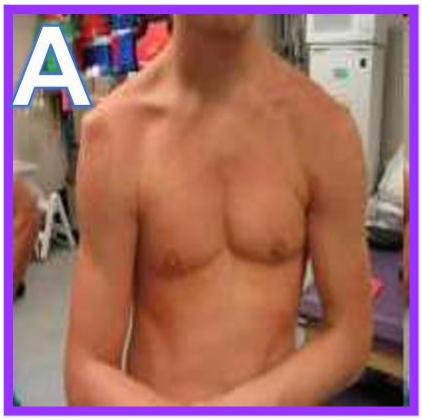
Part 2 Lesson 7 Joints, Injuries and Wrap-Up

Name the joints below?



Some common injuries are…

Name the common injuries below?



What is PRICE when dealing with a common injury?

Across

1. A human _____: A place where two bones meet.
4. Bones are held together by connective tissues. These connect Bones to muscles
6. Joints can be… A.) Fibrous (immovable) B.) _____ (partially movable) C.) Synovial (freely movable)
10. Traumatic _____ Injury (TBI) A blow to the head that disrupts normal brain function.
11. These cell make new bone and help repair damage.
15. This is found in the center of most bones and has many blood vessels
16. Joints can be… A.) _____ (immovable) B.) Cartilaginous (partially movable) C.) Synovial (freely movable)
17. There are two main categories of bones. Spongy Bone (Cancellous bone) C_____Bone
18. _____ Joint: Allows extension and retraction.
19. There are two main categories of bones. _____ Bone (Cancellous bone) Compact Bone
22. Bones are held together by connective tissues. These connect Bones to bones

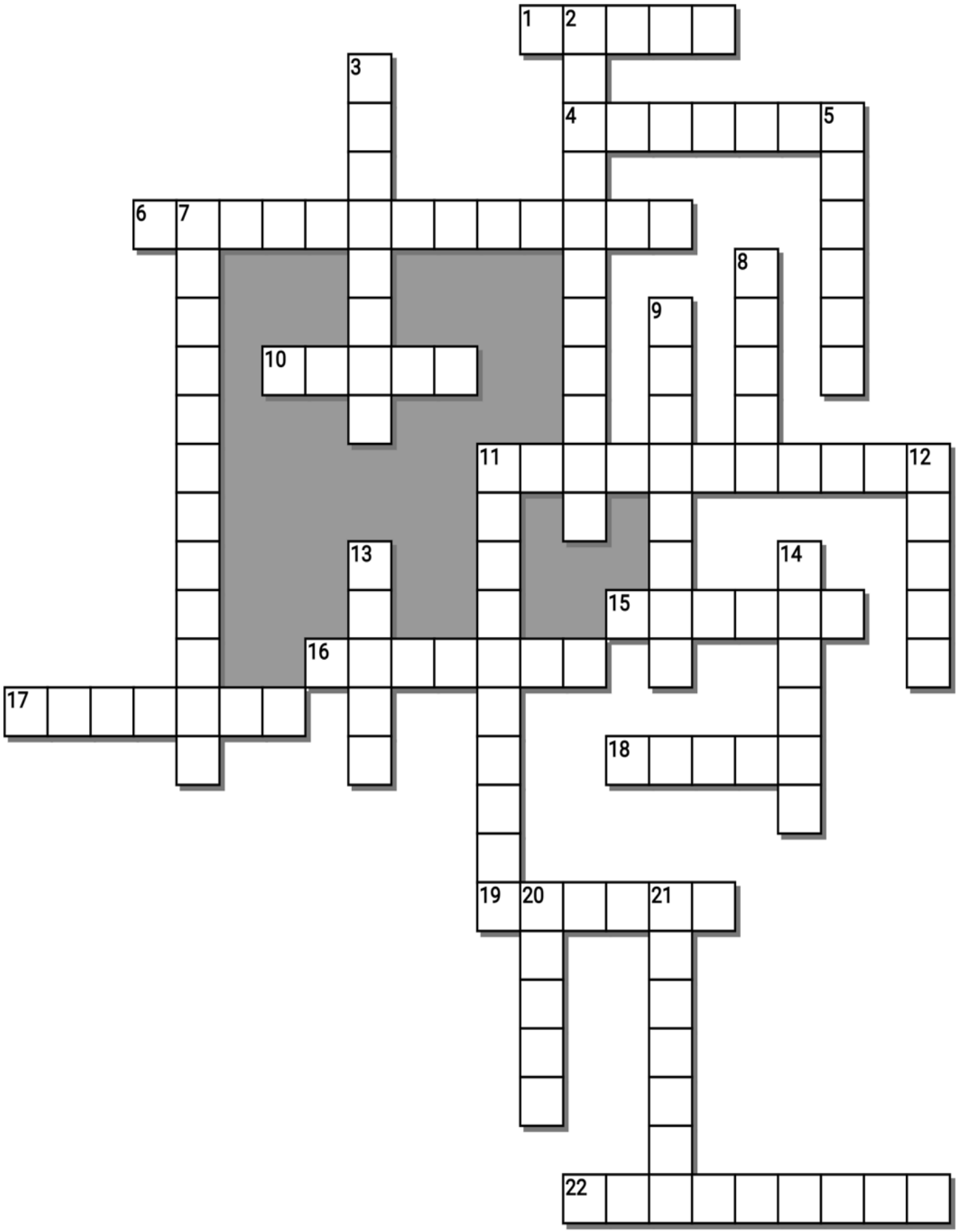
Down

2. These bone cells break down bone and help to sculpt and shape it.
3. The _____ system is your body's central framework. It consists of bones and connective tissue, including cartilage, tendons, and ligaments.
5. _____ Joint: Movement back and forth and up and down.
7. _____ Skeleton: Attaches to something, the extremities.
8. _____ Skeleton: The supportive structure of the body oriented along its median longitudinal axis
9. Joints can be… A.) Fibrous (immovable) B.) Cartilaginous (partially movable) C.) _____ (freely movable)
11. These bones cells carry nutrients and waste products to and from blood vessels in the bone.
12. The skeletal system… -Provides the _____ and form.
13. This is a nice acronym to remember when you have an injury. Pressure, Rest, Ice, Compress, Elevate
14. Ball and _____ Joint: Radial movement in almost any direction. Hipsand Shoulders.
20. _____ Joint: Rotation around an axis\, Neck and forearms
21. _____ Joint: Bones slide past one another.

----------Teacher can remove this word bank to make puzzle more challenging----------

Possible Answers

AXIAL, SHAPE, APPENDICULAR, BRAIN, CARTILAGINOUS, COMPACT, FIBROUS, GLIDING, HINGE, LIGAMENTS, MARROW, OSTEOBLASTS, OSTEOCLASTS, OSTEOCYTES, PRICE, PIVOT, SADDLE, SOCKET, SPONGY, SYNOVIAL, TENDONS, JOINT, SKELETAL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Part 2 Review Game

Name:

Due: Today

1-20 = 5 pts
*20-*25 * = Bonus + 1 pt,
(Secretly write owl in correct space +1 pt)
Final Question = 5 pt wager

Score ____ / 100

GIVE THE DOG A BONE	BARE BONES	JOINT EFFORT	MUSCLE UP	SKELETONS Bonus round 1 pt each
1)	6)	11)	16)	*21)
2)	7)	12)	17)	*22)
3)	8)	13)	18)	*23)
4)	9)	14)	19)	*24)
5)	10)	15)	20)	*25)

Final Question Wager _____/5_ Answer:

Part 2 Skeletal System

Name:

Part 2 Lesson 1 Skeletal System

Bone contains three types of cells. These three cells…

-Osteoblasts: Make new bone and help repair damage.

-Osteocytes: Carry nutrients and waste products to and from blood vessels in the bone.

-Osteoclasts: Break down bone and help to sculpt and shape it.

An adult human has 206 bones.

When you are born, you have over 300 bones. They fuse together as you get older.

The skeletal system…

-Provides the shape and form.

-Supports.

-Protects.

- Traumatic brain injury (TBI)

-Produces blood.

-Stores Minerals

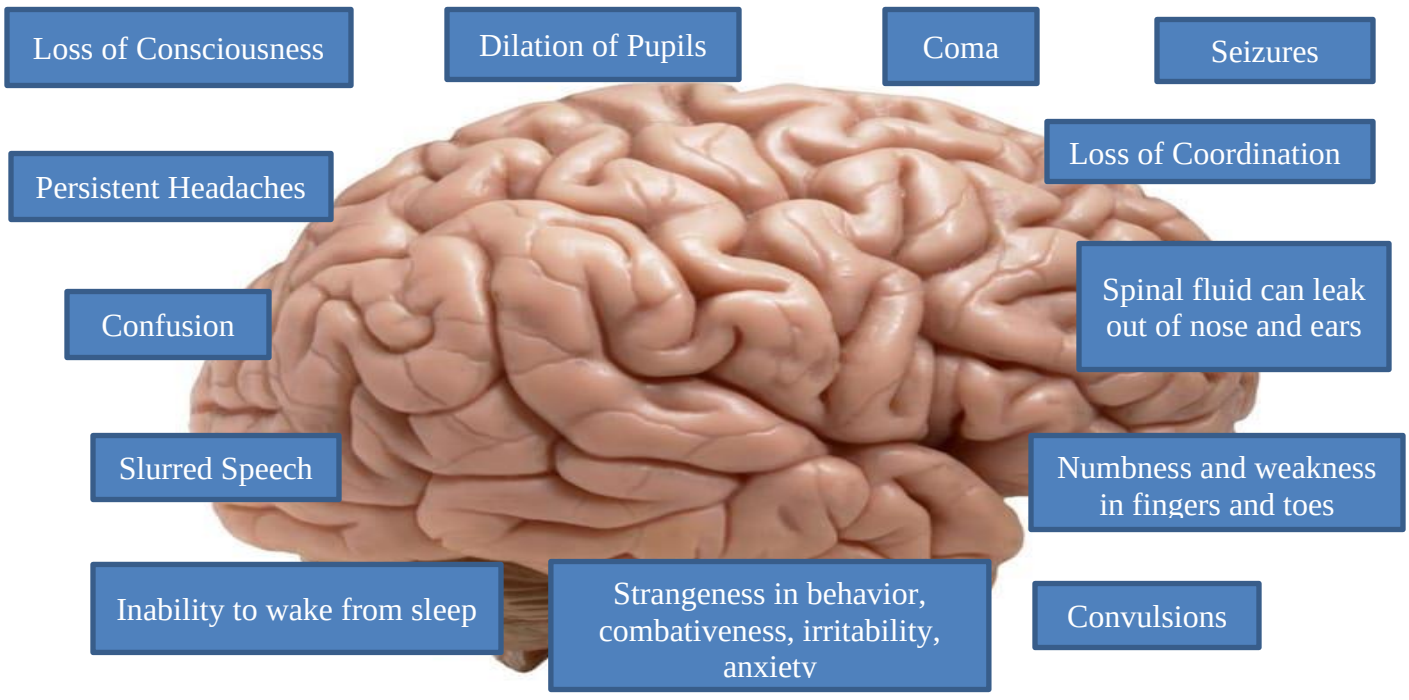
Part 2 Lesson 2 Traumatic Brain Injury

Traumatic brain injury (TBI)

A blow to the head that disrupts normal brain function.

A mild blow to the head can result in being knocked unconscious.

What are some of the effects of injury on the brain? Please record around the brain below



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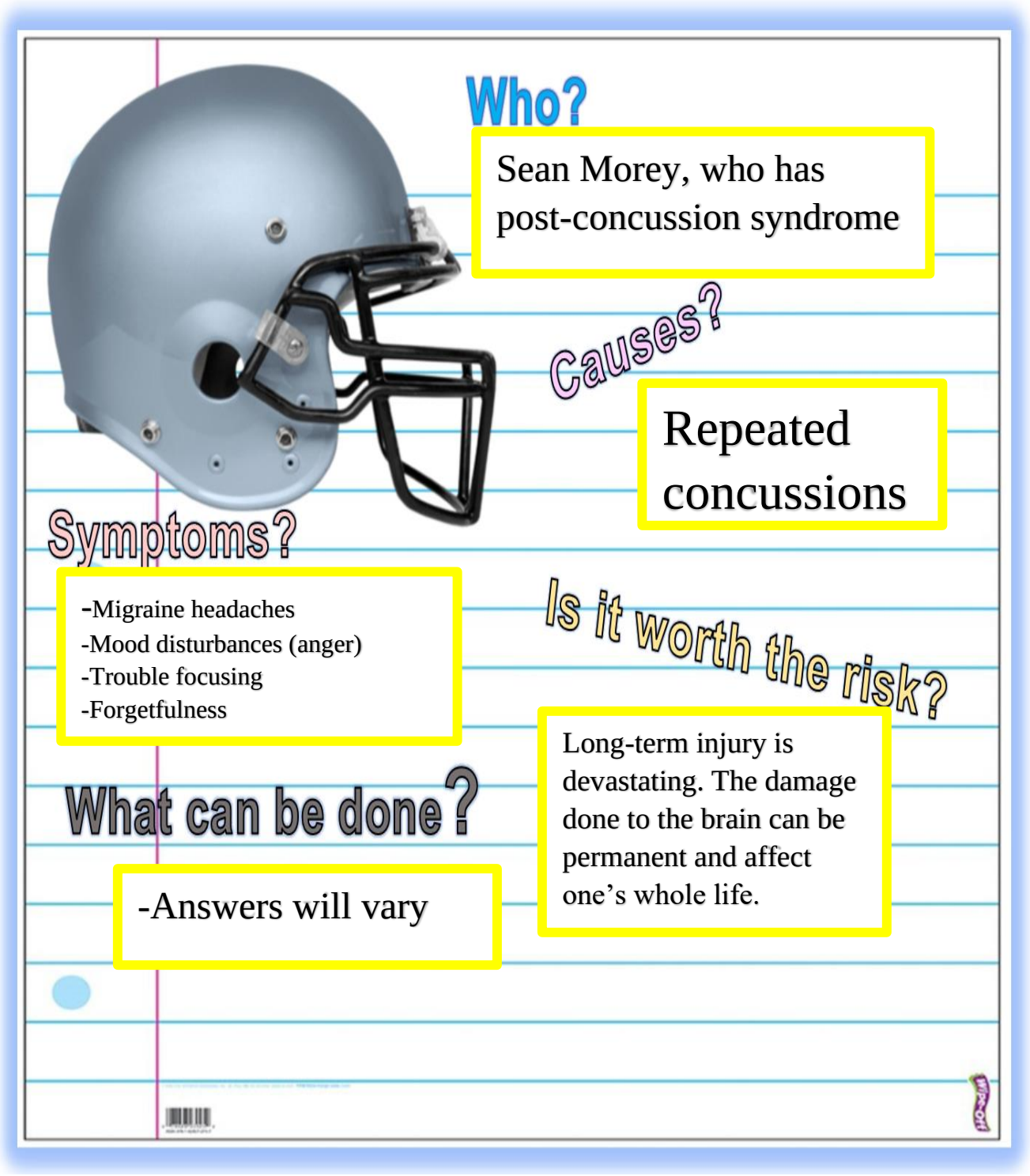


Part 2 Lesson 3 Bones, Ligaments, Tendons

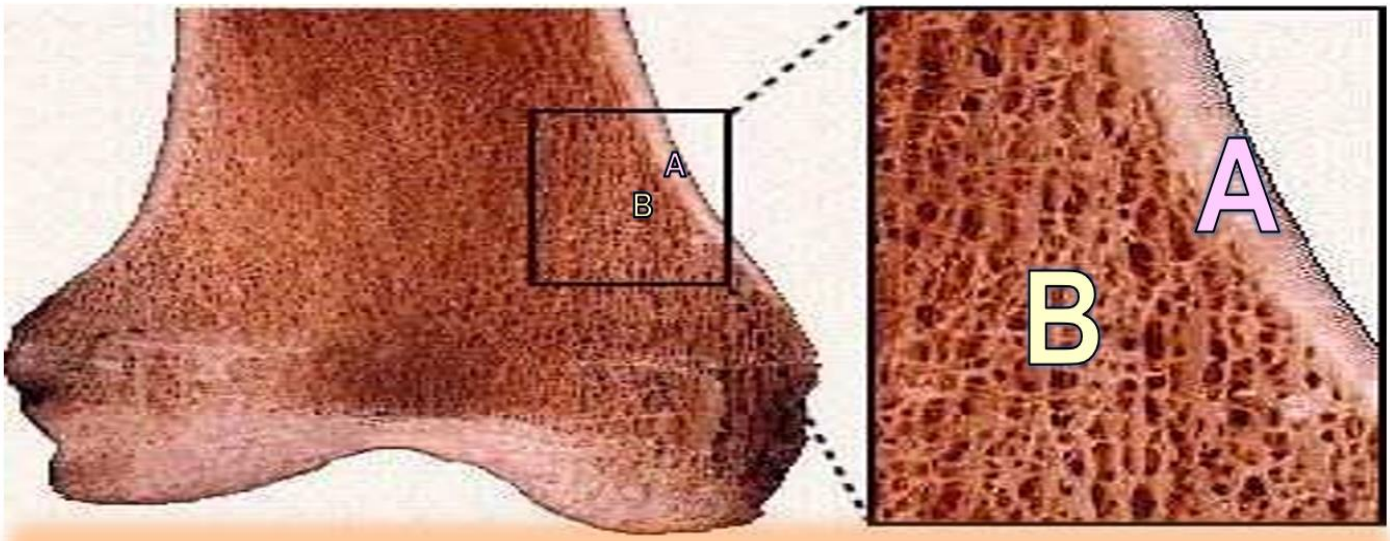
There are two main categories of bones.

Spongy Bone (Cancellous bone)
Compact Bone
Spongy bone or soft bone contains bone marrow. (Cancellous bone)

Bone Marrow contains many blood vessels.

Red Marrow: Creates red and white blood cells.
Yellow: Contains fat cells

Describe the two types of bones, and bone marrow below



A=Compact bone
B=Spongy bone

Compact bone is dense and provides protection and strength. It makes up the outer layer of the bone.

Spongy bone (soft bone) contains bone marrow. It is called cancellous bone and has many pores.

Bone marrow contains blood vessels. Red marrow creates red and white blood cells while yellow marrow contains fat cells.

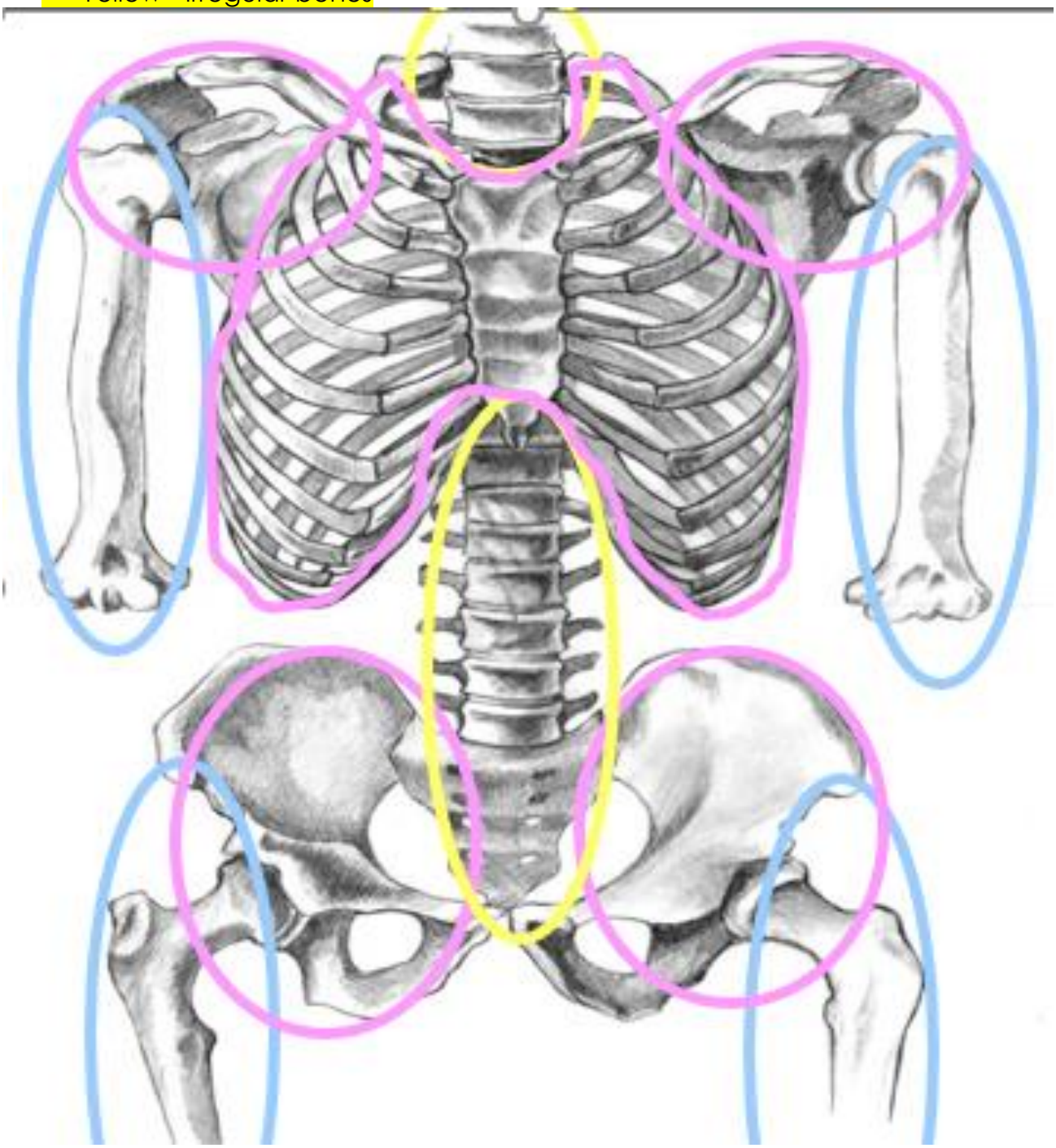
Axial Skeleton: The supportive structure of the body oriented along its median longitudinal axis
Appendicular Skeleton: Attaches to something, the extremities.

Bones are categorized into several groups.

Long Bones
Flat Bones
Irregular Bones
Short Bones

Name the types of bones below. Please try and color coordinate if possible.

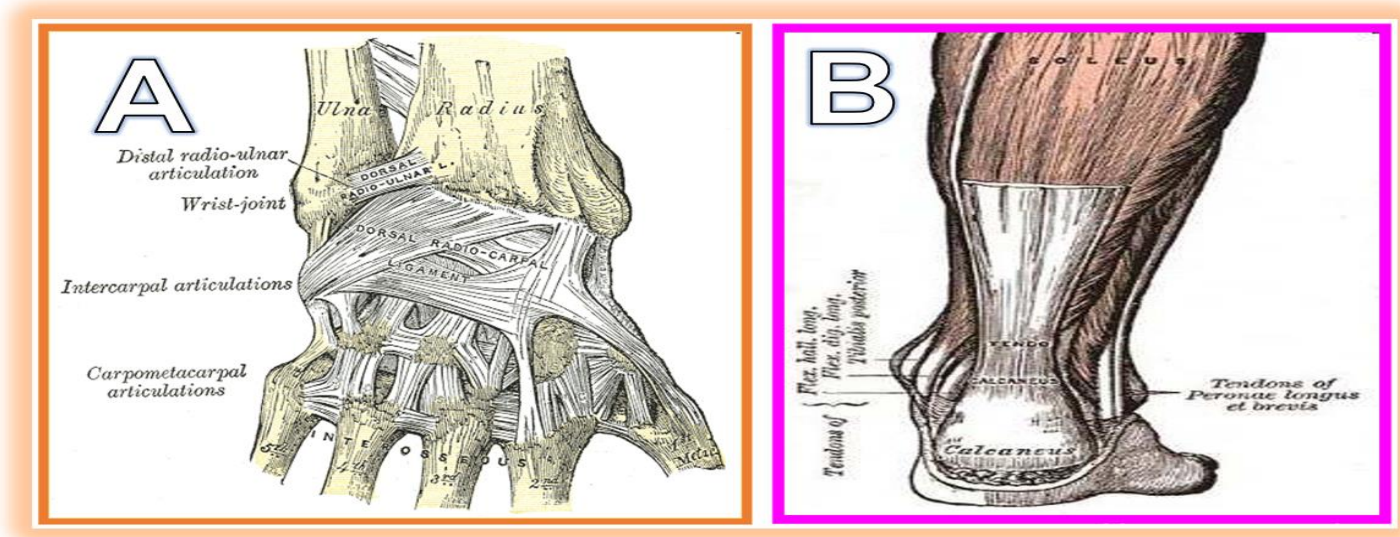
- Blue= Long bones
- Pink= Flat bones
- Yellow= Irregular bones



Bones are held together by connective tissues.

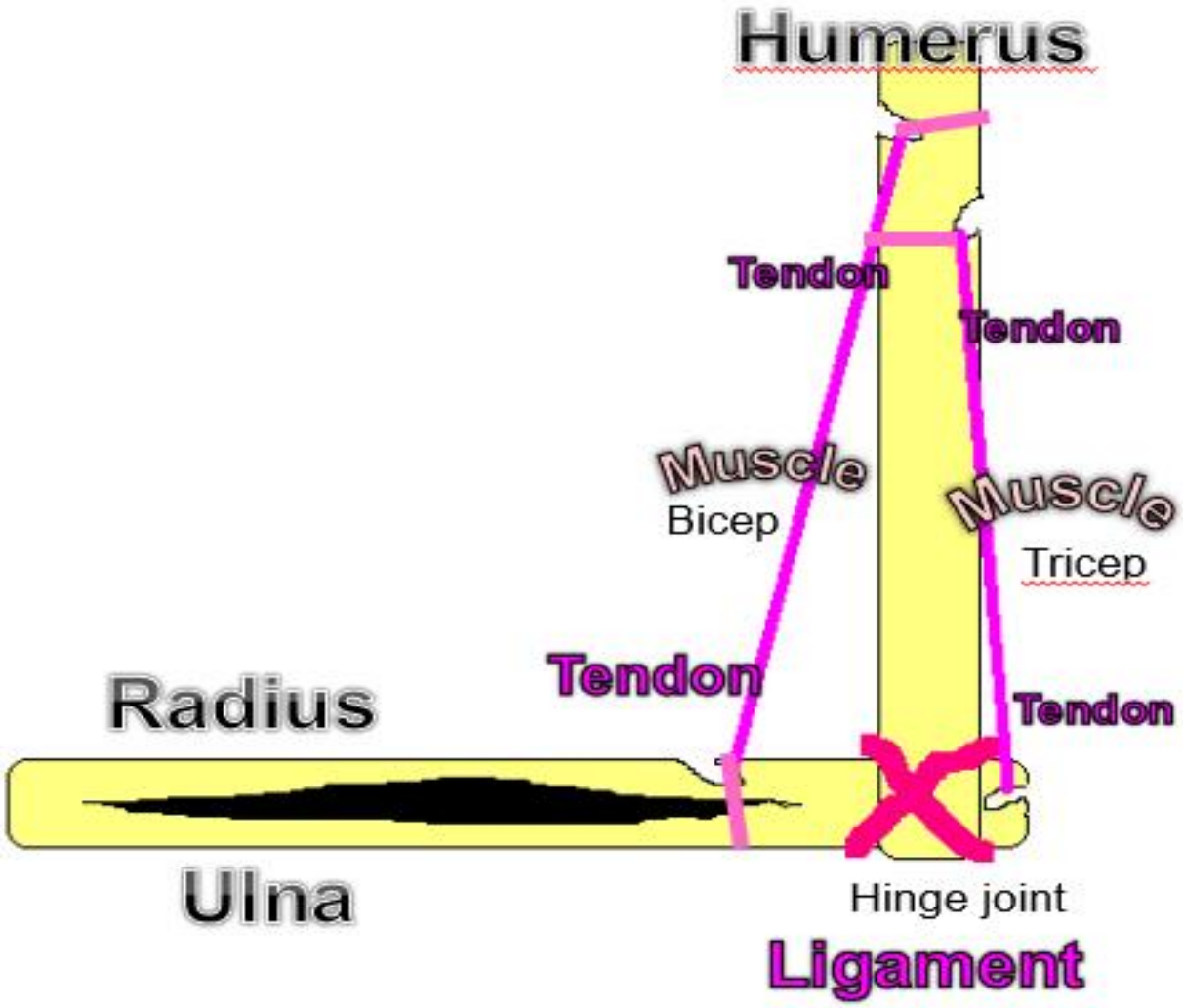
Ligaments: Bones to bones
Tendons: Bones to muscles

Which is a ligament and which is a tendon?



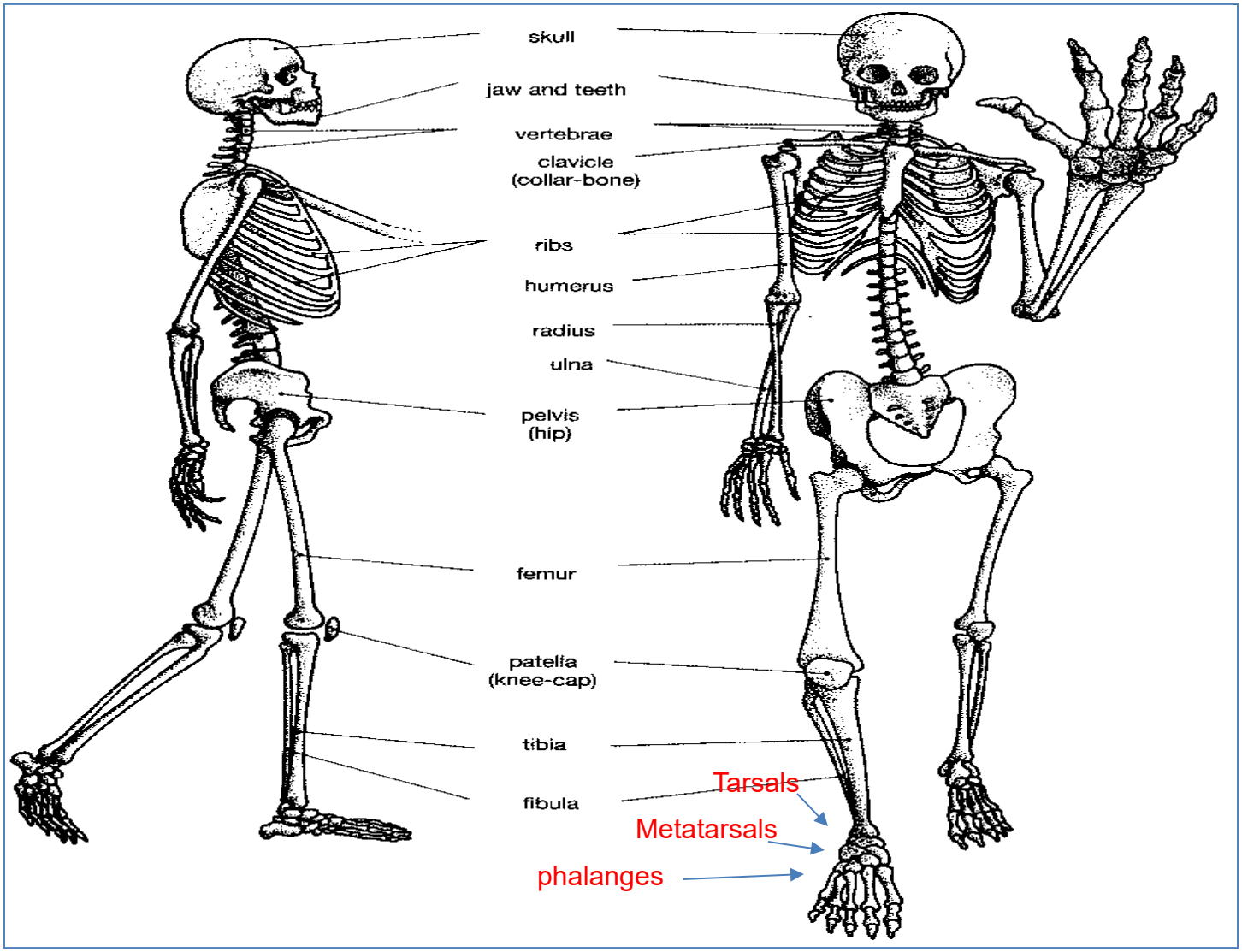
A is a ligament. It connects bone to bone.

B is a tendon. It connects bone to muscle.



Part 2 Lesson 4 Common Bones in the Human Body

Name the common bones in the human body below as described in the slideshow



Quiz Wiz! 1-10 Bones of the Human Body.

1) Fibula, Tibia, Tarsals, Metatarsals, Phalanges	2) Clavicle, Scapula, Humerus	3) Pelvis, Femur
4) Tibia, Fibula, Tarsals, Metatarsals	5) Skull, Mandible	6) Vertebrae
7) Femur, Patella, Tibia	8) Skull, Jawbone Mandible, Vertebrae	9) Sternum, Clavicle, Ribs
10) Ulna, Radius, Carpals, Metacarpals, Phalanges	*11) Book of Life	

Part 2 Lesson 5 Skeletal Joints

The human skeletal system… (FFF)

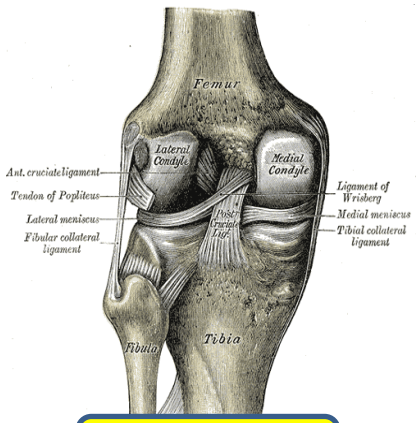
- Incredibly strong
- Light weight
- Can grow and repair itself.

A human joint: A place where two bones meet.

Joints can be…

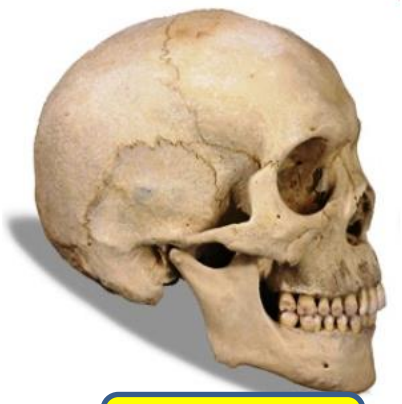
A.) Fibrous (immovable)
B.) Cartilaginous (partially movable)
C.) Synovial (freely movable)

◊ Please place the correct term below the appropriate picture.
Word Bank: Fibrous (immovable) Cartilaginous (partially movable) Synovial (freely movable)



Synovial

Cartilaginous



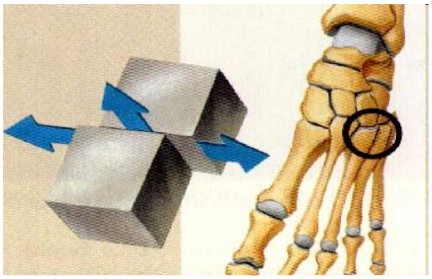
Fibrous

The six types of human joints.

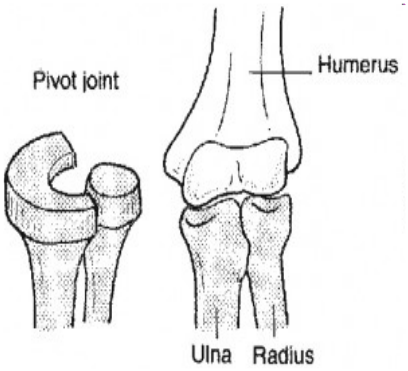
Ball and Socket Joint: Radial movement in almost any direction.
Hips and Shoulders.
Ellipsod Joint: Similar to ball and socket but much less.
Hinge Joint: Allows extension and retraction.
Pivot Joint: Rotation around an axis
Neck and forearms.
Saddle Joint: Movement back and forth and up and down.
Gliding Joint: Bones slide past one another.

Name the type of joint below? ◊ In just a few words…What does the joint do? Remember, FFF (Form Follows Function)

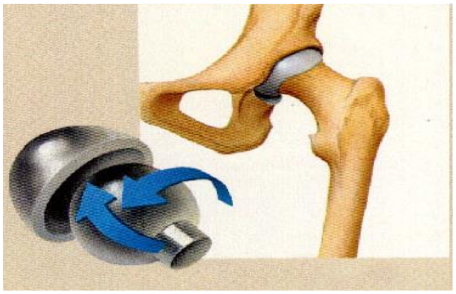
Gliding joint. Bones slide past one another.



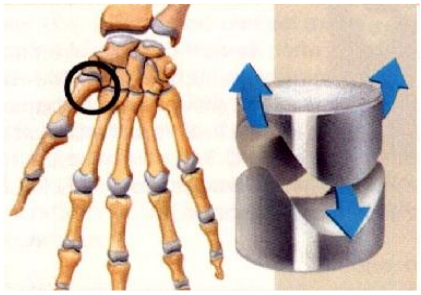
Pivot joint. Rotation around an axis.



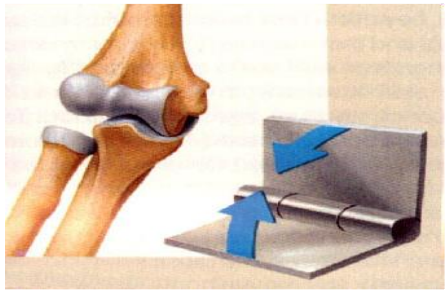
Ellipsoid joint. Similar to ball and socket but much less.



Ball and socket joint. Allows radial movement in almost any direction.



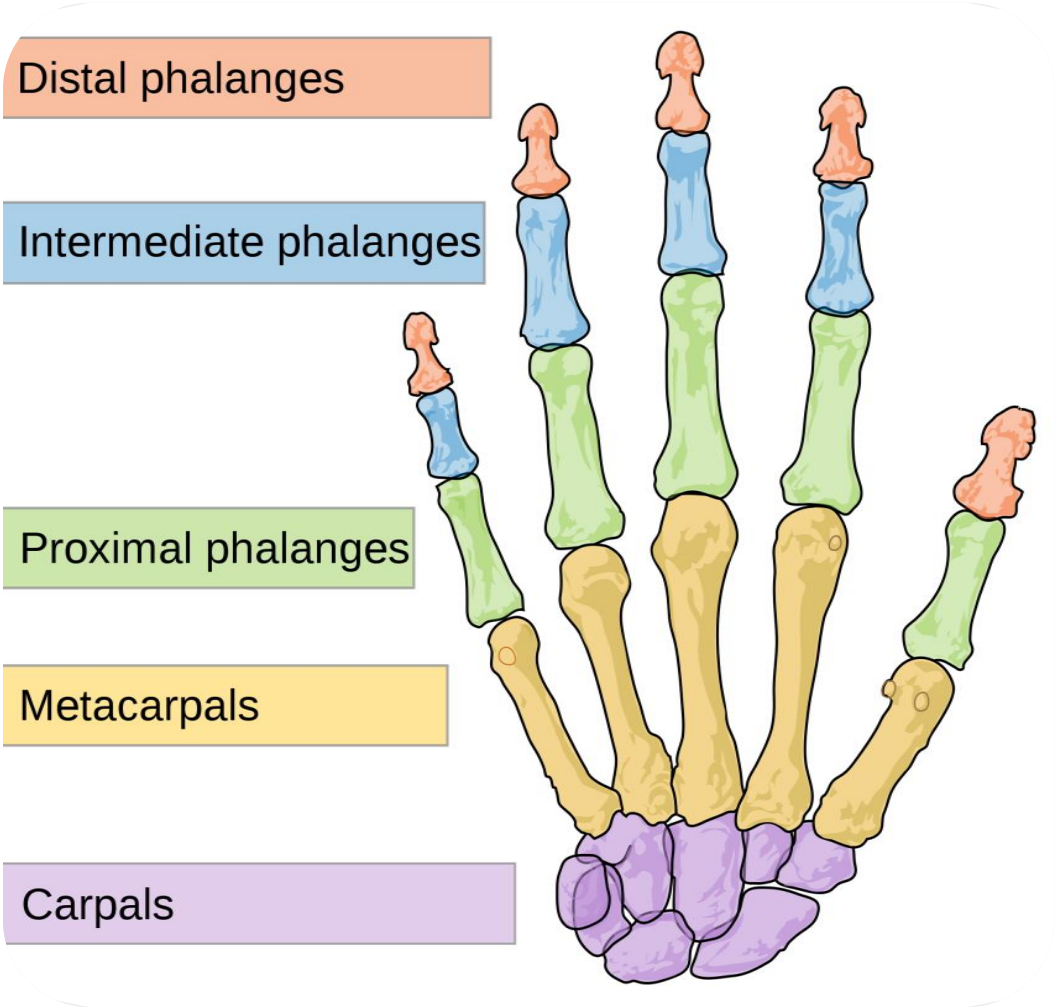
Saddle joint. Movement back and forth and up and down.



Hinge joint. Allows extension and retraction.

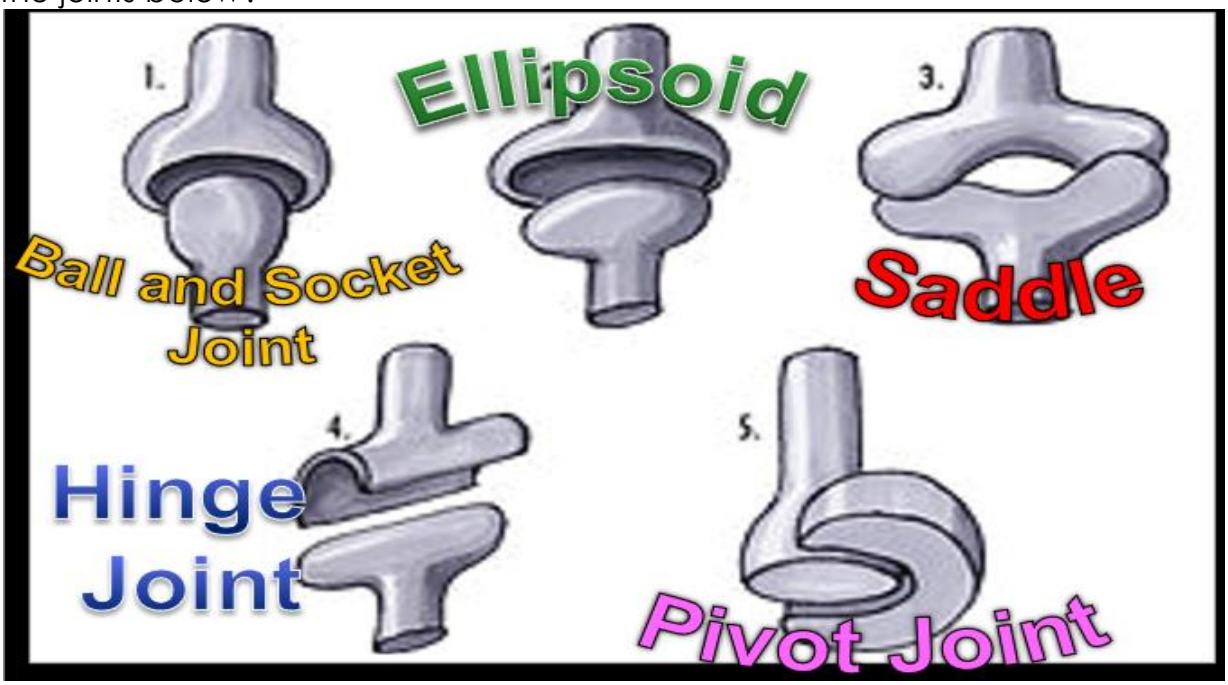
Part 2 Lesson 6 Biomechanical Hand

Name the bones of the human hand?



Part 2 Lesson 7 Joints, Injuries and Wrap-Up

Name the joints below?



Some common injuries are…

Sprains
Fractures
Dislocations

Name the common injuries below?

A= Dislocation

B= Fracture

C= Sprain

What is PRICE when dealing with a common injury?

Protection-protect area with something like a brace	Rest- limit movement	Ice- reduces swelling and helps stop bleeding	Compression- applying pressure to help stop the bleeding	Elevation- raising the injured area above the rest of the body to reduce swelling

Across

1. A human _____: A place where two bones meet.
4. Bones are held together by connective tissues. These connect Bones to muscles
6. Joints can be… A.) Fibrous (immovable) B.) _____ (partially movable) C.) Synovial (freely movable)
10. Traumatic _____ Injury (TBI) A blow to the head that disrupts normal brain function.
11. These cell make new bone and help repair damage.
15. This is found in the center of most bones and has many blood vessels
16. Joints can be… A.) _____ (immovable) B.) Cartilaginous (partially movable) C.) Synovial (freely movable)
17. There are two main categories of bones. Spongy Bone (Cancellous bone) C_____Bone
18. _____ Joint: Allows extension and retraction.
19. There are two main categories of bones. _____ Bone (Cancellous bone) Compact Bone
22. Bones are held together by connective tissues. These connect Bones to bones

Down

2. These bone cells break down bone and help to sculpt and shape it.
3. The _____ system is your body's central framework. It consists of bones and connective tissue, including cartilage, tendons, and ligaments.
5. _____ Joint: Movement back and forth and up and down.
7. _____ Skeleton: Attaches to something, the extremities.
8. _____ Skeleton: The supportive structure of the body oriented along its median longitudinal axis
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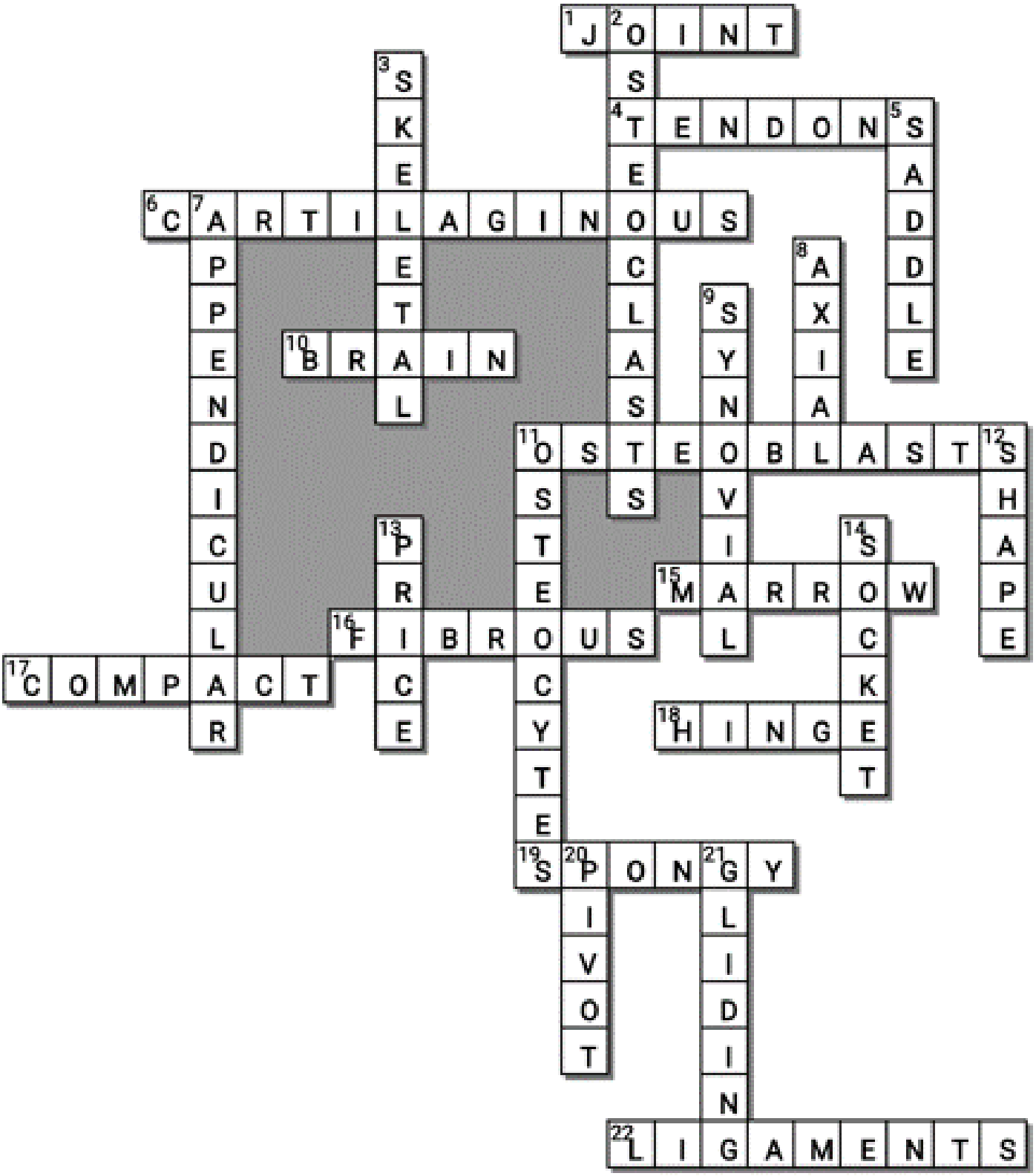
14. Ball and _____ Joint: Radial movement in almost any direction. Hipsand Shoulders.
20. _____ Joint: Rotation around an axis\, Neck and forearms
21. _____ Joint: Bones slide past one another.

----------Teacher can remove this word bank to make puzzle more challenging----------

Possible Answers

AXIAL, SHAPE, APPENDICULAR, BRAIN, CARTILAGINOUS, COMPACT, FIBROUS, GLIDING, HINGE, LIGAMENTS, MARROW, OSTEOBLASTS, OSTEOCLASTS, OSTEOCYTES, PRICE, PIVOT, SADDLE, SOCKET, SPONGY, SYNOVIAL, TENDONS, JOINT, SKELETAL



Part 2 Review Game

Name:

Due: Today

1-20 = 5 pts
*20-*25 * = Bonus + 1 pt,
(Secretly write owl in correct space +1 pt)
Final Question = 5 pt wager

Score ____ / 100

GIVE THE DOG A BONE	BARE BONES	JOINT EFFORT	MUSCLE UP	SKELETONS Bonus round 1 pt each
1) Make muscle fibers contract and relax	6) Tendon, ligament	11) Hinge joint	16) 206 bones in adult human	*21) Captain Jack Sparrow
2) Red= creates blood cells Yellow= fatty	7) A= Fibula B= Tibia C= Tarsals D= Metatarsals	12) Pivot joint	17) Awareness	*22) Cobra Kai
3) Provides oxygen	8) A= Clavicle B= Humerus C= Radius D= Ulna E= Scapula	13) Ball and socket joint	18) A= Spongy bone (cancellous bone) B= Compact bone	*23) Jack the Pumpkin King from The Nightmare Before Christmas
4) A= axial B= appendicular	9) A= Irregular, vertebrae B= Flat bones, pelvis C= Long bones, femur	14) A= Saddle joint, metacarpals B= Gliding joint, metatarsals	19) Osteoporosis	*24) The Book of Life
5) A= Long bone B= Short bone C=Irregular bone D= Flat bone	10) A= Cartilaginous B= Fibrous C= Synovial	15) Sends impulses to the muscles	20) True	*25) The Goonies

TBI stands for Traumatic Brain Injury

Final Question Wager _____/5_ Answer: