

Name: \_\_\_\_\_

## STUDY GUIDE FOR Bone/Muscle/Tissue Quiz!!!

1. cell - **Basic Unit Of Living things**
2. tissue - **cells working together for the same job**
3. epithelial tissue -  
**Tissue that works like a barrier (artery walls)**
4. connective tissue-  
**Tissue that connects or supports (Tendons)**
5. muscle tissue-  
**Tissue that contracts in order to move (smooth muscle in stomach)**
6. nerve tissue-  
**Tissue that carries messages to/from the brain (Spinal Cord)**
7. muscular system-  
**System that helps move body parts, blood, or food particles**

### Tissue section

1. Explain how arteries are an example of all the types of tissues working together.  
ET - Provides a waterproof barrier and smooth surface to flow over  
MT-Acts like a control gate to redirect blood different places  
NT - Allows brain to control where blood is going  
CT - Strong, and connects all the parts
2. Give an example of how epithelial tissue works? **Epithelial tissue works like a force field**  
You just wrote a simile!

### Skeletal Section

3. What type of tissue are bones, cartilage, and ligaments, and why do they fit that category?  
**Connective. They support the body by providing a framework that allows for movement**
4. Bones develop from what material?  
**Cartilage**
5. What type of joint is your knuckle closest to your fingernail?  
**Hinge**
6. What connects bones to bones? And why are they important?  
**Ligaments; restrict Harmful movement**
7. What connects bones to muscles?  
**Tendons**
8. List all five of the functions of the skeletal system.
9. What are the four types of movable joints?  
**Pivot, Ball and Socket, Gliding, Hinge**
10. What makes one joint better for a purpose than another?  
**Different Joints encourage either range of motion or strength and stability**

#### 5 Functions of the Skeletal System

1. Provide Shape and Support
2. Protect Vital Organs
3. Allow Movement
4. Produce RBC's and WBC's
5. Stores Materials

13. What part of the bone is responsible for producing red blood cells? **Bone Marrow**

14. What is the largest bone in your body? **Femur**

14.a. Why is tearing an ACL (the major ligament in your knee) a big deal? **It restricts harmful movement for the knee. Also, the ACL helps provide strength and stability for the knee.**

### **Muscular Section**

15. What are the three types of muscle?

**Smooth, cardiac, and skeletal**

16. Which type is found primarily in the heart?

**Cardiac**

17. Which type (s) is involuntary?

**Cardiac, smooth**

18. Which type is found primarily in the digestive tract?

**Smooth**

19. When muscles become tired it is because they lack what gas?

**Oxygen**

20. Besides oxygen what else do muscles need to obtain energy?

**Sugar**

21. Describe the path that a decision to move your arm takes.

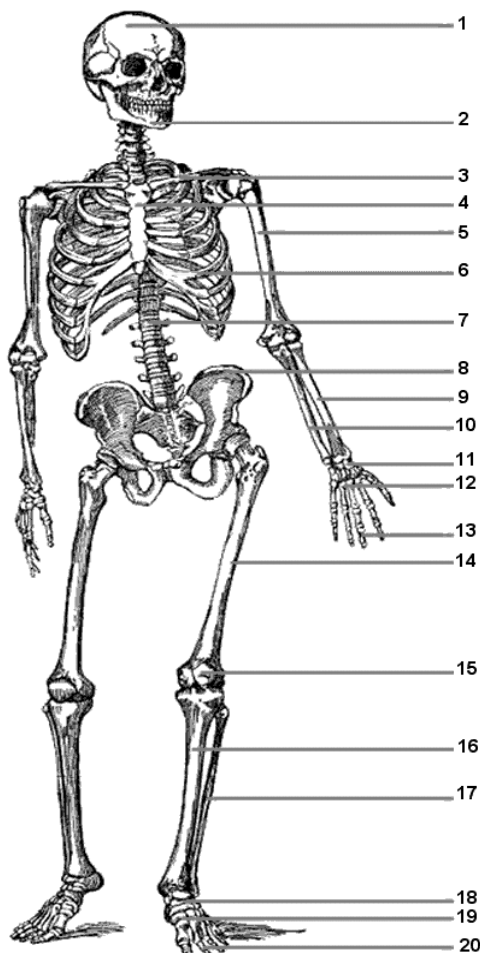
Starts? **Brain**

Carrier? **Nerve**

Mover? **Muscle**

22. Why would a disease that causes the paralysis of smooth muscles to be a life-threatening disorder? **Without smooth muscles, our food could not be digested and our blood would not be pumped as well. This would result in us not getting the nutrients needed to all the body cells.**

23. Explain how muscles work in pairs. **Moving a bone one way requires one muscle to contract while the other relaxes. If you want to move the bone the other way they have to switch, with the relaxed muscle contracting and the contracted muscle relaxing.**



### **Skeletal Labeling**

1. What organ does the cranium (number one) protect? **Brain**

2. What bone does #3 point to? **Clavicle**

3. What is the purpose of the cartilage on bone #6? **To allow the lungs to expand while breathing**

4. What is the name of bone #7? **Vertebra**

5. What is the name of bone #9? **Radius**

6. What is the name of bone #12? **Metacarpals**

7. What is the name of bone #14? **Femur**

8. What is the name of the bone commonly called the kneecap (number #15)? **Patella**

9. What is the name of bone #16? **Tibia**

10. Which number is the humerus marked as? **#5**

11. How many pounds of force can bone #14 withstand? **2000 lbs**

HARD QUESTION! Explain how the skeletal system and muscular system work together in order to assist your body. Make sure to include all five functions of the skeletal system and the function of muscles in your answer. *HINT*, think about how movement of the body is achieved because of the skeletal and muscular systems work together.

The skeletal system provides a framework for our body to be built on. It also provides the muscles with something to pull on when they contract to help us move. The joints in the skeletal system allow for the movement encouraged by the muscles. The skeletal system helps protect vital organs like the stomach which digests food using smooth muscle to help grind it up. The skeletal system also produces the RBC necessary to carry the oxygen to the muscles. Also, the skeletal system can store certain materials necessary to produce energy if the body is not given food.