

DUE: Thurs/Fri March 22/23

Name _____

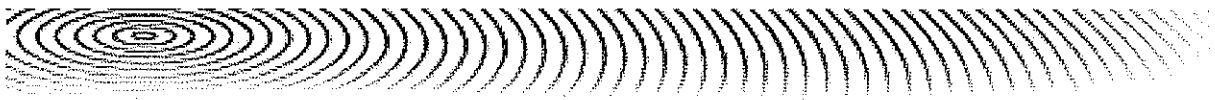
Ch 10 Test is Friday March 30

Period _____

Chapter 10: _____

Section 10.2: _____

Vocabulary Word	Definition	Drawing
Muscular System		
Skeletal Muscle		
Smooth Muscle		
Cardiac Muscle		



Name _____

Period _____

Date _____

SECTION

THE MUSCULAR SYSTEM MAKES MOVEMENT POSSIBLE.

10.2 Reading Study Guide B

BIG IDEA Muscles and bones provide forces and levers to move the body.

KEY CONCEPT The muscular system makes movement possible.

Review

Joints function in several different ways.

Take Notes

I. Muscles perform important functions.

- Complete the chart for the main idea shown.

Muscles perform important functions.	
→	
→	
→	

A. Movement, Maintaining Body Temperature, and Maintaining Posture

- Below each picture, write the important function the muscles are performing.



II. Your body has different types of muscle.

- Complete the chart for the main idea shown.

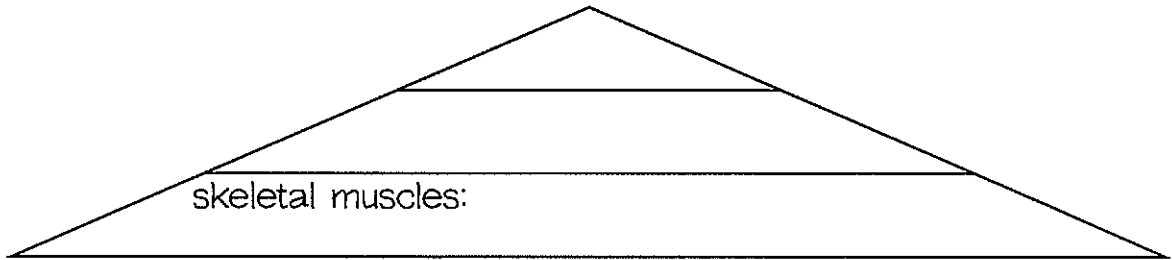
The body has three types of muscle tissue.	
→	
→	
→	

CHAPTER 10
Movement and Forces

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A. Skeletal Muscle

4. Fill in the word triangle for *skeletal muscles*.

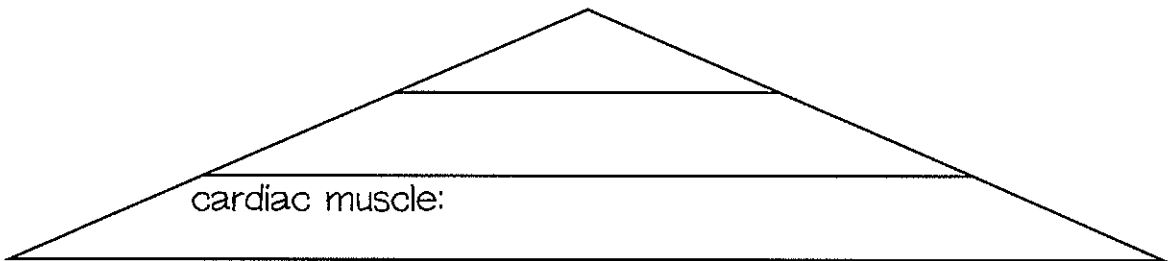


B. Smooth Muscle

5. What is smooth muscle?

C. Cardiac Muscle

6. Fill in the word triangle for *cardiac muscle*.



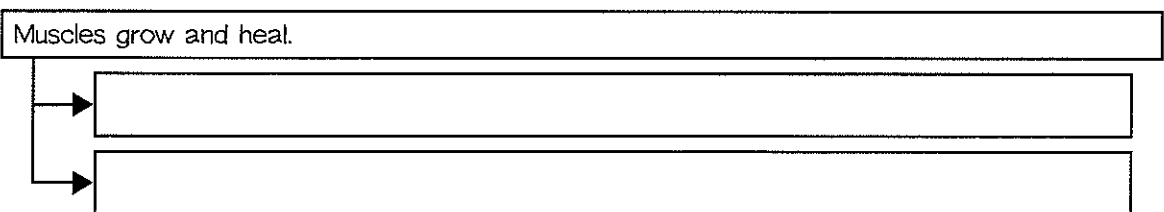
III. Skeletal muscles, tendons, and joints allow bones to move.

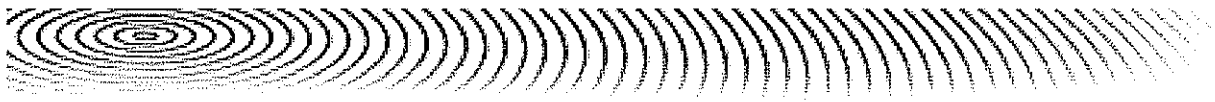
7. How do skeletal muscles work with tendons to cause movement?

8. How do two muscles work together to produce movement?

IV. Muscles grow and heal.

9. Complete the chart for the main idea shown.





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SECTION | THE MUSCULAR SYSTEM MAKES MOVEMENT POSSIBLE.
10.2 Reinforcing Key Concepts

BIG IDEA Muscles and bones provide forces and levers to move the body.

KEY CONCEPT The muscular system makes movement possible.

1. **Muscles perform important functions.** Muscles are involved in all movement that your body does. Muscles perform three important functions. Complete the chart by giving one example that describes each function.

Movement	Body Temperature	Posture

2. **Your body has different types of muscle.** The three types of muscles have different functions, structures, and different locations in the body. Complete the chart below to describe each type of muscle in the body.

Type of Muscle	Where Are They Found?	How Do They Work?
Skeletal		
Cardiac		
Smooth		

3. **Skeletal muscles, tendons, and joints allow bones to move.** Muscles cannot push, they can only pull. Draw a sketch to show how muscles can cause a hinge joint to move. Use arrows to show movement.

4. **Muscles grow and heal.** Like any other tissue in the body, muscles can grow. They can also be injured and then heal.

What can cause muscle soreness? _____

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SECTION

THE MUSCULAR SYSTEM MAKES MOVEMENT POSSIBLE.

10.2 Challenge and Extension

BIG IDEA Muscles and bones provide forces and levers to move the body.

KEY CONCEPT The muscular system makes movement possible.

Muscular Strength and Muscular Endurance When you exercise regularly, your muscles get larger. Bigger muscles improve both muscular strength and muscular endurance. Muscular strength is the ability of a muscle to exert an amount of force at any one time. Muscular endurance is the ability of a muscle to contract many times or to hold a contraction for a long period of time.

Good strength and endurance benefit your health and wellness by

- enabling you to work and play longer without getting tired
- helping prevent backaches, muscle soreness, and injuries

You can improve your muscular strength and endurance through resistance exercises, that is, exercises that involve a force acting against your muscles. Building strength usually requires doing an exercise only a few times but using more resistance. Building endurance usually requires doing an exercise more times but using less resistance.

Before you start on an exercise program, you should check with a health professional.

1. Describe a situation in which having good muscular strength is helpful, and a situation in which having good muscular endurance is helpful.

Muscular strength: _____

Muscular endurance: _____

2. Choose one sport and give it a 1–4 rating for strength and endurance. Explain.

3. What kind of injuries might occur when exercising improperly?

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10. Your *ribs and spinal column* are part of your axial skeleton.

11. The input lever arm is the distance from the *output force to the fulcrum*.

12. Cartilage is a *weak and flexible* tissue.

B. EXAMPLES

On the line, write the vocabulary word that matches the examples and descriptions given.

13. When you run you are using these muscles.

14. A push or pull

15. The rod of a lever pivots or turns around this.

16. In a third-class lever, this is less than one.

C. DIAGRAM

Draw a diagram of a lever on a separate sheet of paper. Label its parts and the forces that act on it. Use as many vocabulary words as you can.