

1 **Opposites** Complete the list below by writing the correct opposite for the word listed.  
 a. Black/ \_\_\_\_\_ b. right/ \_\_\_\_\_ c. happy/ \_\_\_\_\_ d. walk/ \_\_\_\_\_

2 Muscle **always** move bones by \_\_\_\_\_ they NEVER push.

a. Definition for Origin - \_\_\_\_\_

b. Definition for Insertion - \_\_\_\_\_

c. Term used for Contraction of the muscle: \_\_\_\_\_

d. Term used for Relaxation of the muscle: \_\_\_\_\_

e. Term used for extension beyond normal length: \_\_\_\_\_

Complete the list of "opposites" for the muscles.

f. biceps/ \_\_\_\_\_ g. hamstrings/ \_\_\_\_\_ h. latissimus dorsi/ \_\_\_\_\_ i. Tibialis anterior/ \_\_\_\_\_

j. Vocabulary: **Hypertrophy**= \_\_\_\_\_ of size and strength of the muscle fiber.

k. **Atrophy**= \_\_\_\_\_ of size and strength of the muscle fiber.

L. Muscles get stronger because of .... atrophy **OR** hypertrophy.

3 **Muscle Strength:**

A. Definition: \_\_\_\_\_

B. The Overload Principle Lifting Free Weights:

Explain the overload principle and how it helps to make the muscles stronger.

\_\_\_\_\_

Vocabulary: \_\_\_\_\_ = one resistance movement. \_\_\_\_\_ = number of reps followed by a rest.

**Strength**: Use a high amount of weight and a low number of repetitions. (Written as: 3 x 8 = Three sets of eight repetitions)

When a person does strength training she/he should start light and lift with proper technique to avoid injury.

4 **Muscle Endurance:**

**Endurance**: Use a low amount of weight and a high number of repetitions.

A. Definition: \_\_\_\_\_

B. Write an example of how many sets and repetitions a person would do when lifting for **endurance**.

\_\_\_\_\_ Sets= \_\_\_\_\_ Reps= \_\_\_\_\_

5 **What does the acronym F.I.T.T. represent and explain how a person can exercise to strengthen his/her muscles using FITT.**

F= \_\_\_\_\_ Lifting weights for how many times per week?

I= \_\_\_\_\_ How many repetitions? Lifting for strength or endurance?

T= \_\_\_\_\_ How many sets?

T= \_\_\_\_\_ Muscle Strength or Muscle Endurance?

**Injuries:**

Vocabulary: **sprain**= overstretching of the ligaments **strain**= overstretching of the muscle or tendon

6 Jim injured his biceps tendon. Did he Sprain or Strain the tendon?

7 Sherry injured her Quadriceps muscle when she stopped running full speed to quickly. Did she Sprain or Strain the muscle?

8 John sprained his ankle. Does this mean he injured Ligaments or Muscle / Tendons?

**a. If you were to injure yourself while exercising you should remember "The PRICE is right."**

*(Circle the letter which represents what the acronym represents.)*

P= A. protect B. pamper

R= A. rest B. raise

i= A. injured B. ice

C= A. compression B. compromise

E= A. execute B. elevate

**b. Explain why it is best to use ICE on an acute (recent) injury.**

\*Remember: Muscles always pull the bones in the direction of the movement.

**Identify the major muscles used and write how many reps and sets for strength and endurance.**

9	<b>Bicep-Curls</b>	Strength=	Endurance=	
	Circle the major muscle group(s) being strengthening of the picture to the right.			
	<b>Anterior Side (Front)</b>		<b>Posterior Side (Back)</b>	
	sternomastoid	external obliques	achilles tendon	triceps
	biceps	quadriceps	gluteus maximus	deltoids
	abdominals	pectoralis major	trapezius	gastrocnemius
10	<b>Curl-Ups</b>	Strength=	Endurance=	
	<b>Anterior Side (Front)</b>		<b>Posterior Side (Back)</b>	
	sternomastoid	external obliques	achilles tendon	triceps
	biceps	quadriceps	gluteus maximus	deltoids
	abdominals	pectoralis major	trapezius	gastrocnemius
				latissimus dorsi
				hamstrings
11	<b>Squats</b>	Strength=	Endurance=	
	<b>Anterior Side (Front)</b>		<b>Posterior Side (Back)</b>	
	sternomastoid	external obliques	achilles tendon	gastrocnemius
	biceps	quadriceps	gluteus maximus	latissimus dorsi
	abdominals	pectoralis major	trapezius	hamstrings

#	Heel Raisers	Strength=	Endurance=
	<b><u>Anterior Side (Front)</u></b>	<b><u>Posterior Side (Back)</u></b>	
	sternomastoid	external obliques	achilles tendon
	biceps	quadriceps	triceps
	abdominals	pectoralis major	deltoids
			gastrocnemius
			latissimus dorsi
			hamstrings

Injury identification

13. There are many ligaments in the ankle. If a person hurts their ankle did he or she Sprain or Strain their ankle.

14. A person lands on his or her feet from jumping but their hips and upper body continue to rotate. What injury could result in the knee joint? Torn PCL or Torn ACL

15. Many times a person will have knee pain just below their knee because of a tight I.T. Band.

Which stretches will help to alleviate this pain? List the two major stretches.

a. \_\_\_\_\_ b. \_\_\_\_\_

15. List three ways to rehabilitate shin splints.

a. \_\_\_\_\_ b. \_\_\_\_\_ c. \_\_\_\_\_

17. What are performance enhancing steroids? \_\_\_\_\_

18. What are three physical effects of using performance enhancing steroids? a. \_\_\_\_\_

b. \_\_\_\_\_ c. \_\_\_\_\_

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

**Definitions**

1. Origin - \_\_\_\_\_

3. Extension - \_\_\_\_\_

2. Insertion - \_\_\_\_\_

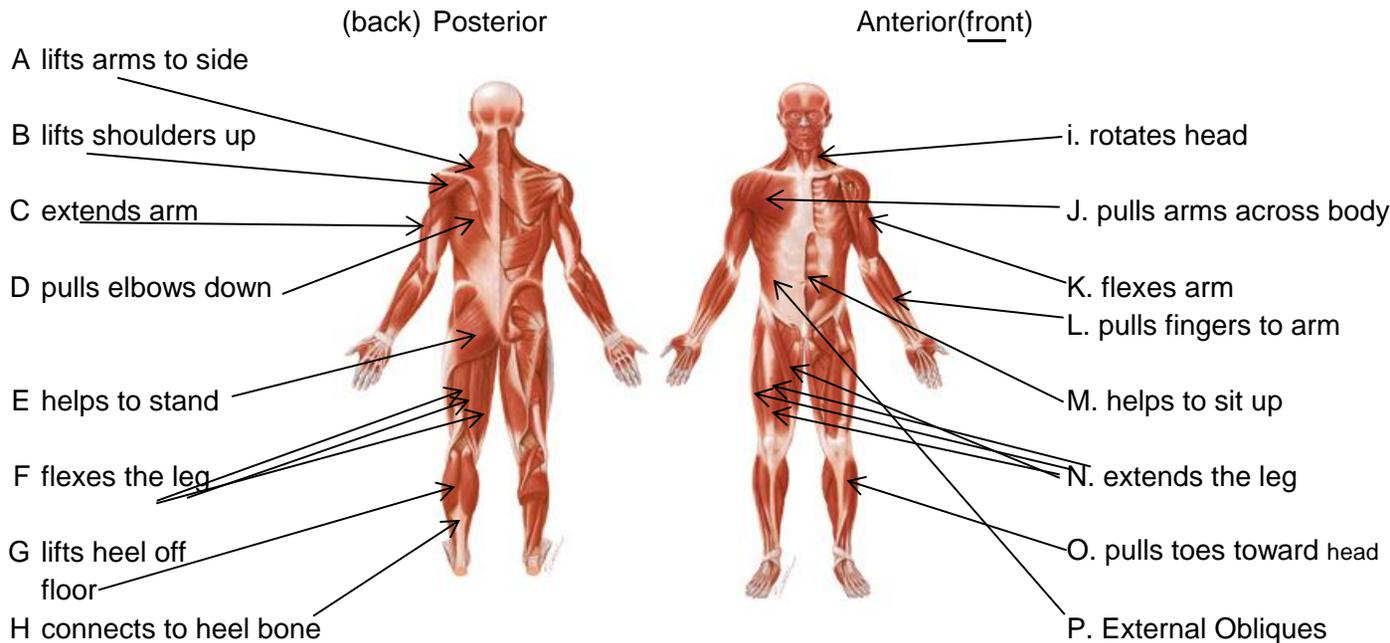
4. Flexion - \_\_\_\_\_

**Identify the muscles.**

**Posterior Side (Back of the body.)**

- Achilles Tendon - Tendon that attaches your gastrocnemius to the heel bone.
- Gluteus Maximus - Raises the torso from a sitting position
- Trapezius - Raises the head and shoulders. Helps to lower the shoulders.
- Triceps - Straightens the lower arm

- Hamstrings - Flexes the lower leg
- Deltoids - Raises the humerus out to the side (airplane)
- Gastrocnemius - Extends the bottom of the foot toward the floor
- Latissimus Dorsi - Lowers the elbows



**Anterior Side (Front of the body.)**

- Sternomastoid - Rotates the head
- Biceps - Flexes the lower arm
- Abdominals - Flexes the torso
- Quadriceps - Extends and raises the leg
- Pectoralis Major - Moves the arm across the body
- External Obliques - Assists in breathing-sideward flexion-rotation of the torso
- Anterior Tibialis - Flexes the top of the foot toward the head







