

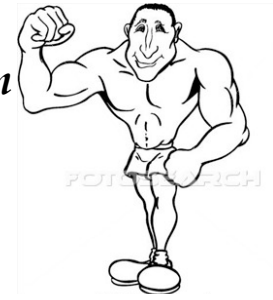
NAME _____

Partner _____

Per. _____

Lift or
Leave!

Muscle Action -The Weight Room Investigation



PURPOSE: To examine skeletal muscle and joint movement through the use of weight training equipment.

MATERIALS: Weight Room
Text- Chapters 9, 10 & 11

PROCEDURE:

1. In groups of three go around to the 14 different exercise stations and determine which muscles and joints are being worked while filling in the results section. ***You and your partners are required to perform at least 1 set of 15 repetitions per station. Add as much resistance as possible so that you develop muscle tension!** Your partners are there to “spot you” as you rotate through each station.
2. Complete the results section and questions with the help of your textbook. See Chapter 9, and TABLES 9.3 and 9.4 for help with the articulation column.

RESULTS: see data table.

QUESTIONS: Please respond in complete sentences for FULL CREDIT.

1. What type of muscle contraction is used during the lab? *Isometric or Isotonic.*

2. What is the difference between isometric and isotonic contraction?

Give an example of an exercise that demonstrates each. Be specific.

3. What type of muscle fiber is predominately being used throughout the weight room stations? *Slow oxidative, fast oxidative, or fast glycolytic?*

Support your response. (Perhaps chapter 10 is helpful here?)

4. List 3 benefits of weight training. (Perhaps chapter 10 is helpful here?)

RESULTS: For each of the 14 exercise stations fill in the corresponding columns. Indicate the movement of the joint, i.e., *flexion, extension, hyperextension, adduction, abduction, lateral flexion, circumduction, lateral or medial rotation, plantarflexion* and *dorsiflexion*. For exercises where substitutions are available, circle which method you used in the parenthesis.

EXERCISE PERFORMED	MUSCLE(S) WORKING	ARTICULATION (specific joint(s) name or bones)	JOINT MOVEMENT
1. BICEP CURL			
2. ARM EXTENSION			
3. MILITARY PRESS *** (barbell/dumbbell)			
4. BENCH PRESS*** (barbell/dumbbell)			
5. LAT PULL-DOWN			
6. BUTTERFLY*** (standing/using bench)			
7. CALF RAISES			
8. HIP ABDUCTOR			
9. HIP ADDUCTOR			
10. SIT-UPS			
11. SIDE CRUNCH*** (stabilityball/laterals)			
12. NECK EXTENSION			
13.WEIGHTED SQUAT *** (barbell/goblet squat)			
14. ALPHABET BANDS			

*** indicates there is an alternate exercise available