

## 7<sup>th</sup> Grade Weight Training Information



### **INTRODUCTION**

Weight training is an exercise that utilizes resistive movements, typically with free weights or exercise machines. It is typically used to gain strength, hypertrophy or endurance. Weight training has become popular for several reasons: for the sport, to enhance performance in other sports such as football or track and field, or as a means of exercise. Weight training programs will produce benefits such as increased strength, increased muscle size, an increase in fat-free mass, and decreased stress levels.

### **VOCABULARY TERMS**

- ❑ **Concentric Muscle Action**- when the muscle shortens because the contractile (human) force is greater than the resistive (weight) force
- ❑ **Eccentric Muscle Action**- when the muscle lengthens because the contractile (human) force is less than the resistive (weight) force
- ❑ **Muscular Strength**- the ability of a muscle to exert a high force while contracting at a high rate of speed
- ❑ **Hypertrophy**- the muscular enlargement that results from weight training
- ❑ **Muscular Endurance**- ability of a muscle to continue to perform without fatigue
- ❑ **Spotter**- someone who assists in the execution of an exercise to help protect the athlete from injury
- ❑ **Rest Period**- time dedicated to recovery between sets or exercises
- ❑ **Frequency**- refers to the number of training sessions conducted per day or per week
- ❑ **Intensity**- effort expended during a training session
- ❑ **Time**- refers to the length of time a training session is conducted
- ❑ **Repetitions**- number of times an exercise is repeated without stopping
- ❑ **Set**- a specific number of repetitions

## **TRAINING CONCEPTS**

### **For Strength Gains (power)**

- Heavy Weight
- Few Repetitions (1 to 5)
- Long Recovery Period (2-5 minutes between sets or exercises)

### **For Hypertrophy (muscle size)**

- Moderate Weight
- Medium Volume of Repetitions (6 to 10)
- Moderate Recovery Period (30 seconds to 2 minutes between sets or exercises)

### **For Muscular Endurance Gains**

- Light Weight
- High Volume of Repetitions (12 or more)
- Short Recovery Period (30 seconds between sets or exercises)

## **MUSCLES-MACHINES**

Listed below are several exercises/machines that can be found in a weight room. Next to each exercise there is a name of the muscle group(s) that is being used while performing the exercise.

<u>Exercise/Machine</u>	<u>Muscle Group(s)</u>
Chest Press .....	Pectoralis Minor/Major
Leg Extensions .....	Quadriceps
Leg Curls .....	Hamstrings
Pull Ups .....	Latissimus Dorsi
Box Jumps .....	Gastrocnemius
Arm Curls .....	Biceps
Sit Ups .....	Abdominals
Shrugs .....	Trapezius
Shoulder Press .....	Deltoids
Squats .....	Glutes
Dumbbell Lunges .....	Quadriceps, Hamstrings, Glutes
Triceps Extensions .....	Triceps
Pectoralis Flys .....	Pectoralis Major
Back Extensions .....	Erector Spinae

## **CARDIO INFORMATION**

### **Maximum Heart Rate Formula**

220 – your age = max heart rate

Ex. A 20 year old person's max heart rate  $220 - 20 = 200$  beats per minute

### **Target Heart Rate**

Should be 60% to 80% of max heart rate, Should achieve this heart rate 3 to 5 times per week for 30 minutes.