

Weight Room Basics



- **SAFETY** – for you and the equipment. Ensure safety, use equipment properly and report any evidence of equipment malfunction or damage immediately to the teacher.
- Don't hang out, waiting for a machine...there are plenty of opportunities for ALL to be active. If machines are all taken, with the possibilities of dumbbell exercises, curl-up options, push-ups, planks, wall-sits, pull-ups... there is always an exercise that can be performed.
- Free weights are not to be used unless or until permission given.
- If on a cardio machine, remain on consecutively for a minimum of 10 minutes
- Adjust weight machines to fit body size; all yellow knobs indicate a point of adjustment for the machine.
- When using weight machines be certain that the weight pins are secured before beginning repetitions
- When using weighty machines, lower the weight stack slowly down to its original position upon completion of repetition, do not bang weights
- At the end of class be sure to put equipment away appropriately and clean machines with disinfectant.

Lifting tips

1. **Always warm up** before you start lifting weights. This helps prevent injury.
2. **Lift and lower your weights slowly.** Don't use momentum, don't swing anything other than the appendage you're working and, be careful not to use too much weight.
3. Lift/positive phase in a 2 count, Down/negative phase in a 4 count
4. Perform the exercise through the **full range of motion**
5. **Breathe** – exhale on lift/positive phase, inhale on down/negative phase
6. Maintain good **posture**, keep everything nice and tight

Methods of Developing Muscular Fitness:

There are three types of exercises to provide resistance to make the muscles work harder to develop muscular fitness. These are:

- **ISOMETRIC** – resistance exercises that contract the muscle but do not change the length of the muscle. Strength will be developed but only at the angle in which the exercise is performed.
- **ISOTONIC** – resistance exercises in which the muscle lengthens and shortens through the full range of motion. Because you are working through the full range of motion, the amount of weight lifted is one that can be lifted at the weakest position. Example: In doing a bicep curl, at the 90° angle a person is able to lift 80 lbs. and at the 160° angle only 40 lbs. can be lifted. Therefore, the person will only be lifting 40 lbs not overloading the strongest joint position. Despite this, isotonic exercises are excellent muscular fitness developers.
 - **Concentric (Positive) Contractions:** Put simply, this contraction **shortens** your muscle as it acts against resistive force (like a weight).

- **Eccentric (Negative) Contractions:** During these contractions, the muscles **lengthen** while producing force—usually by returning from a shortened (concentric) position to a resting position.
- **ISOKINETIC** – are used with specially designed machines – a cable moves over an irregularly shaped cam allowing the resistance to change throughout the range of motion. The advantage to this is that maximum resistance is provided at the stronger angles while less resistance is provided at the weaker angles.

Vocabulary

Dumbbell: A short bar with weights at each end that can be held with one hand. Often dumbbell exercises are completed in pairs, lifting a weight in each hand.

Free weights: Hand weights that are often used for weightlifting exercises. Dumbbells and barbells are considered free weights. Because free weights are not constrained by the motion of a weightlifting machine, they allow for more natural movement that is more likely to be similar to real life.

Range of motion: The measurement of movement around a specific joint or body part.

Reps: Short for repetitions, which involves the repeated movement of one complete exercise

Resistance training: A form of training in which each effort is performed against a specific opposing force. Methods of resistance training include using your own body weight, elastic fitness bands, free weights, or water

Sets: A collection of repetitions of a specific movement, such as an arm curl or a squat. For example, a set may have anywhere from three to 15 repetitions

Spotter/Spotting: the act of supporting another person during a particular exercise, with an emphasis on allowing the participant to lift or push more than they could normally do safely.

Stability/Exercise ball: An oversize rubber ball that is used for a variety of exercises. The stability ball (or the Swiss ball) is particularly effective for core-strengthening and conditioning exercises. Balls come in a variety of sizes.

Strength training: The use of resistance training in order to improve your overall strength and health

Weight-bearing exercise: Exercise that involves your bones and muscles working against the force of gravity, and your feet and legs carrying all of your weight. Examples of this kind of exercise include walking, running, jogging and dancing

PE Weight Room Work Out Expectations:

❖ Muscular Strength/Endurance Workout-

- Minimum of 10 different exercises a set of 12 at each or as per established goal.
- Choose a challenging weight, one that you have to work hard to lift for 12 reps.
- Record set, weight/resistance, reps
- Following a set a 10 different exercises you may move on to complete a second set or continue with additional exercises.
- Keep in mind the following:

- Breathe – exhale on lift/positive phase, inhale on down/negative phase
- Lift/positive phase in a 2 count, Down/negative phase in a 4 count
- Complete exercise through the full range of motion

❖ **Cardio and Muscular Strength/Endurance Workout -**

- Minimum of 10 continuous minutes on a cardio machine
 - Work at a minimum intensity/pace level of 7 on elliptical and bikes, 4 on treadmill
 - Goal: work within your Target Heart Rate Zone
 - Record time, intensity, calories and distance
- Minimum of 6 different exercises a set of 12 at each.
 - Record set, weight/resistance, reps

❖ **Cardio Workout -**

- Work at a minimum intensity/pace level of 7 on elliptical and bikes, 4 on treadmill.
- Goal: work within your Target Heart Rate Zone.
- Record time, intensity, calories and distance

Specific goals of the day may be set. Example: Burn a certain number of calories; cover a certain amount of distance...