**Vocabulary Words**

**1. Cardiovascular fitness:** (also known as cardiorespiratory fitness) is the ability of the heart, lungs and vascular system to deliver oxygen-rich blood to working muscles during sustained physical activity. Aerobic exercise improves cardiovascular fitness.

**2.** **Muscular strength**: is the amount of force a muscle or muscle group can exert against a heavy resistance. Anaerobic exercise improves muscular strength.

**3.Muscular endurance:** is the ability of a muscle or muscle group to repeat a movement many times or to hold a particular position for an extended period of time. Both aerobic exercise and anaerobic exercise can improve muscular endurance.

**4. Flexibility:** is the degree to which an individual muscle will lengthen. Stretching improves flexibility.

**5.Body composition:** is the amount of fat in the body compared to the amount of lean mass (muscle, bones, organs etc.).

**6. Agility:** The ability to rapidly and accurately change the direction of the whole body in space.

**7.** **Speed:** The amount of time it takes the body to perform specific tasks.

**8.** **Power:** The amount of force a muscle can exert.

**9.** **Balance:** The ability to maintain equilibrium while stationary or moving.  **Coordination:** The ability to use the senses and body parts in order to perform motor tasks smoothly and accurately.

**10. Reaction Time:** The ability to respond quickly to stimuli.

**11. F.i.t.t. Principle:** Aset of guidelines to set up a workout routine. (Frequency, Intensity, Time, Type-Mode)

**12. Frequency:** How often you exercise.

**13.** **Intensity:** How hard you work during exercise.

**14.** **Duration: (Time)** How long you exercise.

**15. Mode: (Type)** The type of activity you're doing.

**16.** **Progression**: starting slowly and gradually getting increasing the amount of exercise you do.

**17. Overload:** making a muscle work beyond its comfortable point of exertion. When you overload your muscles, they are forced to become stronger so as to cope with the increased load.

**18. Specificity:** best way to develop physical fitness for your sport is to train the energy systems and muscles as closely as possible to the way they are used in your sport.

**19. Adaptation:** is the way the body programs muscles to remember particular activities, movements or skills.

**20. Overtraining:** Exercising to the extreme in intensity, frequency and/or duration.

**21. Aerobic** – means with air or oxygen, or, as it applies to your workouts, when you exercise at an intensity that allows the cardiovascular system to supply the muscles with sufficient oxygen. This means exercising continuously (such as walking, running or cycling) and elevating your heart rate between 70 to 80 percent of your Maximum Heart rate

**22.** **Anaerobic** - means without oxygen. Anaerobic exercise means you're working at such a high level of intensity, that the cardiovascular system can't deliver oxygen to the muscles fast enough. Because muscles need oxygen to continue exercising, anaerobic exercises only last for short periods of time.

**23.** **Interval Training** - alternating high intensity exercise with recovery periods

**24. Circuit Training -** Training technique that involves moving from one exercise to another, each exercise working a different muscle group until each muscle has been worked. It can include strength training stations, cardio stations or a mixture of the two. The purpose is to keep the heart rate elevated.

**25. Recovery** – Resting after exercise to allow for tissue repair and to build muscle. ( cool down, replace fluids, eat properly, stretch, ice bath, massage

**26. FLEXION -**bending of a limb at a joint: decreasing the angle of the joint

**27. Extension** -refers to a movement at a joint in the body in which the bones on either side move further apart, thus increasing the joint angle. An example of this would be straightening the elbow during the lowering phase of a biceps curl.

**28. ABDUCTION** - to draw away from or deviate from the midline of the body; opposite of adduction; side movement away from the midline of the body; example a side leg raise moving the leg away from the body's center.

**29. ADDUCTION**  - to bring toward the midline of the body;

**30. Hyperextension** - is an excessive joint movement in which the angle formed by the bones of that joint is opened, or straightened, beyond its normal, healthy range of motion.

**31. Pronation** - To turn or rotate (the hand or forearm) so that the palm faces down or back **or** To turn or rotate (the foot) by abduction and eversion so that the inner edge of the sole bears the body's weight.

**32. Supination -** To turn or rotate (the hand or forearm) so that the palm faces up or forward.

 orto turn or rotate (the foot) by adduction and inversion so that the outer edge of the sole bears the body's weight.

**33. Internal Rotation** - or **medial rotation**) of the shoulder or hip would point the toes or the flexed forearm inwards (towards the midline).

**34. External Rotation -** (or **lateral rotation**) is the opposite of Internal Rotation. It would turn the toes or the flexed forearm outwards (away from the midline).

**35. Circumduction** - The circular movement of a body part, such as a ball-and-socket joint. It consists of a combination of flexion, extension, adduction, and abduction. "Windmilling" the arms or rotating the hand from the wrist are examples of circumductive movement

**36. Static Stretching -** stretch and hold the muscle just beyond its normal range of motion. Each stretch is ideally held for 15 to 30 seconds

**37. Dynamic Stretching -** comprises controlled movements involving leg and arm swings that slowly bring the muscles close to their range of motion limit without exceeding it. This type of stretching is ideal before sporting events, weight-bearing exercise sessions that involve the whole body, or training involving quick changes of direction.

**38. Ballistic Stretching -** It involves uncontrolled bouncing motion that stretches the muscles far beyond their normal range of motion. An example of ballistic stretching would be sitting with your feet extended and reaching for your toes repeatedly, trying to extend farther with each bounce.

**39. PNF Stretching -** abbreviation for proprioceptive neuromuscular facilitation A technique for increasing flexibility which combines muscle tension with passive stretching. Also sometimes called isometric stretching

**40. Myofascial Release -** specialized massage technique employed to treat a variety of chronic disorders in which the muscle tissue is stretched and manipulated to relieve tension in the fascia, the thin tissue covering the muscle fibers.

**41. isometric –** static strength training, involve muscular actions in which the length of the muscle does not change and there is no visible movement at the joint

**42. Isokinetic –** an exercise that provides a variable resistance to a constant limb movement. These kinds of adaptive exercises require equipment that can quickly accommodate changes in resistance. Stationary bike

**43. Isotonic –** tension remains unchanged and the muscle's length changes. Lifting an object at a constant speed is an example of isotonic contractions. Bicep Curl

**44. Eccentric -**  lowering phase of an isotonic contraction—also called negative curls. An example would be the lowering phase of a bicep curl. (weight going towards the floor)

**45. Concentric -** the muscle shortens as it contracts, as in the upward motion of a bicep curl(weight goes away from floor)

**46. Protein –** One of the body's nutrients that build and repairs tissues. 4 calories = 1 gram of protein

**47. Carbohydrate –** Carbohydrates are one of the main types of nutrients. They are the most important source of energy for your body. There are different categories of carbs including sugars, starches and fiber. 4 calories = 1 gram of Carbohydrates

**48. Saturated Fat –** source of fuel for the body, aid in absorption of fat soluble vitamins. Fats which are solid at room temperature (butter, lard, coconut oil, cocoa butter) have a higher percentage of saturated fat. An excess of these fats in the diet is thought to raise the cholesterol level in the bloodstream. 9 calories = 1 gram of Fat

**49. Unsaturated Fat –** A fat derived from plant and some animal sources, especially fish, that is liquid at room temperature. Intake of foods containing more unsaturated fats than saturated fats may contribute to reduced blood cholesterol levels.

**50. Calorie -** a unit of heat used to express the energy value of food. (measure of energy expenditure) 3500 calories = 1 pound of fat

**51. Repetition –** refers to one completed movement

**52. Set –** Refers to the number of reps performed steadily and continuously without a break. An example is “three sets of 15 reps” equals to 45 exercise movements

**53. Load –** the amount of weight lifted

**54. Barbell –** These are weights attached to a long bar which requires both hands to pick up

**55. Dumbell -** These are weights attached to a short bar that can be held in one hand

**56. Resting Heart Rate –** refers to the number of times your heart beats in one minute while at rest. The average RHR is 70-80 beats per minute (BPM), though athletes may have resting heart rates as low as 40-50 BPM

**57.** **Target Heart Rate -** An estimated range of how fast your heart should beat during exercise for a safe and effective workout. Your target heart rate zone is generally stated a percentage of your maximum Heart rate

**58. Maximum heart rate –** the fastest rate at which your heart will be in one minute

**59. VO2 max –** the maximum or optimum rate at which the heart, lungs, and muscles can effectively use oxygen during exercise, used as a way of measuring a person’s individual aerobic capacity.

**60. Lactic Acid –** A waste product of anaerobic energy production which is known to cause muscle burn during exercise

**61. BMR -** The rate at which the body burns calories while awake but at rest (usually measured in calories per day).

**62. Metabolism -** refers to a complex series of chemical processes that convert food into energy as well as establishing the rate at which your body burns calories. Ultimately, your metabolism is responsible for how quickly or easily you gain and lose weight.

**63. Post Exercise Energy Expenditure -** Amount of energy expended or calories above resting levels following exercise. Most exercise will elicit some type of after burn, but more intense exercise such as interval training or intense strength training will burn more calories to bring the body back into balance.

**64. Glucose –** simple sugar. One of the main source of energy for the body.

**65. Glycolysis –** breaking down Glucose inside cells to produce energy

**66. Fast Twitch Muscle Fiber –** these fibers contract more quickly, and as a result produce more power and strength. They are activated during short burst of speed and strength as in sprinting or bodybuilding.

**67. Slow Twitch Muscle Fiber –** these fibers contract slowly and they can contract for longer period of time. “ Endurance Muscles”. They are great for endurance activities like running, cycling and swimming.

**68. Agonist Muscle -** A muscle that causes the prime movement of a joint.( the muscle contracts) For example, in the bicep curl, the biceps are the agonist.

**69. Antagonist Muscle -** Muscle that counteracts the agonist, lengthening when the agonist muscle contracts. The triceps are the antagonist when a bicep curl is being performed.

**70. D.O.M.S – (**Delayed Onset Muscle Soreness) Condition that is often felt after exercise, especially weight orientated, or excessive running.Caused by the micro tears within your muscles as part of the body rebuilding phase.Will generally last 24 / 72 hours.

**71. Tabata Wortout–** short intense workout, usually 4 minutes long, 8 sets – 20 seconds work – 10 seconds rest

**72. Pryamid Workout -** method of strength training in which you start with a lighter weight for a higher number of repetitions and, for each set, you increase the weight and decrease the repetitions. You can also do the reverse and start heavy, dropping the weight and increasing the reps for each set.

**73. Supersets -** training method in which you do two exercises, one after the other, with no rest in between. The exercises can be for the same muscle group or two different muscle groups, depending on your goals. They can even be completely different activities (e.g., a strength exercise followed by a cardio exercise).

**74. Burnout Training -** Burn-out sets can be structured numerous ways. Perform a set of 10 reps, choosing a weight that is at the heavy. Set the weight down, grab the next lighter weight available, and shoot for another 10 reps. Continue this pattern, decreasing the amount of weight lifted each set, until even the lightest weight feels as if it weighs a ton, and you are completely fatigued.

**75. Cross Fit -** A mix of anaerobic and aerobic exercises, body weight exercise, gymnastics and Olympic weight lifting.A CrossFit routine is constantly varied, high intensity, and functional movement. Workouts last around 30 minutes or less.