Brookfield East Physical Education:
Fundamentals of Fitness

Health / Skill Component:
The Fitness Unit will enhance body awareness, balance, focus, inner strength and self centered accomplishments that will energize the individual and will improve their fitness level. The specific HEALTH RELATED components of FITNESS that are addressed include: flexibility, agility and muscle endurance. A health related component that will be emphasized is: CARDIOVASCULAR FITNESS. Fitness will improve the ability of the heart, blood vessels, blood, and respiratory system to supply fuel, especially oxygen, to the muscles to allow sustained activity. Fitness activities improve all functions of the body and increases longevity.

F.I.T. Principle
(frequency, intensity, time)

Frequency: How often training occurs.
Intensity: How hard training occurs.
Time: How long training occurs.

Skill Related Components of Fitness

Definition: Skill-related fitness consists of those components of physical fitness that have a relationship with enhanced performance in sports and motor skills. These skills are:

Agility: relates to the ability to rapidly change the position of the entire body in space with speed and accuracy.
Balance: relates to the maintenance of equilibrium while stationary or moving.
Coordination: relates to the ability to use the senses, such as sight and hearing, together with body parts in performing motor tasks smoothly and accurately.
Speed: relates to the ability to perform a movement within a short period of time.
Power: relates to the ability to the rate at which one can perform work.
Reaction Time: relates to the time elapsed between stimulation and the beginning of the reaction to it.

Health Related Components of Fitness

Definition: Health-related physical fitness consists of those components of physical fitness that have a relationship with good health. These components are:

Body Composition: relates to the relative amounts of muscle, fat, bone and other parts of the body.
Flexibility: relates to the range of motion available at a joint.
Cardiovascular Endurance: relates to ability of the circulatory and respiratory systems to supply oxygen during sustained physical activity.
Muscular Strength: relates to the ability of the muscle to exert force.
Muscular Endurance: relates to the muscle’s ability to continue to perform without fatigue.

Principles of Training

Progression: Systematically increasing the stress to your body during exercise.
Overload: Going above and beyond what your body can perform –going to failure.
Specificity: Strengthening specific muscles to improve performance in an activity.
Target Heart Rate = Rate at which your cardiovascular system receives the most benefits from exercise without working too hard. The formula is 220-your age, times 60 to 80%.

BMI:
1. Multiply your height in inches by your height in inches.
2. Divide your weight (pounds) by the number from step1.
3. Multiply the number from step 2 by 703.

16-23 are appropriate BMI numbers that are considered normal standards. There are exceptions to the rule. This is a guideline for us to follow to avoid overweight or obesity issues. People with BMI rates over 30 are considered obese and are at a greater health risk for high blood pressure, high cholesterol and diabetes.

Hormone differences between men (testosterone/progesterone) and women (estrogen) prevent women from developing “mounds” of muscle mass. Women strengthen and tone without building bulk unless hormone supplements or steroids are used.

Diet: should be balanced including all of the food groups in moderation. No more than 30% fat is recommended to maintain a healthy heart, blood flow, controlling calorie intake to maintain a healthy weight for your body size.
Calorie: 3500 calories = one pound.
Safe Weight loss per week is 1-2 lbs.
1# of muscle is smaller and more dense than a lb of fat.

Metabolism- the chemical process by which the body breaks down food to release energy.

Cardiovascular Intensity Workouts include: Jump Roping, Speed Walking, Jogging, Aerobic/Jazzercise Activities, Circuit training, Kick Boxing and use of the Step Boxes.

Resistance Training/Anaerobic- use of weights or bands to strengthen or tone the muscle without aerobic expenditure. The activity is intense and lasts for a short time.

Isometrics: Exercise in which muscles contract but very little body movement takes place (i.e. Place your palms together and push them against each other; stretch legs by leaning against a wall with your hands, legs extended back)