

## PHYSICAL EDUCATION CONTENT STANDARDS AND EXPECTATIONS:

- 1.0 Exercise Physiology – Students will explain how regular, moderate to vigorous physical activity contributes to personal health and enhances cognitive and physical performance on a variety of academic, recreational, and life tasks.

### *EXPECTATIONS FOR STANDARD 1.0:*

F.I.T.T. Principle - Students will apply the principles of overload, specificity and progression to the concepts of frequency, intensity, time (duration), and type of exercise (F.I.T.T.).

System Responses - Students will apply the principles of overload, specificity, and progression to explain/demonstrate how skeletal, muscular, cardio-respiratory and neurological systems respond in a regular, moderate to vigorous program.

Fitness Components - Students will apply the principles of exercise physiology to the fitness components of cardio-respiratory function, flexibility, muscular strength and endurance, and energy sources and expenditures through a regular, moderate to vigorous exercise program.

Exercise Benefits - Students will apply the principles of exercise physiology to explain that the benefits of regular moderate to vigorous exercise impacts health, performance and cognitive/academic functioning in a variety of life, occupational and recreational activities.

Environmental Constraints – Students will explain that regular, moderate to vigorous exercise is constrained by environmental factors (i.e., heat, air quality, altitude, personal safety, etc.).

Development of Personal Fitness Program - Students will purposefully control exercise physiology principles and concepts as part of a personalized program to meet individual goals and needs for an active, healthy lifestyle.

- 2.0 Biomechanics - Students will improve their movement effectiveness and safety by applying the principles of biomechanics to generate and control force.

### *EXPECTATIONS FOR STANDARD 2.0:*

Force Generation & Absorption - Students will apply the principles associated with force generation and force absorption to skill and fitness activities; projecting, receiving, and moving objects; and in minimizing injuries across the life span.

Magnitude & Timing - Students will use biomechanical principles to control the magnitude and timing of applied forces to change movement speed and range of motion.

Movement Effectiveness - Students will apply biomechanical principles to demonstrate that changes in the effectiveness of forces produced by the human body depend on the magnitude and point of application of forces, lengths of segments and implements, and the coordination of the involved body segments and implements.

Torque - Students will use biomechanical principles associated with torque to demonstrate that changes in the direction, amount, and location of force produce spinning motions of one's body.

Balance - Students will use biomechanical principles associated with static and dynamic balance to demonstrate safe and effective movement.

Effective, injury free performance - Students will control and optimize the effects of external forces acting on the body and objects; these forces include friction, air resistance (lift and drag), buoyancy, gravity, and reaction.

Applicability of specific force principles – Students will selectively apply specific force principles depending on the overall performance objective of the movement and on the specific phases of the movement under consideration.

3.0 Social-Psychological Principles – Students will demonstrate positive efficacy about themselves and the social skills necessary to work effectively with others essential to communication, caring, healthy decision making, and a sense of community for all individuals.

#### *EXPECTATIONS FOR STANDARD 3.0:*

Individual Ability - Students will identify abilities and limitations that facilitate or constrain their participation. They will examine their own participation in a variety of physical activities to test themselves, work purposefully to increase their skills, find success in challenging activities, and acknowledge when they have not yet mastered a skill or activity.

Respect and Appreciation for Others - Students will develop respect and appreciation for others during activities in which they learn to affiliate, strive for competence, and willingly include others in physical activity .

Competence - Students will develop competence through persistence, application of knowledge to performance, and mastery of skills.

Goal Setting - Students will develop the ability to set realistic goals that focus on personal improvement and are worthwhile and achievable. They will investigate a variety of goals to determine those which are (a) challenging and achievable with hard work, (b) consist of a series of short-term steps that form a natural progression, (c) are accompanied by specific strategies, (d) can be monitored and assessed periodically to determine progress and success, and (e) can be revised for further growth.

Expressing Empathy - Students will strive to understand others and develop the ability to demonstrate empathy toward another's situation. They will acquire a positive efficacy about themselves and social skills necessary to work effectively with others essential to communication, caring, healthy decision making, and a sense of community for all individuals.

Self-Control - Students will participate in a variety of individual and group tasks to increase their ability to control and modify their own thoughts, feelings, and emotions.

4.0 Motor Learning Principles - Students will explain and demonstrate how skills are learned and proficiency developed through frequent practice opportunities in which skills are repeatedly performed correctly in a variety of authentic situations.

#### *EXPECTATIONS FOR STANDARD 4.0:*

Developing Proficiency - Students will acquire discrete, serial, and continuous skills and progress through the stages of verbal/cognitive understanding, motor execution, and automation as they become more proficient performers.

Individual variation - Students will investigate the extent to which skill learning proficiency is dependent upon previous experience, innate attributes, quality instruction, and opportunity to learn.

Improvement - Students will understand that improvement in physical activities occurs as they grow physically and as they participate in frequent, correct practice.

Situation Complexity - Students will investigate the extent to which their performance improves as the nature of physical activities and practice situations becomes progressively more complex, variable, and unpredictable.

Appropriate Practice - Students will understand that appropriate, skill enhancing practice consists of five components: (a) frequent, correct repetitions; (b) authentic tasks that reflect the complexity of the real situation; (c) knowledge of the performance with or without knowledge of the results; (d) performance of the whole skill, followed by practice of parts or components of the skill or performance of parts of the skill, gradually adding more parts until the skill is performed in its entirety (whole); (e) practices that focus on developing a kinesthetic awareness or feeling of a correct performance.

5.0 Physical Activity - Students will participate in a regular, personalized, purposeful program of physical activity to gain health and cognitive/academic benefits. They will learn and utilize principles of exercise physiology and biomechanics to design a safe and effective program consist with their health, performance and fitness goals.

*EXPECTATIONS FOR STANDARD 5.0:*

Scientific principles - Students will apply and manipulate scientific principles to enhance or constrain performance.

Identification of personal goals - Students will acquire the ability to manage and self-regulate to enhance their ability to participate regularly in lifelong physical activity.

Monitoring - Students will investigate the effects of physical activity on body systems and acquire the ability to adjust levels and types of physical activity.

An effective physical activity program - Students will understand that a physical activity program is regular, personalized, purposeful, and consists of 30-60 min. each day of moderate to vigorous physical activity.

Principles of force - Students will understand that principles of force form the bases for effective performance and that manipulation of these factors can enhance or constrain performance.

Participation - Students will investigate the extent to which participation in correct, motivated practice in authentic situations facilitates skillfulness.

6.0 Skillfulness - Students will enhance their ability to perform a variety of skills and applications by developing fundamental movement skills, creating original skill combinations, combining skills effectively in skill themes, and applying skills to a variety of recreational and daily life experiences.

*EXPECTATIONS FOR STANDARD 6.0:*

Fundamental motor skills - Students will acquire the fundamental movement patterns (locomotor, non-locomotor and manipulative) that serve as the foundation for locomotion, balance and skillful movements.

Creative movements - Students will participate in a variety of open ended movement challenges using fundamental and original movements that engage their higher order thinking skills. They will investigate how these movements can be used to explore, discover, and create movement sequences that express the individuality of the mover.

Skill Themes - Students acquire both established and original combinations of movement skills and patterns that serve as building blocks for skillful performance.

Applications – Students will participate in a variety of activities that require skillfulness for successful performance.