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Secondary School Teacher's Guide

Physical Education

Curriculum Development Division

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Contents

Part 1: Introduction iv

Introduction 1

Subject Rationale 2

Framework for Physical Education Curriculum 4

Form 1 4

Form 2 7

Form 3 10

PART 2: *Teaching and Learning strategies* 14

Planning for Instruction 13

Steps for Planning Instruction 13

PART 3: *Assessment Strategies* 18

Part 4: Useful Resources 23

Bibliography 32

Webliography 32

Part 1: Introduction

Introduction

The Physical Education Teacher's Guide provides support for the Curriculum Guide since it is designed to help teachers better understand and implement the curriculum.

The guide gives practical ideas about ways of implementing the curriculum and includes suggestions about what to teach. The strategies suggested for facilitating teaching and learning provide teachers with ideas to motivate students to learn and make learning relevant, interesting and enjoyable. A variety of suggested assessment strategies present teachers with diverse ways to assess learning.

Teachers should relate learning Physical Education to real people, issues and the local environment. Teaching using meaningful contexts and ensuring students participate in appropriate practical activities assists students to gain knowledge and understanding and demonstrate skills in Physical Education.

Students learn better when they take part in their own learning through the physical activities. Through the practical activities, they learn to make meaning of theory.

Subject Rationale

Physical Education is an integral part of general education and belongs within the core curriculum for secondary education. Physical Education programmes provide opportunities for all students to be physically active and to develop appreciation for and enjoyment of movement.

Students are growing up in a world of rapid change which has led to more sedentary lifestyles. As a result, low levels of fitness, obesity and poor movement/skill development are all too common. The Physical Education curriculum therefore focuses on the health of individuals and the factors that influence their movement skills and physical activity levels.

Physical Education fosters the holistic development of students of varying abilities, capabilities and interests through a structured programme of psychomotor activities. This curriculum has been planned to develop social and scientific understandings about movement. Students who experience the curriculum will be given opportunities to learn about and practise ways of maintaining active, healthy lifestyles and improving their health status.

The curriculum includes the study of movement and physical activity. Emphasis is placed on understanding how the body moves and the socio-cultural influences that regulate movement. Scientific content to be studied includes anatomy, physiology, health and physical fitness and acquisition of the relevant skills. Students are also encouraged to be sensitive about gender issues and issues affecting the differently abled. This will impact on how movement and patterns of participation in physical activity are valued by students.

The Physical Education curriculum seeks to provide satisfying experiences for all students from Form 1 to Form 3. The curriculum offers stimulating and varied activities that are appropriate to students' age and ability. These can be set at levels that challenge all students including the differently-abled but will also give all students opportunities for achieving success.

The individual who has been exposed to this curriculum will have the knowledge, skills and attitudes necessary to incorporate physical activity into regular routines, leisure pursuits and career requirements throughout life. In addition, striving for an active, healthy lifestyle fosters

personal growth, the enhancement of well-being and the development of the individual's capacity to take a productive role in the society.

Framework for Physical Education Curriculum

Form 1		
Term 1	**Term 2**	**Term 3**
Defining Physical Education Brief History of Physical Education **Physical fitness and wellness** • The skeletal system • Meaning of wellness • Dimensions of wellness • Behaviours affecting wellness • Nutrition **Motor skill development** • Elements of movement – space awareness, body awareness, relationships, effort • Movement Skills – weight bearing, weight transference, flight, body shape	**Physical fitness and wellness** • The muscular system • Definition of fitness • Components of fitness • Factors affecting fitness **Motor skill development** • Meaning of gymnastics • Balances – crouch balance, headstand, handstand • Rolls – forward and backward • Foot work in netball – stopping, stepping, pivoting • Brief history of basketball • Passing – javelin, lob, two-handed passes • Catching	**Physical fitness and wellness** • Assessment of fitness levels **Motor skill development** • Cartwheel, round-off • Astride vault • Offensive and defensive skills in netball • Strategies in modified game situations • Dribbling in basketball – static and dynamic • Strategies in modified game situations • Basic dribbling in football • Rules relating to skills in passing and dribbling • Strategies in modified game situations

Form 1		
Term 1	**Term 2**	**Term 3**
Motor skill development • Brief history of netball • Passing– over arm, chest, bounce, underarm • Catching • Brief history of football • Passing, receiving, kicking • Brief history of cricket • Batting – forward defense, forward drive, pull to leg • Bowling – basic over arm bowling action • Brief history of track and field • Definition of track and field • Areas of track and field • General principles of walking, running, throwing, jumping	**Personal and social behaviour** • Sharing with others **Safety principles and practices** • Application of appropriate emergency responses • Definition of first aid • Components of a first aid kit See pages above for content	• Fielding in cricket – underarm throw, long barrier • Catching – close, high catching **Personal and social behaviour** • Respect for others **Safety principles and practices** • Type of injuries - soft tissue - hard tissue • Prevention of injuries See pages above for content

Form 1		
Term 1	**Term 2**	**Term 3**
• Basic techniques of sprinting • Starts, Relays, Jumps, Throws **Personal and social behaviour** • Procedures/rules • Instructions S**afety principles and practices** • Safety rules: equipment, environment, protective gear		

Form 2		
Term 1	**Term 2**	**Term 3**
Physical fitness and wellness • Fitness needs in major sports • Circulatory system • Nutritional principles • Weight management • Stress management **Motor skill development** • Weight bearing and weight transference using apparatus • Through vault • Shooting in netball • areas of the court • playing position • relating to skills	**Physical fitness and wellness** • Respiratory system • Cardio-respiratory endurance – energy system. The effects of cardio-respiratory endurance, cardio-respiratory endurance tests **Motor skill development** • Forward roll on the box • Batting backward defense and attack strokes in cricket, running between wickets • Basic bowling – direction, line and length • Fielding two hand collecting, overhand throw, skim catch, basic wicket-keeping • Dismissals, signals	**Physical fitness and wellness** • Nutritional principles **Motor skill development** • Offensive and defensive strategies • Passing the football • Goal Keeping
Footwork – pivot • Shooting – lay up	• Brief history and skills of volleyball • Passes Overhead/set,	**Motor skill development** • Shooting in basketball – set shot

Form 2		
Term 1	**Term 2**	**Term 3**
• Trapping in football • The throw-in • More advanced techniques of • Sprints • Starts • Baton pass • Jumps • throws	forearm/bump/dig • Service underarm, over arm serve • Javelin throw • Water safety rules • Dry rescue techniques • Basic swimming strokes • Diving	• History of hockey • Passing and receiving – push • Dribbling • Bowling in cricket – leg spin, off spin
Motor skill development • Discus throw **Personal and social behaviour** • Self-discipline/commitment - participation - commitment - cooperation	**Motor skill development** • Orienteering Skills • Hiking • Camping • Safety rules **Personal and social behaviour** • Communication skills - feedback - self-expression	**Personal and social behaviour** • Self Discipline • Respect - peers - group leader - teachers - individual differences

Form 2		
Term 1	**Term 2**	**Term 3**
Safety principles and practices • Safety practices in given activities • Safety implications of warm up and cool down • Protective gears	Acceptance of responsibilities/roles **Safety principles and practices** • Care of injuries • Procedure in the event of an injury • Methods of self-protection when o treating injuries • Treatment of basic injuries	

Form 3		
Term 1	**Term 2**	**Term 3**
• Game situation **Physical fitness and wellness** • Offensive and defensive skills in basketball • Officiating • Areas of court/playing areas • Game situation • Parts of the volleyball court • Scoring and rules of the game • Game situation • Goal keeping in hockey • Hurdling – basic technique **Personal and social behaviour** • Leadership skills • Conflict resolution • Goal setting • Environmental awareness	• History of badminton • Major skills – serve, striking: forehand, backhand, over arm **Motor skill development** • Orienteering • Types of maps – contour, rainfall, • Scale interpretation • Compass features • Choice of route • Breaststroke in swimming **Personal and social behaviour** • Appropriate behaviour **Safety principles and practices** • Strategies for emergency situations and long-term management of injuries	See page above for content

Form 3			
	Term 1	**Term 2**	**Term 3**
Year 3	Game situation **Physical fitness and wellness** Offensive and defensive skills in basketball Officiating Areas of court/playing areas Game situation Parts of the volleyball court Scoring and rules of the game Game situation Goal keeping in hockey Hurdling – basic technique **Personal and social behaviour** Leadership skills Conflict resolution Goal setting Environmental awareness	History of badminton Major skills – serve, striking: forehand, backhand, over arm **Motor skill development** Orienteering Types of maps – contour, rainfall, Scale interpretation Compass features Choice of route Breaststroke in swimming **Personal and social behaviour** Appropriate behaviour **Safety principles and practices** Strategies for emergency situations and long-term management of injuries	

PART 2: *Teaching and Learning strategies*

Planning for Instruction

The outcome of a developmentally and instructionally appropriate physical education program is to produce an individual who has the knowledge, skills and confidence to become and remain physically active for a lifetime.

Quality physical education is both developmentally and instructionally relevant for all children. Appropriate instructional practices in physical education are those that recognize children's development and changing movement abilities as well as their individual differences.

Appropriate instruction in physical education incorporates the best known practices derived from both research and teaching experiences into a pattern of instruction that maximizes opportunities for learning and success for all children. Teachers regularly assess student progress and adjust lessons and progressions accordingly.

Good planning is the first step to an effective classroom. When teachers know what they need to accomplish and how they are going to do it, they have a better opportunity to achieve success with the added benefit of less stress. Further, there is less opportunity to cause disruption when students are engaged for the entire class period.

Steps for Planning Instruction

a) Determine what concepts must be covered in the year.

b) Make sure to include any required test preparation material. Use this to create a plan for the course of study:

c) Create a personalized lesson plan calendar.

d) Plan the units using the overall plan of study and your calendar.

e) Create detailed unit/ lesson plans to include:

- Objectives
- Activities
- Time Estimates
- Required Materials
- Alternatives - plan for those students who might be absent during the activities.
- Assessment - includes class work, homework and tests.

f) Transfer the broad unit plans to a planning book to keep organized.

g) Write a daily lesson outline and agenda.

h) Create and/or gather any required items.

i) Make handouts, notes etc.

As most teachers realize, interruptions and unexpected events often occur in class. This might be unexpected assemblies to personal illnesses and emergencies. Therefore, plans should be created that will help you deal with these unexpected events.

Some Approaches to Teaching Physical Education

In Physical Education teaching styles refer to the general pattern created by using a set of strategies. Integral to teaching styles are the effects on the involvement of students in the learning process. While it is acknowledged that many teachers have their own individual styles of instruction, relying on personal preference is an unstable basis for effective teaching and that selection of a teaching style must be done on a more logical and scientific basis.

The most detailed analysis of teaching styles and behaviours in Physical Education came from work initiated by Mosston (1966) called the Spectrum of Teaching Styles which established a framework of possible options in the relation between teacher and student. The Spectrum provides a sound basis for analysis of one's teaching and the effectiveness of selected styles to meet particular learning intentions.

Spectrum of Teaching Styles relevant to the Curriculum

STYLE	OBJECTIVES	IMPLICATIONS
A - COMMAND	• teacher makes all decisions • teacher directed instructions re: start, pace, stop time etc. • learner responds to instructions • class is set up in an orderly manner • teacher circulates to give feedback • examples include dance, drills, etc.	• efficient use of time (time on task is high) • learning by recall and repeated performance • fixed standard of performance (based on model) • progress is rapid • no "thinking" on part of students other than memory
B-PRACTICE (TASK)	• learner performs tasks prescribed by teacher, but learner determines pace, rhythm, start, stop, interval • teacher circulates to give individual feedback • designed for individual practice, class is dispersed • examples include individual skills in volleyball, basketball	• learners held accountable for decisions • learners begin to experience independence • providing activity for students who finish task • time on task can be affected
C – RECIPROCAL	• class is organized in pairs or threes • observer gives feedback, doer performs the skill, feeder, if necessary, feeds object to doer • observer makes feedback decisions, rather than teacher • use of task cards or criteria sheets designed by teacher • teacher communicates only with observers	• greater socialization between students • students take more active role in learning process • constant presence of teacher not required • teacher trusts students to make decisions
D – SELF-CHECK	• learners assess themselves in comparison to criteria sheets established by teacher • examples include individual skills, target games, fitness results, etc. • teacher provides feedback at end of class	• students monitor themselves • self-check is private • students learn their own limits, successes, failures • more concerned with the results of a movement, not the movement itself
E – INCLUSION	• multiple levels of performance of the same task to allow for success of all learners (slanted rope) • accommodates individual skill differences • student chooses the level of performance based on perceived ability • self-assessment • teacher provides feedback regarding the decision-making process, not the chosen level • examples include gymnastics, basketball shooting (distance from basket), fitness	• students can take a step backward to experience success • inclusive, invites involvement • be aware of the gap between reality and aspiration • some students have difficulty choosing a particular level because they are conditioned to being told • often a positive style for students who get excluded from other activities

Spectrum of Teaching Styles

STYLE	OBJECTIVES	IMPLICATIONS
F – GUIDED DISCOVERY	• teacher guides students through a series of problems in which students make decisions to arrive at solutions • each step is based on the response to the previous step • teacher must wait for the learner's response and offer frequent feedback or clues (patience) • examples include center of gravity in gymnastics, levers, stability, strength, speed, the need for a variety of passes in basketball, etc.	• lots of preparation on part of teacher • teacher must be prepared to experiment with the "unknown" because responses may be unanticipated • minimal social contact with other students, but cognitive involvement is high • level of physical activity may be low
G- DIVERGENT	• learner is engaged in discovering a number of solutions to a problem • cooperative learning, each solution has value • teacher merely encourages responses, does not make judgments • examples include rolling the body, getting from one side of the gym to another using limited equipment, combining movements in gymnastics or dance, tactics in sport, game situations, etc.	• demanding for the teacher, must have expertise in the area • creativity of students • cooperation of students
H – INDIVIDUAL PROGRAM	• program developed by the learner based on physical and cognitive abilities • highly individualistic, not suited to all learners • learner designs the questions and the solutions • teacher observes, guides and provides individual conferences • enrichment activity	• prior experience in an activity is necessary for learners to engage in this style • time consuming – thinking, experimenting, performing, recording

Guidelines for Teaching

An effective teacher chooses a strategy to fit a particular situation. It is important to consider the learning goals for the specific situation and what the children already know and can do. By remaining flexible and observant, we can determine which strategy may be most effective. Often, if one strategy doesn't work, another will.

Acknowledge what children do or say. Let children know that you have noticed what they do by giving positive feedback, sometimes through comments, sometimes through just sitting nearby and observing.

Encourage persistence and effort rather than just praising and evaluating what the child has done.

Give specific feedback rather than general comments.

Model attitudes, ways of approaching problems and behavior toward others, showing children rather than just telling them

Demonstrate the correct way to do something. This usually involves a procedure that needs to be done in a certain way

Create or add challenges so that a task goes a bit beyond what the children can already do. To **reduce challenge**, you could simplify the task

Ask questions that provoke children's thinking.

Give assistance (such as a cue or hint) to help children work on the edge of their current competence

Provide information directly giving children facts, verbal labels and other information.

Give directions for children's action or behavior.

PART 3: *Assessment Strategies*

Assessment

The process of evaluation is the key to providing a framework that supports effective delivery and the attainment of goals in teaching. It incorporates procedures that include testing, measurement and assessment and facilitates accurate and recordable judgements of both student performance and programme effectiveness. The main purpose of assessment in Physical Education is to monitor student progress in order to provide feedback. Assessment also informs planning, teaching and reporting. This process is based on an underlying principle that all students can achieve a measure of success in Physical Education. It is essential then, that teachers should have a repertoire of assessment strategies that will not only enhance curriculum delivery but will also cause positive change and promote confidence in the programme.

Assessment in Physical Education has traditionally been based on performance tasks that readily accommodate the movement skill approach. The challenge, however, is to be able to vary the strategies so as to ensure assessment of the full range of students' abilities. Therefore, other methods such as portfolios, presentations or displays can also be used to better evaluate performances. These can be applied to practical activities as well as to areas that lend themselves to research tasks.

Sample of Assessment Strategies

Category	Strategies	Information on Strategies	Illustrative Example
Performance tasks	Simulation Demonstration Video production Presentation Project (individual and group)	Documentation of creativity, understanding, organizational and reasoning skills, handling of equipment, safety practices. Application and analysis of skills in new situations.	Student develops and participates as an individual, health-related fitness program with specific curriculum outcomes in mind; e.g., functional fitness, body image and well-being. A group develops a unique game, taking into consideration number of players, equipment, court size, name, whether students will be active enough to build cardio-respiratory endurance and then teach it to the rest of the class. Develop a week-long, health-related personal fitness plan and present it in chart form. Develop a 1-minute floor exercise routine and demonstrate it to the rest of the class
Observations	Anecdotal record Checklist Observing students	Immediate feedback of learning focused on specific outcomes; e.g., teamwork, leadership skills, communication, fair play	Teacher or peers observe student participation at a learning station where other students are demonstrating a variety of ball passing techniques. Observations are recorded and based on identified criteria. Teacher and students develop a checklist on components of fair play. Students are observed demonstrating fair play components throughout lessons over a period of time

Sample of Assessment Strategies

Category	Strategies	Information on Strategies	Illustrative Example
Oral communication	Interviews Questions/responses Peer teaching/ coaching Conferencing	Speaking and listening skills, ability to support/defend a position, information gathering, synthesizing concepts/methods.	Students observe partners while stretching, complete a checklist to evaluate each other's completion of appropriate stretches and adherence to safe practices and then discuss the findings with their partners.
Interest Inventory	Checklist Questionnaire	Interests, strengths, Learning preferences-for planning future programs.	Students can be given incomplete sentences or open ended opportunities to write and reflect, illustrate or explain or complete questionnaires. Interest inventory questions could include: -Did you gain an understanding of the physical education outcomes for this activity/unit? -How did you feel about your participation? -Did you enjoy working with your classmates? -What physical activities do you do away from school ?— with family, friends, self
Test	Multiple choice Completion Matching	Recall, recognition, content mastery. Continuous Assessment	Paper and pencil test for summative information at the end of a unit

Sample of Assessment Strategies

Category	Strategies	Information on Strategies	Illustrative Example
Written Language	Essay (extended and restricted response)	Writing and organizational skills, research skills and vocabulary.	Write a personal fitness plan, complete with goals, an action plan and method of monitoring progress. Name any similarities between football and hockey skills. How can these similarities help you to learn hockey if you already know how to play football? Explain the game of cricket when it was first invented. Tell about its evolution to the game it has become today.
Learning Logs	Reflective journal Dialogue journal Portfolio	Written record of the knowledge, skills and attitudes in relation to outcomes. Personal connections to active living concepts. Record of personal experiences. Goal setting. Shows progress over a period of time.	Student records personal active living schedule outside of physical education class; e.g., at home, fitness centre with family members or friends. How do you feel when you participate in a physical activity during physical education class? At home? Describe a situation where you encouraged another classmate while participating in a physical activity. How did you feel? What impact did it have on the other person or on other participants? Describe situations where you displayed the qualities of fair play and cooperation and situations where you may not have displayed these skills during class time. Describe how you felt in each of the situations. Journal entries could include "personal best" comments, such as: My strengths...My challenges... I feel good about …,My goals are …,My plan is …

Part 4: Useful Resources

Resources for teaching Physical Education

Access to appropriate curricular and material resources are expected to directly influence the proportion of Physical Education class time during which students engage in moderate to vigorous physical activity. Adequate facilities and equipment increase Physical Education opportunities and maximize levels of student activity during practical classes.

Open Educational Resources are freely accessible, openly licensed documents and media that are useful for teaching, learning and assessing as well as for research purposes. These include course materials, modules, textbooks, streaming videos, tests, software and any other tools, materials or techniques used to support access to knowledge.

Glossary

Absorption:
Interception of force or energy.

Acceleration:
The rate at which velocity changes with respect to time.

Aerobic:
The form of energy production in the body that requires the presence of oxygen; it is used for activities such as walking or jogging.

Aerobic Fitness:
The capacity to take in, transport and utilize oxygen while performing a fitness task. Also see cardio-respiratory endurance.

Agility:
The ability to change direction quickly while the body is in motion.

Anabolic Steroids:
Synthetic modifications of male hormone testosterone used to increase muscle mass and strength. These drugs were developed to maximize the anabolic effects and minimize the androgenic effects of testosterone. Anabolic steroids are not legal substances unless prescribed by a doctor for medical reasons.

Anaerobic:
A technical word which literally means without air, where "air" is generally used to mean oxygen, as opposed to aerobic. The oxygen-deprived form of energy production.

Anaerobic Exercise:
The cells of the body are not using oxygen during exercise. This form of exercise is found in activities such as weight-lifting or sprinting.

Autonomic Reflex:
A reflex which is unlearned, unpremeditated, involuntary and in which the pathways are built into the neural anatomy of each individual during development.

Balance:
The ability to control or stabilize your equilibrium while moving or staying still.

Ballistic Stretching:
Exercises that involve quick bouncing movements. Ballistic stretching movements usually do not involve holding the stretch for any period of time.

Blood Pressure:
The force by which blood is pushed against the walls of the arteries.

Body Alignment:
Body control using such skills as balance, coordination, spatial judgments, postural efficiency.

Body Composition:
The proportion of body fat to lean tissue in an individual, usually given as a percentage of body weight that is fat; or the ratio of fat (adipose) tissue to total body mass, expressed as a percent.

Buoyancy:
The upward force that fluids exert on all matter creating the ability or tendency to float.

Calorie:
The unit for measuring the energy produced by food when oxidized in the body.

Carbohydrate:
A biochemical compound composed of one or more simple sugars bonded together that are used as a source of energy for the body.

Cardio respiratory:
Relating to both the heart and the respiratory system.

Cardio respiratory Endurance:
The body's ability to take in and use oxygen so that muscles can function; its level is dependent on cardio-respiratory capacity and the ability of the cells in the body to efficiently use oxygen and release carbon dioxide. Also known as aerobic fitness.

Cardiovascular:
Of, relating to or involving the heart and blood vessels. The cardiovascular system includes arteries, veins, arterioles, venules, and capillaries.

Circulatory System:
The heart and the system of blood vessels in the body, including arteries, capillaries and veins.

Conditioning:
Engaging in regular physical activity or exercise that results in an improved state of physical fitness.

Cool-down:
A period of light activity following exercise that allows the body to return to near resting.

Coordination:
The ability to use your eyes and ears to determine and direct the smooth fluid movement of your body.

Dehydration:
Excess fluid loss from the body; symptoms include weakness and fatigue.

Directions:
Refers to movement concepts of forward, backward, sideways, right, left, up, down, clockwise and counter clockwise.

Dynamic Balance:
State of the body moving with constant speed and direction with zero acceleration.

Ectomorph:
A person that is characterized by long and thin muscles/limbs and low fat storage; usually referred to as slim.

Educational Gymnastics:
A natural progression of the exploration of fundamental movement skills. Five skills — rolling, transferring weight, balancing, climbing, and hanging and swinging — are developmentally appropriate for preschool and primary-grade children and can introduce them to the experiences characteristic of gymnastics.

Efficient Movement:
The skillful performance of tasks, which permits, desired results to be obtained with the least strain and a minimal expenditure of energy.

Effort:
This concept defines how the body moves. It consists of three components: *time* (faster or slower), *force* (harder or softer), and *flow* (bound or free).

Endomorph:
A stocky person: somebody whose body has a stocky build and a prominent abdomen.

Energy Balance:
The balance between calorie consumed in the diet and the amount of calories burned in daily physical activity.

Energy Cost:
The amount of calories required for you to perform different physical activities or exercises.

External Forces:
Forces outside of the system that change or alter movement. Examples are air resistance, gravity and contact with the ground or some other body.

Fitness:
Capability of the body of distributing inhaled oxygen to muscle tissue during increased physical effort.

Fitness Plan:
A plan developed after a self-assessment of the health related components of fitness. The plan should include the principles of overload, progression, specificity, regularity and individuality along with the FITT guidelines.

FITT:
FITT is an acronym for Frequency, Intensity, Time and Type which are four key ways that activity can be manipulated to create a desired outcome.

Flexibility:
The elasticity of muscles and connective tissues which determines the range of motion of the joints.

Force:
That which alters or tends to alter a body's state of rest or uniform motion in a straight line. The pushing or pulling effect that one body produces on another body.

Frequency:
In a personal fitness plan, how often you exercise.

Friction:
The force that resists relative motion between two objects in contact with one another.

Gravity:
The pull on all bodies in the earth's sphere toward the earth's center.

Health:
A state of well being that includes physical, mental, emotional, spiritual and social aspects.

Health-Related Fitness:
Physical fitness primarily associated with disease prevention and functional health. Five factors contribute to health related fitness: cardio respiratory fitness, body composition, flexibility, muscular strength and muscular endurance.

Heart Rate:
Heartbeats during specified time: the number of heartbeats occurring within a specified length of time
.

Individuality:
The training principle that takes into account that each person begins at a different level of fitness, each person has personal goals and objectives for physical activity and fitness and each person has different genetic potential for change.

Innate Abilities:
Abilities existing in, belonging to and present in an individual to perform a task.

Intensity:
How hard you work in a personal fitness prescription.

Lactic Acid:
A byproduct of anaerobic respiration that can cause discomfort by increasing the acidity in the body.

Lifetime Physical Activities:
Typically non-team activities that can be used throughout life for the purpose of improving or maintaining physical fitness.

Locomotor Skills:
Moving the total body to get from one place to another using a walk, run, hop jump, leap, skip, gallop or slide or some combination of these.

Manipulative Skills:
A skillful movement done to or with objects such as throwing a bean bag, striking or catching a ball.

Maximum Heart Rate:
The highest number of times the heart can beat per minute. Generally calculated by subtracting a person's age from 220.

Mesomorph:
A muscular person: a husky muscular body or somebody who has such a body.

Metabolic Rate:
The number of calories that is burned or expended as heat. The rate at which the body burns energy, translated into caloric expenditure.

Momentum:
The quantity of motion that a body possesses based on its mass and velocity.

Muscular Endurance:
The ability to contract your muscles repeatedly without excessive fatigue.

Muscular Strength:
The maximal force that you can exert when you contract your muscles.

Non-locomotor:
Movement in the space that the body or its parts can reach without traveling away from a starting location.

Nutrient:
A substance in foods that the body needs for proper growth, development, and functioning.

Nutrition:
The science concerned with the relation of organic nutrients, which come from food, to the physical well being of the organism.

Overload:
The principle that states to improve your level of physical fitness, you must increase the amount of activity or exercise that you normally do.

Overloading:
Increasing the work done by muscles to above normal levels, but below the loads that would cause injury or distress, to improve fitness.

Oxygen Debt:
When the oxygen demands of the muscles cannot be met during physical activity. A result of anaerobic activity.

Personal Fitness:
The result of a way of life that includes living and active lifestyle, maintaining good or better levels of physical fitness, consuming a healthy diet and practicing good health behaviors throughout life.

Physical Fitness:
A level of individual physical ability that allows a person to perform daily physical tasks effectively with enough energy reserves for recreational activities or unexpected physical challenges.

Physiology:
Study of the function of body systems such as the respiratory system and organs such as the heart and muscles.

Power:
The ability to move your body parts swiftly while at the same time applying the maximum force on your muscles.

Practice Plan:
A plan developed to improve locomotor, non-locomotor and fundamental movement skills. Plan should include progressions for skill development which move through the three stages of learning which include the cognitive, associative and automatic stages.

Progression:
A rate at which you change the frequency, intensity, and time of your personal fitness plan.

Proprioception:
A sense of perception at a sub-conscious level of the movements and positions of the body, independent of vision.

Reaction Time:
The ability to react or respond quickly to what you hear, see or feel.

Recovery time:
Time or rest between exercises.

Regularity:
Principle that states physical activity must be performed on a regular basis to be effective and that long periods of inactivity can lead to loss of the benefits achieved during the training period.

Re-hydrate:
The process of replacing fluids that have been lost or excreted from the body.

Skill-related Fitness:
The ability to perform successfully during games and sports; also called performance fitness. Skill related fitness has six components: agility, balance, coordination, power, speed and reaction time.

Specificity:
The training principle that states, improvement in personal fitness will occur in the particular muscles that are overloaded during physical activity or exercise. Also addressed by working on a certain component of fitness, such as flexibility exercises directly improve flexibility.

Sportsmanship:
Conduct and attitude considered as befitting participants in sports, especially fair play, courtesy, respect for one's opponent and graciousness in winning or losing.

Static Balance:
State of equilibrium, without movement. Stationary.

Wellness:
The attainment and maintenance of a moderate to high level of physical, mental, emotional, spiritual, and social health.

Bibliography

Nova Scotia. Department of Education and Culture. (1997). *Foundation for active, healthy living: Physical and health education curriculum*. Halifax, Nova Scotia; Author.

Pennsylvania Department of Education. (2002). *Academic standards for health, safety and physical education*. Harrisburgh, PA: Author.

Wyoming State Board of Education. (2003). *Wyoming physical education content and performance standards*. Cheyenne, WY: Author.

Zakrajsek, D., Carnes, L., & Pettigrew, F. E. (2003). *Quality lesson plans for secondary physical education* (2nd ed.). Champaign, IL: Human Kinetics Pub.

Webliography

- 712educators.about.com
- www.aph.org/**pe**/art_ellis
- www.education.gov.pg/Teachers/secondary/upper/teachers-guide-upper
- www.cdc.gov/healthyyouth/**pecat**/pdf/**pecat**-web.pdf
- www.spectrumof**teachingstyles**.org/
- users.rowan.edu/~conet/ElemPE/mosston
- www.everactive.org/.../Assessment/Assessment
- https://**education**.alberta.ca/media/848809/physedm.pdf
- Appropriate Instructional Practice Guidelines for ... - cahperd
- www.cahperd.org/cms-assets/.../5287-207931.elementaryapproprac.pdf
- Physical Education Resources, Class Management, and ... http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3196855/
- www.ncbi.nlm.nih.gov › NCBI › Literature › PubMed Central (PMC)