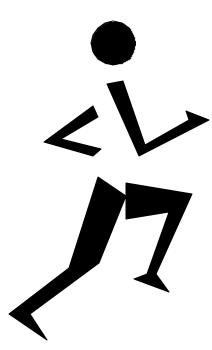
# Fitness Management



Physical Education/Health Education Fitness

### **Fitness Management**

### **Explanation of the GLO**

As daily living becomes more sedentary, it is essential that students demonstrate the ability to develop and follow a personal fitness plan for lifelong physical activity and well-being. Physical education/ health education must help each student develop a pattern of daily and/or regular participation in physical activities, and develop and maintain an understanding of how to acquire/maintain optimal personal health and fitness. The ultimate goals are for each student to value physical activity as a key component of health and to adopt a physically active lifestyle.

### **Explanation of the SLOs**

The specific student learning outcomes in this section identify what the student needs to know and be able to do, related to fitness development. Students will be able to identify what the health- and skill-related fitness components are, the benefits of physical fitness, and the underlying principles, physiology, and practices for fitness development. Students will be able to design and participate in a variety of warm-up/cool-down and fitness training-type activities to develop their own physical capacities. Wherever possible, learning experiences for the knowledge-related outcomes should emphasize physical activity participation and incorporate active learning strategies.

The skills component emphasizes the acquisition/application of fitness management skills and strategies for the development of physical activity habits and personal fitness. In this Framework, the fitness management skills and strategies are identified as active participation, heart-rate monitoring, and fitness assessment/analysis skills. As well, there is a connection with goal-setting/planning skills as addressed in General Learning Outcome 4 (*Personal and Social Management*). The overall emphasis of the specific student learning outcomes is on the management skills for developing personal fitness and preparing students for a lifetime

of physical activity. The emphasis is not on the achievement of fitness results or scores related to norm-referenced criteria. For example, the skills for developing upper body strength (e.g., goal-setting, active participation) are emphasized over the achievement of a specific standardized fitness score for push-ups.

Attitudes, values, and desire play significant roles in determining whether the student will choose to be physically active on a regular, and/or daily basis to develop personal fitness and well-being. Positive attitudes and responsible behaviours for active participation are essential components of the specific student learning outcomes. The student who shows an interest in and responsibility for personal fitness, appreciates the role and contribution of regular, daily participation, and understands personal limitations will be more likely to adopt daily physical activity habits for lifelong fitness and health. The attitude indicators serve to guide teaching, learning, assessment, and anecdotal reporting.

#### **Other Considerations**

The Framework supports the integration of specific student learning outcomes across the five general student learning outcomes. For example, goal-setting/planning, decision-making/problem-solving, interpersonal skills, and stress management skills in *Personal and Social Management* are to be applied in context with *Fitness Management*. Connections can also be made with the strands *Active Living* and *Nutrition* in *Healthy Lifestyle Practices*.

With increased technology and automation, physical activity is being eliminated in everyday living. Students should realize that physical inactivity is hazardous to their health, and that it is important to take responsibility for planning and managing their own physical activity and fitness. Teachers must aim at increasing activity during class time, enlisting the help of others who share this responsibility to promote physical activity at home and at school.

Students will understand that physical activity contributes to health and fitness benefits, and that the benefits are proportional to the frequency, intensity, time, and type of exercise. For example, the higher the frequency, more vigorous the activity, the longer the participation time, and the more challenging the activity, the greater the fitness benefit will be. The primary focus is to ensure that all students are active rather than inactive, develop positive feelings regarding physical activity participation, and have the knowledge and skills for developing optimal personal fitness.

Fitness testing is a component of programming related to the Framework, with emphasis on the goal of motivating students to be physically active and to develop fitness management skills. Students will learn to assess, and then to indicate their own position on a fitness development continuum, and determine appropriate activities to develop the health-related fitness components and skill-related fitness components. When fitness tests are administered, teachers must focus on the use of the fitness management skills, monitoring the student's progress, creating a positive testing environment, teaching safety precautions, encouraging self-testing, providing feedback, and reinforcing effort. The results of fitness tests should not form part of students' marks.

### **Learning Continuum**

#### **Early Years: Introductory Stage**

During Early Years (Kindergarten to Grade 4), simple fitness concepts are introduced, with the focus on participation in physical activity. Student learning outcomes related to fitness assessment and analysis of the health-related fitness components should not begin until Grade 4.

Assessment and analysis skills emphasize recording or logging how much time is spent participating in physical activity over a period(s) of time.

#### Middle Years: General Acquisition/Application Stage

During Middle Years (Grades 5 to 8), health-related fitness components are developed through participation in a variety of physical activities and/or specific fitness activities. Students experience and apply the fitness management skills and strategies to maintain/improve personal fitness. They will also show a general understanding of fitness knowledge to guide their level of participation and to make informed choices for personal fitness development.

#### Senior Years: Specific Acquisition/Application Stage

During Senior Years (Senior 1 to 4), students will apply fitness knowledge and skills to design a balanced, personal fitness plan for the development of health-related and/or skill-related fitness components for a specific goal. Students may choose a goal related to general health, basic fitness, healthy heart, fitness for a specific sport, or specific skill performance.

### **Summary Chart**

The Summary Chart for Fitness Management (refer to page 61) outlines the strands, sub-strands, and attitude indicators for the GLO. It is an overview of what a student is expected to know and be able to do in this area.

Physical Education/Health Education
Fitness

### **Scope and Sequence Chart**

The *Scope and Sequence Chart for Fitness Management* (refer to page 62) shows grade placement of the specific student learning outcomes and the stages of learning as indicated by the icons. This chart helps guide teaching, learning, and assessing across the grades.





### **Summary Chart for Fitness Management**

The student will demonstrate the ability to develop and follow a personal fitness plan for lifelong physical activity and well-being.

	Strand Letter	Strand	Sub-Strands
Knowledge	$oldsymbol{A}$	Fitness Components	1. Fitness Components
Kno	В	Fitness Benefits	1. Fitness Benefits
	C	Fitness Development	<ol> <li>Exercise Physiology</li> <li>Training Principles</li> <li>Warm-Up/Cool-Down</li> <li>Motivational Factors</li> </ol>
Skills	A	Acquisition/Application of Fitness Management Skills to Physical Activity and Healthy Lifestyle Practices	<ol> <li>Active Participation</li> <li>Heart-Rate Monitoring</li> <li>Fitness Assessment and Analysis</li> </ol>

Attitude Indicators						
Students will:						
2.1	Show an interest in and responsibility for personal fitness					
2.2	Appreciate the role and contribution of regular participation in physical activity for health and fitness					
2.3	Show respect and acceptance for physical and performance limitations of self and others					

Physical Education/Health Education Fit



### **Scope and Sequence Chart for Fitness Management**

	Sub-strands				2	3	4	5	6	7	8	S1	S2
	l A		f	f	f	11	11	11	11	11	11	11	11
	Strand	rano											
	St	ž.											
6	В	1. Fitness Benefits	11	"		11		11		11		11	11
gp	Strand												
wle	Stra	Str											
Knowledge		1. Exercise Physiology	f	11	#	11	#	11	11	11	11	11	11
I	nd C	2. Training Principles	f	f	f	f	f	11	#	11	11	11	"
	Strand	3. Warm-Up/Cool-Down	f	f	11	#	11	11	11	11	11	11	"
		4. Motivational Factors	f	f	f	11	11	11	11	11	#	11	"
		Sub-strands	K	1	2	3	4	5	6	7	8	S1	S2
***		1. Active Participation	11	"	11	11	11	11	11	11	11	11	"
Skills	nd A		f	f	11	#	11	11	11	11	11	11	11
Sk	Strand	3. Fitness Assessment and Analysis				11	11	11	11	11	11	11	"

See page 18 for definitions related to f Introductory stage, 'Acquisition stage, # Maintenance stage



# 2 — Fitness Management- *Knowledge*

Strand A: Fitness Components

Sub-Strand	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4
1. Fitness Components	" K.2.K.A.1 <b>f</b>	" K.2.1.A.1 <b>f</b>	" K.2.2.A.1 <b>f</b>	" K.2.3.A.1  Discuss exercises and physical activities associated with health-related fitness components (e.g., running develops endurance of the heart, jumping activities develop muscular strength and endurance of the leg muscles)	" K.2.4.A.1  Recognize the health-related fitness components (e.g., cardiovascular endurance, muscular strength, muscular endurance, flexibility)

# 2 — Fitness Management - Knowledge

Strand A: Fitness Components



Grade 5	Grade 6	Grade 7	Grade 8	Senior 1	Senior 2
" K.2.5.A.1 Identify health- related fitness components (e.g., cardiovascular endurance, muscular strength, flexibility, body composition) and one example of an appropriate exercise/ activity for each component (e.g., skip rope for cardiovascular endurance development)	" K.2.6.A.1  Recognize the health and skill-related fitness components (e.g., agility, power, reaction time, speed, coordination) that contribute to skill development	" K.2.7.A.1  Sort and classify physical activities/ exercises (e.g., jogging, cycling, weight training, gymnastics) that are best suited to developing each of the health-related fitness components (e.g., cardiovascular endurance, muscular endurance, muscular strength, flexibility, body composition)	" K.2.8.A.1  Identify the five health-related fitness components (e.g., cardiovascular endurance, muscular strength, flexibility, body composition) and their importance to a balanced fitness plan	" K.2.S1.A.1 Identify the skill-related fitness components (e.g., balance, agility, power, reaction time, speed, coordination) and relate their importance to sport/physical activity performance (e.g., reaction time in goal keeping)	" K.2.S2.A.1  Evaluate the contribution (i.e., associated fitness component, muscle/muscle group's', type of benefit) of selected physical activities and/or exercises to physical fitness (e.g., push-ups can develop muscular strength of arm muscles which contributes to health-related fitness)



# 2 — Fitness Management - Knowledge Strand B: Fitness Benefits

Sub-Strand	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4
1. Fitness Benefits (Science Connections)	" K.2.K.B.1 Discuss the fact that daily physical activity makes muscles strong, including the heart	" K.2.1.B.1 Recognize that vigorous physical activity is important for health and fitness development (i.e., vigorous aerobic activity makes the heart, muscles, bones stronger)		" K.2.3.B.1 Recognize that the body needs sustained or intermittent vigorous physical activity to improve the strength of the heart and lungs (e.g., running, skipping, cycling, swimming, soccer to accumulate at least 10 to 15 minutes of vigorous activity each day)	

# 2 — Fitness Management- Knowledge

Strand B: Fitness Benefits



Grade 5	Grade 6	Grade 7	Grade 8	Senior 1	Senior 2
" K.2.5.B.1  Identify the fitness benefits (i.e., muscle and bone development, decreased susceptibility to stress, positive selfesteem, faster heart-rate recovery) of moderate to vigorous fitness-type activities over time		" K.2.7.B.1  Promote the benefits of physical activity (e.g., greater work capacity, performance enhancement, healthy weight, prevention of injuries, prevention of disease such as cardiovascular and type II diabetes, and prevention of depression) for optimal health and fitness		" K.2.S1.B.1 Differentiate between the benefits of active living and physical fitness development, based on a health and fitness continuum (e.g., mild activity for health benefits, moderate to vigorous activity for fitness benefits)	" K.2.S2.B.1  Investigate the contribution (e.g., strength, endurance, energy expenditure, elasticity, longevity, healthy weight) of exercise/physical activity to optimal health and the prevention of disease (e.g., cardiovascular disease, breast cancer, type II diabetes, osteoporosis)



# 2 — Fitness Management- Knowledge

Strand C: Fitness Development

	Sub-Strand	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4
	Exercise Physiology (Science Connections) structure and function	" K.2.K.C.1a <b>f</b>	" K.2.1.C.1a Show an understanding of the location of main internal body parts affected by exercise (i.e., heart, lungs, bones, muscles)	# K.2.2.C.1a #	" K.2.3.C.1a Show an understanding of the location, size, and function of the heart (e.g., in the chest area, size of a fist, pumps blood)	' K.2.4.C.1a #
b)	effects of exercise on body systems	" K.2.K.C.1b	" K.2.1.C.1b Recognize the physical changes in the body during physical activity (i.e., heart beats faster, body gets warmer, breathing accelerates, perspiration increases)	# K.2.2.C.1b #	" K.2.3.C.1b  Identify short-term effects of exercise/ physical activity on the body (e.g., pulse rate increases, shortness of breath, body temperature increases, perspiration occurs, fatigue sets in)	, K.2.4.C.1b #



Grade 5	Grade 6	Grade 7	Grade 8	Senior 1	Senior 2
" K.2.5.C.1a Recognize the terms associated with the function of the cardiovascular system (i.e., resting heart rate, maximum heart rate, target heart rate, blood pressure, recovery heart rate) in context of exercise and physical activity	" K.2.6.C.1a  Identify the names of the main bones (e.g., humerus, ulna, radius, femur, tibia, fibula, scapula, clavicle, ribs, pelvis, skull) and function (i.e., shape, support, protection) of the human skeletal system in context of exercise and physical activity	" K.2.7.C.1a  Identify the names and locations of the major muscle groups (e.g., biceps, triceps, pectorals, abdominals, quadriceps, hamstrings) in context of exercise and physical activity	" K.2.8.C.1a  Identify the names of muscle groups and specific muscles (i.e., biceps, triceps, pectorals, abdominals, quadriceps, deltoids, trapezius, latissimus dorsi, hamstrings, hip flexors), and primary action (i.e., flexion, extension, abduction, adduction, rotation) across the various joints (e.g., knee, elbow, hip)	" K.2.S1.C.1.a  Explain the structure of skeletal muscle (i.e., belly, bundle, fiber, myofibril) and fiber types (i.e., slow-twitch, fast-twitch) as they relate to muscular development	" K.2.S2.C.1a Investigate the body's response (e.g., stimulation of autonomic nervous system, endocrine response, respiration response, oxygen utilization) to increased activity levels
" K.2.5.C.1b  Describe the effects of aerobic activities and inactivity on the cardiovascular system (i.e., lowers/raises resting heart rate, increased/ decreased heart size, increase/decrease stroke volume)	" K.2.6.C.1b  Describe the effects of exercise and inactivity on the human skeletal system (i.e., increased/ decreased bone density; increased/decreased bone mass)	" K.2.7.C.1b  Describe the effects of exercise and inactivity (i.e., increased/decreased strength, hypertrophy/ atrophy, increased/ decreased lean muscle, increased/decreased elasticity, increased/ decreased muscle tone) on the muscular system	" K.2.8.C.1b  Explain the effects of exercise on use (i.e., increased size and strength of muscles, ligaments, and tendons; increased muscular capillary action; hypertrophy) and overuse (i.e., fatigue, injury, muscle soreness) of muscles	" K.2.S1.C.1b  Identify types of strength exercises (i.e., isometric, isotonic) and stretching exercises (i.e., static, ballistic, passive) for personal fitness development (i.e., strength, endurance, range of motion)	" K.2.S2.C.1b Explain how exercise of different intensities (e.g., mild, moderate, vigorous, intermittant, continuous, aerobic, anaerobic) affects the structure and function (e.g., lower resting heart rate, increased heart size, increased stroke volume, lower blood pressure, increased blood volume) of the cardiovascular system and respiratory system in the context of healthy



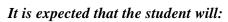
Sub-Strand	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4
2. Training Principles	" K.2.KC.2 <b>f</b>	# K.2.1.C.2 <b>f</b>	" K.2.2.C.2 <b>f</b>	" K.2.3.C.2 <b>f</b>	" K.2.4.C.2 <b>f</b>
3. Warm-up/ Cool-down	" K.2.K.C.3 <b>f</b>	" K.2.1.C.3 <b>f</b>	" K.2.2.C.3  Recognize that proper warm-up activities (i.e., light aerobic activity, stretching exercises) prepare muscles for vigorous activities (e.g., warm-up activities increase blood circulation and elasticity of muscles and ligaments)	# K.2.3.C.3 #	" K.2.4.C.3 Recognize the importance of light aerobic activities and stretching as part of cool-down following a vigorous activity (e.g., decrease blood flow and body temperature gradually)



Grade 5	Grade 6	Grade 7	Grade 8	Senior 1	Senior 2
" K.2.5.C.2  Show an understanding of the factors (e.g., planning, regular participation, effort, adequate information, motivation, commitment, regular monitoring) affecting personal fitness development	# K.2.6.C.2 #	" K.2.7.C.2  Identify and explain the F.I.T.T. principle (i.e., frequency, intensity, time, and type of activity)	" K.2.8.C.2  Describe ways to apply the F.I.T.T. principle (i.e., frequency, intensity, time, and type of activity) to health-related fitness components (e.g., cardiovascular endurance, muscular strength, muscular endurance, flexibility, body composition)	" K.2.S1.C.2  Describe the principles of training and conditioning for physical activities (i.e., progressive overload, specificity, reversibility, regularity, individual variability, starting point)	" K.2.S2.C.2 Explain and apply the principles of training and conditioning for specific fitness components (e.g., develop a stretching program for improved flexibility)
" K.2.5.C.3 Show an understanding that stretching exercises for the major muscle groups should be held for a minimum length of time to be effective (e.g., as long as it feels comfortable which is usually 10-30 seconds with 3-5 repetitions)	" K.2.6.C.3  Identify the proper techniques (e.g., slow, sustained, within comfort zone, focus on target muscles, minimize other body parts, stretch to the limit of the movement, slow and rhythmical breathing) and harmful techniques (e.g., bouncing, swinging, stretching too hard) in stretching exercises	" K.2.7.C.3  Describe the purpose of a warm-up (e.g., increased circulation, increased body temperature, mental preparation, increased focus on task, prevention of injuries, improved performance)  and a cool-down (e.g., lowers heart rate gradually, prevention of dizziness/ blood pooling, minimize muscle stiffness/soreness) for physical activity participation	" K.2.8.C.3  Identify three stages (i.e., indirect, direct, identical) of activity- specific warm-ups and examples of each stage for specific physical activities (e.g., a soccer warm-up could include light running, specific leg-stretching exercises, easy dribbling/passing drills)	" K.2.S1.C.3  Design and implement effective warm-up and cooldown routines for specific team-related physical activities (e.g., volleyball, soccer, rugby)	" K.2.S2.C.3  Design and implement effective warm-up and cooldown routines for specific individual/dual-type physical activities (e.g., running, table tennis, cycling)



Sub-Strand	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4
4. Motivational Factors	f K.2.K.C.4	f K.2.1.C.4	f K.2.2.C.4	' K.2.3.C.4  Identify personal factors (e.g., interests, personal success, previous experiences, type of activities, developmental rates) that influence physical activity participation and build self-confidence	" K.2.4.C.4  Discuss how setting realistic goals and developing strategies (e.g., positive thinking, regular practice, participating with others) can contribute to personal achievement (e.g., sense of enjoyment, self-confidence)





Grade 5	Grade 6	Grade 7	Grade 8	Senior 1	Senior 2
r K.2.5.C.4  Determine the intrinsic (e.g., enjoyment, enhanced health, level of success, increased energy level, affiliation)  and extrinsic (e.g., awards, media, sport heroes, family, peers)  factors that motivate participation for fitness development	' K.2.6.C.4 Review behaviours (e.g., make positive remarks, cheer for others, make encouraging gestures) that encourage effort and participation of others	' K.2.7.C.4 Identify personal factors and preferences for choosing physical activities (e.g., personal interests, influence of friends, appreciation of the outdoors, affiliation, competition, cooperation, fun) for fitness and health	* K.2.8.C.4 #	' K.2.S1.C.4  Identify the factors related to health and fitness development (e.g., health benefit, physical attributes, interpersonal interaction, influence of family, availability of facilities/ equipment, competition, cooperation, personal success, time management) that affect choices of physical activities for self and others	" K.2.S2.C.4 Examine factors (e.g., enjoyment, previous experiences, values and attitude, social benefits, financial commitment, medical, incentives, stages of change) that have an impact on adherence to a personal fitness plan



Strand A: Acquisition/Application of Fitness Management Skills to Physical Activity and Healthy Lifestyle Practices

Sub-Strand	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4
Active Participation     a) general fitness activities	" S.2.K.A.1a Participate in a wide variety of physical activities that contribute to skill/ fitness development and enjoyment	" S.2.1.A.1a Participate in a wide variety of physical activities using basic movement skills (i.e., transport, manipulation, and balance) that contribute to skill/ fitness development and enjoyment	" S.2.2.A.1a Participate in cooperative and/or low competitive-type physical activities (e.g., with partners, in small groups) that contribute to skill/fitness development and enjoyment	" S.2.3.A.1a Participate in exercises/activities that increase flexibility, muscular strength, and muscular endurance	" S.2.4.A.1a  Participate regularly in a variety of purposeful and individually challenging fitness activities that develop health- related and/or skill- related fitness components (e.g., activities that increase heart rate, lung capacity, strength, muscular endurance, flexibility, coordination)
b) aerobic capacity	" S.2.K.A.1b Sustain participation in moderate to vigorous activity for short periods of time, based on functional capacity	" S.2.1.A.1b Sustain participation in moderate to vigorous activity to experience physical changes in the body	" S.2.2.A.1b Sustain participation in moderate to vigorous activity, using basic movement skills	" S.2.3.A.1b Maintain participation in moderate to vigorous activity that contributes to aerobic capacity for short (e.g., intermittent) and longer periods of time (e.g., sustained)	" S.2.4.A.1b  Maintain continuous aerobic activity for a set period of time, based on functional capacity

Strand A: Acquisition/Application of Fitness Management Skills to Physical Activity and Healthy Lifestyle Practices



Grade 5	Grade 6	Grade 7	Grade 8	Senior 1	Senior 2
" S.2.5.A.1a  Demonstrate correct execution of exercises (e.g., keeping body straight for push-ups, keeping legs bent for curl-ups)  designed to improve and maintain personal fitness associated with health-related components	" S.2.6.A.1a  Participate in exercises/activities (e.g., juggling for developing coordination, obstacle course for agility) designed to improve and maintain personal fitness associated with health-related and skill-related fitness components	" S.2.7.A.1a  Demonstrate behaviours (e.g., regular participation, correct and safe execution, appropriate intensity level, self- monitoring, self-discipline) for personal fitness goal attainment	" S.2.8.A.1a  Participate in fitness activities that use the F.I.T.T. principle and contribute to personal health-related fitness goals	" S.2.S1.A.1a  Demonstrate a level of participation that contributes to the goals of an individualized fitness plan	" S.2.S2.A.1a  Participate in different types of training and conditioning activities that contribute to personal fitness development
" S.2.5.A.1b Participate in continuous aerobic activity for a sustained period of time, while maintaining target heart rate	" S.2.6.A.1b  Demonstrate proper technique (i.e., pacing) while participating in continuous aerobic activity for a sustained period of time, while maintaining target heart rate	" S.2.7.A.1b Participate in continuous aerobic activity for a sustained period of time related to rate of perceived exertion and general heart-rate zones	" S.2.8.A.1b  Participate in continuous aerobic activity related to personal target heart-rate zones	" S.2.S1.A.1b  Participate in planned and self- directed activities that maintain heart- rate levels in various zones (e.g., general health, basic fitness, healthy heart)	" S.2.S2.A.1b  Participate at a level consistent with planned and self-directed aerobic activities



Strand A: Acquisition/Application of Fitness Management Skills to Physical Activity and Healthy Lifestyle Practices

Sub-Strand	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4
2. Heart-Rate Monitoring	# S.2.K.A.2 <b>f</b>	" S.2.1.A.2 <b>f</b>	" S.2.2.A.2  Determine own degree of exertion through simple methods (e.g., put hand on chest to feel increase in heart rate, "talk test") while participating in physical activities	# S.2.3.A.2 ##	" S.2.4.A.2  Demonstrate efficient ways (e.g., pulse point location and proper finger positions on wrist and neck, use of heart monitors) to determine heart rate before and after exercise

Strand A: Acquisition/Application of Fitness Management Skills to Physical Activity and Healthy Lifestyle Practices



Grade 5	Grade 6	Grade 7	Grade 8	Senior 1	Senior 2
" S.2.5.A.2  Demonstrate use of short-cut methods (e.g., 6-second count x 10; 10-second count x 6) and/or technology (e.g., heart rate monitors) for monitoring heart-rate counts before, during, and after activities, and relate to target heart-rate zones (e.g., general health, basic fitness, healthy heart)	" S.2.6.A.2 Compare own heart rate during aerobic activity to the general target heartrate zones (e.g., general health, basic fitness, healthy heart)	" S.2.7.A.2  Determine the relationship between the rate of perceived exertion and the general heart-rate target zones (e.g., the level of exertion is somewhat difficult but the ability to talk remains while exercising in a healthy heart zone)	" S.2.8.A.2  Determine personal target heart-rate zone, using simple methods (e.g., Karvonen formula, software programs)	" S.2.S1.A.2  Demonstrate use of heart-rate monitoring (e.g., pulse points, heart monitors, software programs) to compare exertion level in a variety of activities	" S.2.S2.A.2  Demonstrate use of heart-rate monitoring (e.g., pulse points, heart monitors, software programs) in personal fitness training



Strand A: Acquisition/Application of Fitness Management Skills to Physical Activity and Healthy Lifestyle Practices

Sub-Strand Kindergarten Grade 1 Grade 2 Grade 3	Grade 4
3. Fitness Assessment and Analysis  (Mathematics Connection)  a) assessment  (See page 16 for explanation of icons and/or absence of outcomes)  (Mathematics Connection)  b) analysis  (See page 16 for explanation of icons and/or absence of outcomes)  (Mathematics Connection)  a) assessment  (See page 16 for explanation of icons and/or absence of outcomes)  (Mathematics Connection)  a) assessment  (See page 16 for explanation of icons and/or absence of outcomes)  (Mathematics Connection)  (Mathematics Connection)  (Mathematics Connection)  (Mathematics Connection)  (Mathematics Connection)  (Mathematics Connection)  (Mathematics (Mathem	" S.2.4.A.3a

Strand A: Acquisition/Application of Fitness Management Skills to Physical Activity and Healthy Lifestyle Practices



Grade 5	Grade 6	Grade 7	Grade 8	Senior 1	Senior 2
# S.2.5.A.3a #	" S.2.6.A.3a  Demonstrate the use of assessment strategies (e.g., activity log, activity calendar, stopwatch, computer database program, heart-rate monitor) to determine, organize, and record fitness results and physical activity participation	# S.2.7.A.3a #	" S.2.8.A.3a Assess the level of ability in one or more health-related components (i.e., cardiovascular endurance, muscular endurance, muscular strength, flexibility) of physical fitness	" S.2.S1.A.3a Assess the level of ability in one or more skill-related components (e.g., balance, agility, power, reaction time, speed, coordination) of physical fitness	" S.2.S2.A.3a Assess current personal physical fitness levels using appropriate fitness tests and information technology (e.g., stop- watches, heart-rate monitors, fitness-related software programs)
" S.2.5.A.3b Compare own fitness results and physical activity participation over a period of time (e.g., beginning, middle, end of school year) to check and revise personal goals	# S.2.6.A.3b #	" S.2.7.A.3b Chart own fitness results (e.g., using information technology) throughout the year to determine effects of particiation and/or specific training on personal progress	# S.2.8.A.3b #	" S.2.S1.A.3b  Analyze own fitness test results (e.g., using information technology) to establish personal fitness goals	" S.2.S2.A.3b  Analyze own fitness test results (e.g., using information technology) and determine the factors that contributed to the results