
Appendix: **Fitness Management Learning Outcomes**



General Learning Outcome 2: The student will demonstrate the ability to develop and follow a personal fitness plan for lifelong physical activity and well-being.



Fitness Management Outcomes: Kindergarten



Knowledge

K.2.K.B.1 Discuss the fact that daily physical activity makes muscles strong, including the heart.

Skills

S.2.K.A.1a Participate in a wide variety of physical activities that contribute to skill/fitness development and enjoyment.

S.2.K.A.1b Sustain participation in moderate to vigorous activity for short periods of time, based on functional capacity.

Fitness Management Outcomes: Grade 1

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.2.1.C.1a Show an understanding of the location of main internal body parts affected by exercise (i.e., heart, lungs, bones, muscles).

K.2.1.C.1b Recognize the physical changes in the body during physical activity (i.e., heart beats faster, body gets warmer, breathing accelerates, perspiration increases).

S.2.1.A.1a Participate in a wide variety of physical activities using basic movement skills (i.e., transport, manipulation, balance) that contribute to skill/fitness development and enjoyment.

S.2.1.A.1b Sustain participation in moderate to vigorous activity to experience physical changes in the body.

Fitness Management Outcomes: Grade 2

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.2.1.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.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...).

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.2.2.A.1b Sustain participation in moderate to vigorous activity, using basic movement skills.

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.

Attitude Indicators

- 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.

Note: Fitness assessment is not recommended prior to Grade 4.



Fitness Management Outcomes: Grade 3



Knowledge

- 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.2.3.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...).
- 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.2.3.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.2.2.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.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.**

Skills

- S.2.3.A.1a Participate in exercises/activities that increase flexibility, muscular strength, and muscular endurance.**
- 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.2.2.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.3a Record participation in daily physical activities** (e.g., at home, at school, in the community...) **over a period of time** (e.g., a week, a day...) **to determine level of physical activity participation.**

Attitude Indicators

- 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.

Note: Fitness assessment is not recommended prior to Grade 4.



Fitness Management Outcomes: Grade 4



Knowledge

- K.2.4.A.1 Recognize the health-related fitness components** (e.g., cardiovascular endurance, muscular strength, muscular endurance, flexibility...).
- 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.2.3.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.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...).
- 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...).

Skills

- 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...).
- S.2.4.A.1b Maintain continuous aerobic activity for a set period of time, based on functional capacity.**
- 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.**
- S.2.4.A.3a Determine own performance level for health-related fitness components** (i.e., cardiovascular endurance, muscular strength, muscular endurance, flexibility), **using simple tests or tasks** (e.g., sit and reach, modified curl-up, 1600-metre run...).
- S.2.4.A.3b Record own fitness results and physical activity participation over a period of time** (e.g., beginning, middle, end of school year...) **for personal progress.**

Attitude Indicators

- 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.



Fitness Management Outcomes: Grade 5



Knowledge

- K.2.5.A.1 Identify health-related fitness components** (e.g., cardiovascular endurance, muscular 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.2.5.B.1 Identify the fitness benefits** (i.e., muscle and bone development, decreased susceptibility to stress, positive self-esteem, faster heart-rate recovery) **of moderate to vigorous fitness-type activities over time.**
- 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 the context of exercise and physical activity.**
- K.2.5.C.1b Describe the effects of aerobic activities and inactivity on the cardiovascular system** (i.e., lower/raised resting heart rate, increased/decreased heart size, increased/decreased stroke volume).
- 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.2.5.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 a stretch feels comfortable, which is usually 10 to 30 seconds with three to five repetitions...).
- 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.**

Skills

- 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 fitness components.**
- S.2.5.A.1b Participate in continuous aerobic activity for a sustained period of time, while maintaining the target heart rate.**
- 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.2.4.A.3a** \Rightarrow **S.2.5.A.3a Determine own performance level for health-related fitness components** (i.e., cardiovascular endurance, muscular strength, muscular endurance, flexibility), **using simple tests or tasks** (e.g., sit and reach, modified curl-up, 1600-metre run...).
- 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.**

Attitude Indicators

- 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.



Fitness Management Outcomes: Grade 6



Knowledge

- 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.2.6.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 the context of exercise and physical activity.**
- 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.2.5.C.2** \Rightarrow **K.2.6.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.3 Identify the proper techniques** (e.g., slow and sustained, within comfort zone, focusing on target muscles and minimizing other body parts, stretching to the limit of the movement, slow and rhythmical breathing...) **and harmful techniques** (e.g., bouncing, swinging, stretching too hard...) **in stretching exercises.**
- K.2.6.C.4 Review behaviours** (e.g., make positive remarks, cheer for others, make encouraging gestures...) **that encourage effort and participation of others.**

Skills

- S.2.6.A.1a Participate in exercises/activities** (e.g., juggling for developing coordination, moving through obstacle course for agility...) **designed to improve and maintain personal fitness associated with health-related and skill-related fitness components.**
- 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.2.6.A.2 Compare own heart rate during aerobic activity to the general target heart-rate zones** (e.g., general health, basic fitness, healthy heart...).
- 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.2.5.A.3b** \Rightarrow **S.2.6.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.**

Attitude Indicators

- 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.



Fitness Management Outcomes: Grade 7



Knowledge

- 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.2.7.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, prevention of depression...) **for optimal health and fitness.**
- K.2.7.C.1a Identify the names and locations of the major muscle groups** (e.g., biceps, triceps, pectorals, abdominals, quadriceps, hamstrings...) **in the context of exercise and physical activity.**
- 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.2.7.C.2 Identify and explain the FITT principle** (i.e., frequency, intensity, time, and type of activity).
- 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., gradual lowering of heart rate, prevention of dizziness/blood pooling, minimized muscle stiffness/soreness...) **for physical activity participation.**
- 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.**

Skills

- 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.2.7.A.1b Participate in continuous aerobic activity for a sustained period of time related to rate of perceived exertion and general target heart-rate zones.**
- S.2.7.A.2 Determine the relationship between the rate of perceived exertion and the general target heart-rate zones** (e.g., the level of exertion is somewhat difficult but the ability to talk remains while exercising in a healthy heart zone...).
- S.2.6.A.3a** \Rightarrow **S.2.7.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.3b Chart own fitness results** (e.g., using information technology...) **throughout the year to determine effects of activity participation and/or specific training on personal progress.**

Attitude Indicators

- 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.



Fitness Management Outcomes: Grade 8



Knowledge

- K.2.8.A.1 Identify the five health-related fitness components** (e.g., cardiovascular endurance, muscular endurance, muscular strength, flexibility, body composition...) **and their importance to a balanced fitness plan.**
- 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.2.8.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.2.8.C.2 Describe ways to apply the FITT 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.2.8.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.2.7.C.4** \Rightarrow **K.2.8.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.**

Skills

- S.2.8.A.1a Participate in fitness activities that use the FITT principle and contribute to personal health-related fitness goals.**
- S.2.8.A.1b Participate in continuous aerobic activity related to personal target heart-rate zones.**
- S.2.8.A.2 Determine personal target heart-rate zone, using simple methods** (e.g., Karvonen formula, software programs...).
- S.2.8.A.3a Assess the level of ability in one or more health-related fitness components** (i.e., cardiovascular endurance, muscular endurance, muscular strength, flexibility) **of physical fitness.**
- S.2.7.A.3b** \Rightarrow **S.2.8.A.3b Chart own fitness results** (e.g., using information technology...) **throughout the year to determine effects of activity participation and/or specific training on personal progress.**

Attitude Indicators

- 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.



Fitness Management Outcomes: Senior 1



Knowledge

- 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 goalkeeping...).
- 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.S1.C.1a Explain the structure of skeletal muscle** (i.e., belly, bundle, fibre, myofibril) **as it relates to muscular development.**
- K.2.S1.C.1b Explain the structure of fibre types** (i.e., slow-twitch, fast-twitch) **as they relate to muscular development.**
- K.2.S1.C.1c Identify types of strength exercises** (i.e., isometric, dynamic) **and stretching exercises** (i.e., static, ballistic, passive) **for personal fitness development** (i.e., strength, endurance, range of motion).
- 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.S1.C.3 Design and implement effective warm-up and cool-down routines for specific team-related physical activities** (e.g., volleyball, soccer, rugby...).
- 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.**

Skills

- S.2.S1.A.1a Participate in physical activities at a level that contributes to the goals of an individualized fitness plan.**
- 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.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.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.S1.A.3b Analyze own fitness test results** (e.g., using information technology...) **to establish personal fitness goals.**

Attitude Indicators

- 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.



Fitness Management Outcomes: Senior 2



Knowledge

- K.2.S2.A.1 Evaluate the contribution** (i.e., associated fitness component, muscle/muscle groups, 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...).
- 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...).
- 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.S2.C.1b Explain how exercise of different intensities** (e.g., mild, moderate, vigorous, intermittent, continuous, aerobic, anaerobic...) **affects the structure and function of the cardiovascular and respiratory systems** (e.g., lowers resting heart rate, blood pressure; increases heart size, stroke volume, blood volume...) **in the context of healthy living and the prevention of disease.**
- 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.S2.C.3 Design and implement effective warm-up and cool-down routines for specific individual/dual-type physical activities** (e.g., running, table tennis, cycling...).
- K.2.S2.C.4 Examine factors** (e.g., enjoyment, previous experiences, values and attitude, social benefits, financial commitment, medical conditions, incentives, stages of change...) **that have an impact on adherence to a personal fitness plan.**

Skills

- S.2.S2.A.1a Participate in different types of training and conditioning activities that contribute to personal fitness development.**
- S.2.S2.A.1b Participate at a level consistent with planned and self-directed aerobic activities.**
- S.2.S2.A.2 Demonstrate use of heart-rate monitoring** (e.g., pulse points, heart monitors, software programs...) **in personal fitness training.**
- S.2.S2.A.3a Assess current personal physical fitness levels using appropriate fitness tests and information technology** (e.g., stopwatches, heart-rate monitors, fitness-related software programs...).
- S.2.S2.A.3b Analyze own fitness test results** (e.g., using information technology...) **and determine the factors that contributed to the results.**

Attitude Indicators

- 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.

Notes