
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