**Area of Learning: PHYSICAL AND HEALTH EDUCATION — Fitness and Conditioning Grade 12**

**BIG IDEAS**

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| Our personal fitness can be maintained or enhanced through participation in a **variety of activities at different intensity levels**. |  | Knowing how our bodies move and function helps us **stay safe** during exercise. |  | Following proper **training guidelines** and techniques can help us reach our health and fitness goals. |  | **Personal choices** influence our health and fitness goals. |

**Learning Standards**

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| **Curricular Competencies** | **Content** |
| *Students are expected to be able to do the following:*  Health and active living   * Participate daily in **physical activities** designed to enhance and maintain health components of fitness * Identify, apply, and reflect on **strategies** used to pursue personal fitness goals * Identify and analyze the relationships between **lifestyle patterns** and performance in fitness activities * Analyze and critiquehealth messages from a variety of **sources** and describe their potential influences on health and well-being * Analyze and critique a variety of **fitness myths and fads** * Plan ways to overcome potential **barriers** to participation in fitness and conditioning activities * Explain how developing competencies in fitness and conditioning activities  can **increase confidence and encourage lifelong participation** in  physical activities   Human anatomy and physiology   * Identify and describe how muscles produce movement in different parts  of the body and how to train those muscles * Identify and describe the influences of different training styles on  fitness results | *Students are expected to know the following:*   * **anatomical terminology** * skeletal system, including **bones and joints** * ways to train the **muscular and cardiovascular systems** * different types of muscle, including **cardiac and skeletal muscle** * relationships between energy systems and **muscle  fibre types** * different types and functions of **connective tissue** * components of an **exercise session** * exercise **safety and etiquette** * ways to **monitor and adjust physical exertion levels**, including heart-rate monitoring and percentage of one-repetition maximum * principles of program design, including training principles to enhance personal fitness levels, such as the **FITT principle**, **SAID principle**, **recovery**, and **specificity** * **effects of different types of fitness activities** on the body * sources of **health information** * influences of **personal choices** on physical performance * **performance-enhancing supplements and drugs** |

**Area of Learning: PHYSICAL HEALTH EDUCATION — Fitness and Conditioning Grade 12**

**Learning Standards (continued)**

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| **Curricular Competencies** | **Content** |
| Principles of training   * Develop and demonstrate appropriate exercise techniques for a variety  of fitness activities * Create, implement, and reflect on a **personalized fitness program** * Identify and analyze how **different types of fitness activities** influence the  muscular system and the cardiovascular system   Social responsibility   * Demonstrate a variety of leadership skills in different types of fitness activities * Demonstrate appropriate behaviours in different types of fitness activities and environments * Apply safety practices in different types of fitness activities, for themselves and others |  |

| **PHYSICAL HEALTH EDUCATION – Fitness and Conditioning Big Ideas – Elaborations Grade 12** |
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| * **variety of activities at different intensity levels:**   Key questions:   * + How do intensity levels affect my fitness?   + Which activities will support my personal fitness goals?   + How do I choose the appropriate intensity level for the activity? * **stay safe:**   Key questions:   * + What are some safety features to be aware of when exercising?   + How do proper movement patterns ensure safety when exercising? * **training guidelines:**   Key questions:   * + How will following a fitness plan help me reach my fitness goals?   + How do exercise guidelines influence my fitness goals? * **Personal choices:**   Key questions:   * + How do my personal choices affect my fitness goals?   + What effect do sleep and rest have on my fitness?   + Why is recovery an important part of my fitness plan? |

| **PHYSICAL HEALTH EDUCATION – Fitness and Conditioning Curricular Competencies – Elaborations Grade 12** |
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| * **physical activities:**   *Key question:*   * + Which activities target the health components of fitness? * **strategies:**   *Key questions:*   * + What strategies can I use in order to participate daily in physical activities?   + How did my chosen strategies affect my fitness goals? * **lifestyle patterns:**   *Key question:*   * + How do the choices I make in my daily life influence my performance in fitness activities? * **sources:** could include:   + fitness magazines   + websites   + social media * **fitness myths and fads:**   *Key questions:*   * + How realistic are fitness claims made in magazines and online articles?   + What strategies can I use to determine the validity of a fitness myth or fad? * **barriers:**   *Key question:*   * + How can I overcome some of the possible barriers to my participation in fitness and conditioning activities throughout the year? * **increase confidence and encourage lifelong participation:**   *Key questions:*   * + Which physical activities give me a sense of accomplishment and confidence?   + How might my self-esteem be influenced by my fitness levels? * **Human anatomy and physiology:**   *Key questions:*   * + How do I train the different muscle groups in my body?   + Which fitness and conditioning activities train which different muscles in my body? * **personalized fitness program:**   *Key question:*   * + In what ways did my fitness program influence my goals? * **different types of fitness activities:**   *Key questions:*   * + How does changing the speed of my repetitions in weight training activities affect my fitness results?   + How might circuit training affect both the muscular and cardiovascular systems? |

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| **PHYSICAL HEALTH EDUCATION – Fitness and Conditioning Content – Elaborations Grade 12** |
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| * **anatomical terminology:** could include:   + “flexion” and “extension” at the elbow in a biceps curl   + “internal rotation” and “external rotation” at the shoulder * **bones and joints:** could include bones such as femur, humerus, tibia, and ulna, and joints such as shoulder, hip, elbow, knee, and ankle * **muscular and cardiovascular systems:** could include:   + muscular system: resistance training   + cardiovascular system: jogging, running, circuit training, interval training * **cardiac and skeletal muscle:**    + Cardiac muscle is the heart muscle.   + Skeletal muscles move the bones in the body and are part of the muscular system, which helps control body movement. * **muscle fibre types:**   + Fast-twitch muscle fibres have a high anaerobic capacity as well as a fast speed and high force of muscle contraction. These are exercised in, for example, sprint and power activities.   + Slow-twitch muscle fibres have a high aerobic capacity as well as a slow speed and low force of muscle contraction. These are exercised in, for example, endurance activities. * **connective tissue:**    + Tendons connect bones to muscle.   + Ligaments connect bone to bone. * **exercise session:**    + warm-up   + exercise   + cool-down * **safety and etiquette:**    + training practices (e.g., avoiding overtraining and dangerous practices)   + breathing techniques (e.g., breathing out during exertion and breathing in during the “easy phase”)   + spotting (e.g., helping others complete their repetitions in weight-training activities) * **monitor and adjust physical exertion levels:** for example:   + using heart-rate monitors   + checking pulse   + training at a determined percentage of the one-repetition maximum, based on training goals * **FITT principle:** a guideline to help develop and organize personal fitness goals based on:   + Frequency – how many days per week   + Intensity – how hard one exercises in the activity (e.g., percentage of maximum heart rate)   + Type – the type of activity or exercise, focusing on the fitness goal (e.g., jogging for cardio endurance)   + Time – how long the exercise session lasts * **SAID principle:** Specific Adaptation to Imposed Demand: the body will react and respond to the type of demand placed on it  (e.g., a student’s flexibility will eventually improve if he or she participates in regular stretching activities). * **recovery:** for example, one- to two-day rest periods between muscle group training sessions * **specificity:** The types of exercises chosen will determine the kinds of fitness improvements (e.g., a student who wants to improve his  or her flexibility levels would perform stretching exercises). * **effects of different types of fitness activities:** could include:   + strengthening muscles and bones in activities where you have to move and/or control some type of weight (e.g., fitness circuits  and/or jumping and landing)   + strengthening heart and lungs in activities where you are moving at a fast pace (e.g., jogging or running) for periods of time  (e.g., games, swimming, biking)   + reducing stress and/or anxiety levels in activities where you can participate outside and/or elevate the heart rate * **health information:** could include:   + medical professionals   + websites   + magazine and TV advertisements   + retail stores (e.g., vitamin/supplement stores) * **personal choices:** such as:   + food choices   + sleep patterns   + rest patterns between training sessions * **performance-enhancing supplements and drugs:** short- and long-term impacts of legal and illegal supplements and drugs (e.g., steroids,  creatine, protein powder, weight-loss pills) |