**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**
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**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
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|  **PHYSICAL HEALTH EDUCATION – Fitness and ConditioningBig 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?
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|  **PHYSICAL HEALTH EDUCATION – Fitness and ConditioningCurricular 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 ConditioningContent – 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)
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