# BIG IDEAS

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**

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

Grade 12

COLUMBIA
Ministry of Education

# **Learning Standards (continued)**

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

## PHYSICAL HEALTH EDUCATION – Fitness and Conditioning Grade 12

## **Big Ideas – Elaborations**

### · 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 Grade 12

# **Curricular Competencies – Elaborations**

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?

## **Curricular Competencies – Elaborations**

#### · 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?

- 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)