

## Grade Eight

Students in grade eight demonstrate competence in skillful movement in modified, dynamic game/sport situations and in a variety of rhythmic and recreational activities. They transition from modified versions of movement forms to more complex applications across all types of activities. The grade-eight student applies knowledge of major body structures to explain how body systems interact with and respond to physical activity and how structures help the body create movement. Students will explain the relationship between nutrition, activity, and body composition to deepen understanding of energy balance. They will demonstrate socially responsible behavior as they show respect for others, make reasoned and appropriate choices, resist negative peer pressure, and exhibit integrity and fair play to achieve individual and group goals in the physical activity setting. Students are able to set goals, track progress, and participate in physical activities to improve health-related fitness. They have a repertoire of abilities across a variety of game/sport, dance, and recreational pursuits and begin to develop competence in specialized versions of lifelong game/sport activities.

### Motor Skill Development

- 8.1 The student will apply and demonstrate movement concepts and skills in modified versions of various game/sport, rhythmic, and recreational activities.
- a) Demonstrate and apply movement forms to a variety of cooperative and tactical activities that include dynamic and unpredictable situations with a focus on defensive strategies, to include reducing space, transitioning from offense to defense quickly, communicating with teammates, and selecting appropriate tactics to gain defensive advantage.
  - b) Create a rhythmic movement sequence to music as an individual or in a group.
  - c) Demonstrate skill-related components of fitness (agility, balance, coordination, power, reaction time, and speed) specific to a variety of activities.
  - d) Apply and demonstrate biomechanical principles of force, motion (laws of motion), rotation, and energy.
  - e) Demonstrate balance (center of support and center of gravity) in a variety of activities.
  - f) Demonstrate physiological principles of warm-up, cool down, overload, specificity, and progression to improve performance.
  - g) Demonstrate use of technology tools to analyze and improve performance.
  - h) Describe how movement is created in activities that involve agility, power, coordination, reaction time, speed, force, motion, rotation, and energy.
  - i) Explain the role of balance (center of support, center of gravity, planes of movement) in creating movement.
  - j) Analyze movement performance and utilize feedback to learn or improve the movement skills of self and others.

### Anatomical Basis of Movement

- 8.2 The student will apply movement principles and concepts and apply knowledge of major body structures to explain how body systems interact and respond to physical activity and movement.
- a) Explain how body systems interact with one another during physical activity.
  - b) Identify and describe biomechanical principles (e.g., spin, rebound, effects of levers) to understand skillful movements.
  - c) Explain how offensive and defensive tactics and strategies are used to gain an advantage offensively and defensively.
  - d) Analyze performance in a variety of selected skills/activities using movement concepts of agility, power, coordination, reaction time, speed, force, motion, rotation, and energy of self and partner.

- e) Analyze movement progressions (practice, self or peer assess, correct, practice at a higher level, and reassess) of a specific skill and utilize feedback to improve the movement skills of self and/or others.
- f) Describe effects of exercise/activity on physical movement, body systems, and brain development.
- g) Describe how muscles move bones to create paired movement by relaxing and contracting.
- h) Identify types of joints and associated movements, to include ball and socket (flexion/extension), pivot (rotation of one bone around another), and hinge (flexion/extension).
- i) Apply knowledge of anatomy to accurately describe movements in relation to type of joint and associated movement/motion, associated bones and muscles, and type of muscle contraction.

### **Fitness Planning**

- 8.3 The student will apply self-assessment skills and use technology to create and implement a personal fitness plan to improve or maintain personal fitness.
- a) Self-assess level of physical activity and personal fitness on all components of health-related fitness, including body composition, and develop a plan, including SMART (specific, measurable, attainable, realistic, timely) goals, and action-plan strategies that include documentation of activities, mid-year and end-of-year assessments, reflection on progress, and timeline for maintenance or improvement.
  - b) Define and describe specificity, overload, and progression in relation to improving personal fitness.
  - c) Demonstrate use of technology tools to assess, monitor/record, and improve personal fitness.
  - d) Create and implement an activity plan to meet physical activity guidelines of 60 minutes a day that includes warm-up, cool down, and appropriate intensity levels.
  - e) Monitor heart rate before, during, and after moderate to vigorous physical activity (MVPA).

### **Social Development**

- 8.4 The student will describe and apply a variety of social and safety skills to achieve individual and group goals in a variety of physical activity settings.
- a) Describe and demonstrate best practices for participating safely in physical activity, exercise, and dance (e.g., injury prevention, proper alignment, hydration, use of equipment, implementation of rules, sun protection).
  - b) Describe and demonstrate appropriate encouragement and feedback to peers without prompting from the teacher.
  - c) Identify and demonstrate proper etiquette, respect for others, integrity, and teamwork while engaging in physical activity and/or social dance.
  - d) Demonstrate basic movements used in stress-reducing activities (e.g., yoga, Pilates, tai chi).
  - e) Apply communication skills and strategies that promote team/group dynamics.
  - f) Describe and demonstrate conflict-resolution skills.
  - g) Apply problem solving skills in cooperative and dynamic physical activities and/or dance settings.
  - h) Analyze and compare social and emotional benefits of participation in a variety of activities.
  - i) Identify opportunities for social interaction through physical activity in the community.

### **Energy Balance**

- 8.5 The student will explain the relationship of caloric intake, caloric expenditure, and body composition.
- a) Describe the relationship between poor caloric intake and health risk factors.
  - b) Explain the role of energy balance in weight management and body composition.

- c) Describe types of body-composition measures and demonstrate appropriate use of one measure.
- d) Explain a Rate of Perceived Exertion (RPE) scale and how it relates to energy expenditure.
- e) Describe how an RPE scale can be used to adjust workout intensity during physical activity.
- f) Describe the body's physiological responses to warm-ups and cool downs.
- g) Identify activities that use the anaerobic and aerobic energy systems.
- h) Create a one-week meal plan, including snacks and physical activity, based on Recommended Dietary Allowances (RDA), portions, macronutrients, vitamins, minerals, hydration, sugar, and salt.