



MISSOURI'S

Framework for
Curriculum Development
in

Health Education and
Physical Education
(Healthy, Active Living)

K-12



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Table of Contents

I. Functions and Interrelationships of Systems	5
K-4	5
5-8	9
9-12	13
II. Health Maintenance and Enhancement	17
K-4	18
5-8	23
9-12	29
III. Risk Assessment and Reduction	35
K-4	36
5-8	41
9-12	48
IV. Efficiency of Human Movement and Performance	56
K-4	56
5-8	61
9-12	69
V. Physical Activity and Lifetime Wellness	75
K-4	75
5-8	79
9-12	86

I. FUNCTIONS AND INTERRELATIONSHIPS OF SYSTEMS

- A. Body Systems
- B. Social Systems



K-12 Content Overview

Human beings depend upon systems in order to function. A system can be defined as a group of related parts that form a whole. Human systems include not only the complex, integrated processes of the mind and body but also systems of social interactions. Together these systems either strengthen or diminish one's physical, social, mental and emotional well-being.

Body systems are interrelated but they also have distinct functions of their own. Therefore, behaviors and habits which promote appropriate development of every system are crucial to the health of the entire organism (body). The study of body systems includes the structure, function and interrelationships of systems and factors that affect their functioning.

Social systems include relationships among peers, friendships, families and the community. Within these social systems are networking agencies and controls that strengthen, promote, or protect individual, family and community health. In order to function well within social systems, individuals need to be able to understand their own feelings and those of others. Social and communication skills also can enhance one's ability to function well within social systems. These include the ability to express one's self in a variety of situations, interpreting communication from others and representing thoughts and ideas while taking into consideration other viewpoints. A "health literate" individual also needs to realize that a variety of cultures co-exist within our country and that ethnic and multicultural traditions and beliefs can provide unique and challenging perspectives to one's study of social systems.

The content in this strand has not been included in the Science Framework but districts might choose to teach it as part of a science unit or course.

I. Functions and Interrelationships of Systems

During this grade span, students should have experiences that develop a foundation for understanding how systems function independently or together. Primary students usually are very eager to discover the “mysteries” of their own body. They should be able to describe how parts of a system relate to each other as well as how they function. They should also examine how health problems interfere with healthy system functioning.

The study of social systems at the primary level includes an understanding of one’s feelings and how to communicate these feelings in health-enhancing ways. Family and friendships have a tremendous influence on one’s social and emotional health. The role these social systems play and the interactions of the student within these systems help to develop a sense of self-worth and well-being. As students grow in their understanding of social systems, they also can comprehend how people in the community work to protect or promote health.

A. Body Systems

4

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p><i>By the end of grade 4, all students should know that</i></p> <ol style="list-style-type: none"> 1. The ability to live, work and play depends upon the healthy functioning of body systems. (HP 1) 2. Daily activities can affect body system functioning. (HP 2) 3. The skeletal/muscular, cardiovascular, respiratory, urinary, digestive systems and nervous system have basic structures and functions that enable humans to live and perform a variety of tasks. (HP 1) 4. The skeletal system provides a framework for the body. It protects internal organs, aids in movement and plays a role in blood cell formation. (HP 1) 5. The muscular system provides humans with the ability to move and perform a variety of physical tasks. Specialized 	<p><i>By the end of grade 4, all students should be able to</i></p> <ol style="list-style-type: none"> a. organize data, information and ideas about the structure and function of the body into useful forms (including charts, graphs, outlines) for analysis or presentation (1.8) a. evaluate how certain behaviors (both positive and negative) influence body system functions in order to determine a cause and effect relationship (1.6) a. identify and describe the basic structure and functions of the circulatory, respiratory, urinary, skeletal/muscular, digestive, and nervous system (1.10; 2.1) a. plan effective oral and written communications regarding the body systems, their structure and functions for parents and other students (2.1) a. design and conduct introductory laboratory investigations regarding body system functions, e.g., heart rate and physical activity, strength of bones, volume of exhaled air, the effect of digestion on food (1.3) 	<ul style="list-style-type: none"> • Create student-generated stations for a class health fair using research and inquiry about body systems and their functioning. • Match behaviors and effects on body systems to determine cause and effect relationship, e.g., smoking causes lung cancer; lack of exercise, high-fat diets increase risk of heart disease; loud music can affect hearing, etc. • Create an “Owner’s Manual” of the Incredible Machine: The Body. Include a general operations guide (body systems and functions), a use and care section, and a troubleshooting guide that describes factors that can affect each body system and how to prevent or manage these problems. • Design a model of bones, muscles and joints using paper towel tubes, brads, tape and long balloons. • Create a classroom “The Inside Story of the Human Body” booklet.

I. Functions and Interrelationships of Systems

5

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>muscles help humans breathe, digest food, eliminate wastes and circulate blood. (HP 1)</p> <p>6. The cardiovascular system includes the heart and blood vessels. The heart pumps blood to all body cells. The blood delivers oxygen and nutrients and removes carbon dioxide and other waste materials. (HP 1)</p> <p>7. The respiratory system, which includes the air passage ways and lungs, takes in oxygen from the air, delivers it to the blood through the capillaries, and removes carbon dioxide from the blood. (HP 1)</p> <p>8. The urinary system is part of the excretory system. It includes the kidneys, ureters, bladder and urethra. The urinary system filters waste from the blood and removes excess water. (HP 1)</p> <p>9. The digestive system processes food into a form the body can use for growth and internal functioning. It also removes solid waste from the body. (HP 1)</p> <p>10. The human brain is part of the nervous system. The brain is important for all thought processes and for feelings, coordination and balance. The brain also monitors internal functioning including breathing and heart rate. (HP 1)</p>	<p>a. design and conduct field and laboratory inquiries by using the five senses to gather information, make observations, organize data, predict, summarize and draw conclusions about their personal and social environment (1.3)</p>	<ul style="list-style-type: none"> • Conduct “mock” interviews with students who assume the role of body systems or body parts in order to interpret and respond to their understanding of structures and functions. • Construct a model of skin and its functions by ironing wax paper over a drawing of a body with bones, blood vessels and body organs. • Produce and evaluate walk-through learning stations about the body. • Simulate the absorption of food in small intestines through use of colored sugar water and dialysis tubing. • Using the scientific processes (gathering information, organizing data, predicting, summarizing and drawing conclusions), have students study the five senses through the construction of scent boxes, use of tactile socks, 2-point discrimination, tasting parties and a field study of the school’s outdoor environment.

I. Functions and Interrelationships of Systems

B. Social Systems

What All Students Should Know

By the end of grade 4, all students should know that

1. Social systems include functions and characteristics of family, friends and peer relationships. (SS 6)
2. Family, friends and peers can have a positive or negative influence on their well-being. (HP 2)
3. Individuals have unique needs, strengths, abilities and responsibilities within culturally diverse social systems. (HP 2)
4. There are agencies such as the Department of Health, the fire department, police department, etc. that work to improve or maintain the health of the community. (SS 6)

What All Students Should Be Able To Do

By the end of grade 4, all students should be able to

- a. identify characteristics of a healthy community and environment (1.6)
- a. describe characteristics needed to be a responsible friend and family member (4.3)
- a. identify and discuss the effects of human actions toward people with different abilities, chronic illnesses or toward people with different ethnic and cultural backgrounds (2.3; 4.3)
- b. analyze the duties and responsibilities needed to be a contributing member of a social community (4.3)
- a. identify appropriate health professionals who can provide assistance for specific health issues or problems (3.2)

Sample Learning Activities

- Brainstorm the characteristics of a healthy community and environment, including the roles of individuals, agencies, etc. Simulate a community within the classroom. Assign roles, issues or problems, then work together to determine how to keep the community healthy.
- Identify through literature studies, e.g., *Grandma's Quilt, A Chair For My Mother* and journal writings how one's roles and responsibilities in a family affect self and others.
- Use literature studies, e.g., *Molly the Brave and Me* and classroom discussions in order to study and form conclusions about friendships, their characteristics and the skills needed to form and maintain them.
- Read a story about an individual in a social situation, e.g., *Molly's Pilgrim, Amazing Grace, The Best Present, Number the Stars*, then describe feelings that one might have in that situation and actions that would be helpful.
- Discuss and role-play positive actions toward individuals with physical and mental differences.
- Make a map illustrating the locations of general health-care providers in a neighborhood or community with an accompanying chart which illustrates the type of services offered, e.g. fire, police, hospitals, water sanitation, and animal control.

I. Functions and Interrelationships of Systems

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>5. A component of effective communication is the ability to express needs, wants and feelings in health-enhancing ways. (HP 2)</p> <p>6. Effective communication includes verbal and non-verbal skills such as organizing thoughts, attentive listening, speaking clearly, interpreting non-verbal cues and avoiding put-downs. (CA 6)</p>	<p>a. identify confusing, difficult or threatening situations that may require the assistance of a trusted adult (3.1)</p> <p>b. identify and demonstrate appropriate ways to express needs, wants and feelings in a variety of situations (2.1)</p> <p>c. demonstrate ways to communicate care, consideration and respect of self and others (4.7)</p> <p>a. use effective communication skills in the classroom and in simulated social situations (2.3)</p> <p>b. discuss and respond thoughtfully to others by exhibiting attentive listening skills (2.3)</p>	<ul style="list-style-type: none"> • Complete journal writing or a “My Feelings” booklet to distinguish between types of feelings and situations in which they occur. • With a partner, use attentive listening skills to follow directions regarding the duplication of a graphic and a design using math manipulatives. Critique the results and determine how to improve the communication techniques used in each. • Develop a weekly social skills calendar, discuss behaviors that demonstrate each skill. Observe and evaluate the use of the skill during regular classroom activity.

I. Functions and Interrelationships of Systems

Applying the concept of systems during this grade span implies some understanding of the characteristics and dynamics of systems. Systems are examined not just to name the parts but to emphasize the interdependence of structure and function. Students can investigate the interactions among systems such as nervous, endocrine and immune, cardiovascular, respiratory and skeletal/muscular. They can apply the understanding of system interdependence to predict and analyze cause and effect relationships.

As middle school students begin to experience profound physical and emotional changes, it is important to understand what system changes are occurring, why changes are important in the human life cycle and what adaptations need to occur as a result of these changes.

Students during this grade span need an understanding that social systems function best in an environment of healthy interactions and interdependence. The interaction with family, friends and peers can influence one's behaviors. Likewise, the functions and interdependence among government and community health agencies can affect both individual and community well-being.

A. Body Systems

8

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p><i>By the end of grade 8, all students should know that</i></p> <ol style="list-style-type: none"> Human body systems do not exist in isolation. Their optimal functioning depends upon their interdependence. When system failure occurs in one, it ultimately causes problems for other body systems. (HP 1) The endocrine system is a system of ductless glands that secrete hormones into the blood. These hormones regulate many vital body functions, including growth (pituitary), reproduction (ovaries, testes), fight or flight responses (adrenal) and energy, metabolism (thyroid). (HP 1) 	<p><i>By the end of grade 8, all students should be able to</i></p> <ol style="list-style-type: none"> apply knowledge of system interrelationships to predict health problems that could occur as a result of dysfunction (1.6; 1.10) describe the physical changes that occur during puberty and the interrelationship among systems that cause these changes (2.3) 	<ul style="list-style-type: none"> Conduct an investigation using a mock scenario of Body Incorporated in which body systems must defend their roles and interrelationships with others to verify their importance. Assume the role of the pituitary gland as chairperson for adolescent restructuring. Assign committee members to define their tasks during puberty, determine what systems must work together to accomplish these tasks and what adaptations can be made to ease "restructuring."

I. Functions and Interrelationships of Systems

6

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>3. The nervous system includes the brain, nerves and spinal cord. It is the communication center for the body, sending and receiving messages, regulating body functions and serving as the control center for the five senses and for emotions, speech, coordination, balance, and learning. Learning is influenced by the brain's short-term and long-term memory as well as learning styles and the environment. (HP 1)</p> <p>4. The immune system is the body's defense team. It provides the body several lines of defense in order to fight infections and to build resistance to disease. (HP 1)</p> <p>5. The reproductive system includes male and female organs that release specific hormones responsible for the development of secondary sex characteristics and for the production and release of reproductive cells, allowing the opportunity for fertilization. (HP 1)</p> <p>6. Humans follow a predictable pattern and sequence of reproduction, growth and development. (HP 1)</p> <p>7. Fetal development and birth follows a sequential process. (HP 1)</p>	<p>a. analyze how learning is influenced by their memory, environment, learning styles and learning strategies (1.2)</p> <p>a. conduct research to answer questions and evaluate information about the immune system (1.2)</p> <p>a. research the physical, emotional, social and intellectual changes occurring during puberty (1.2)</p> <p>a. use a variety of resources and technologies in order to describe the structure, function and interactions of the endocrine, reproductive, nervous and immune systems (1.4)</p> <p>a. sequence the process and events of the human life cycle including fertilization, fetal development and birth (1.8)</p>	<ul style="list-style-type: none"> • Use a model of the brain and diagram of how we learn (memory model) to describe what diminishes or enhances learning. • Conduct learning stations related to brain, nervous system and five senses functioning, e.g., role-play neuron transmission, try optical illusions, memory games. • Use CD-ROM and interactive computer technology (e.g., Adam, 3D Human Body) to identify and select body system information and data to support interrelationships. • Use reproductive and fetal development models to study the human life cycle from fertilization to birth. Assess understanding through objective test and/or model stations. • Hypothesize if there is a relationship between rate of growth and gender. Compare height and body ratios for males and females in a class and plot on growth charts. Find class mean for males and females. Interpret and summarize the results. • Apply the study about the body systems to develop a review board game or brochure and/or model stations.

I. Functions and Interrelationships of Systems

B. Social Systems

What All Students Should Know

- By the end of grade 8, all students should know that*
1. Relationships with peers can include both negative peer pressure and positive peer support. (HP 2)
 2. Family, friends and culture can influence personal health practices. (HP 2)
 3. There are cooperative and social skills that facilitate working in group situations. (HP 2)
 4. All individuals have unique needs that should be considered in order to provide maximal opportunities to lead a healthy, productive life. (HP 2)
 5. Defense mechanisms are learned behaviors that can be both constructive or destructive as a means for handling emotions. (HP 2)
 6. Individuals have responsibilities within culturally diverse social systems. (SS 6)

What All Students Should Be Able To Do

- By the end of grade 8, all students should be able to*
- a. differentiate between negative peer pressure and positive peer support when making informed and responsible decisions (4.1)
 - a. evaluate ideas and perspectives regarding the influence friendships, peers, and acquaintances have on choices and behaviors during adolescence (1.6)
 - a. evaluate the importance of effective listening skills in building and maintaining friendships (2.6)
 - a. discuss problems with a trusted adult when encountering confusing or difficult situations (3.2)
 - a. solve problems related to the management of feelings experienced during stress, disappointment, separation or loss (3.5)
 - b. analyze ways individuals can respond to the needs of people with varying abilities (4.3)
 - a. analyze cultural influences on personal health practices and decisions (4.1)

Sample Learning Activities

- Role-play a scenario in which both positive and negative peer pressure is used to reach a decision, e.g., cheating on a test. Discuss types of peer pressure experienced during adolescence and problemsolve ways to deal with it.
- Problem solve the following scenario: an agenda item before the City Council is whether the mall should be allowed to have a no-smoking policy. Class members will represent different viewpoints including an individual with asthma, a smoker, a restaurant owner, the County Health Department, the tobacco industry, and representatives from the American Lung Association, American Heart Association, etc. Conclude how public health agencies and community in-put can promote and protect health. Make a decision based on the arguments and perspectives heard. Analyze and evaluate the results of the solution considering ethics and societal responsibilities.
- Read and view various communications including resources found in the community regarding adolescent health concerns or a community health issue. Within groups or debate teams, demonstrate the cooperative and social skills necessary to organize and present ideas, opinions, arguments regarding the topic.
- Given a scenario, identify defense mechanisms and propose more appropriate means of handling each situation.
- Research how health practices can differ based on cultural influence e.g., Asians' use of meat as side dish (less heart disease risk).

I. Functions and Interrelationships of Systems

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>7. Community networks and government agencies protect and promote individual and community health. (SS 6)</p> <p>8. Communication skills needed to foster healthy relationships with peers, adults and members of the community include; demonstrating care, consideration and respect of self and others, managing feelings caused by disappointment, stress, separation or loss and recognizing barriers to effective communication. (HP 2)</p>	<p>a. select appropriate resources in the community to determine their role in prevention and treatment of health-related problems (American Cancer Society, March of Dimes, American Heart Assoc., etc.) (1.7; 3.4; 3.7)</p> <p>b. examine the viewpoints and collaborative efforts of individuals, communities, and government regarding societal health issues in order to make decisions that are informed and responsible, e.g., recycling efforts, pollution controls (3.6; 4.6)</p> <p>a. exchange information, questions and ideas while recognizing the perspectives of others. (4.1)</p>	<ul style="list-style-type: none"> Using an “Adopt the City” model, assume roles to analyze ways that community and government agencies affect health promotion and prevention. Demonstrate through simulation, the communication skills needed to foster healthy relationships with peers, adults, and members of the community. Anticipate the impact of the message and consider its effect on the individual and others.

I. Functions and Interrelationships of Systems

Secondary students should have a fundamental understanding of the complexity of structures, functions and interdependence of human systems and the study of human genetics. The study of symptoms at this level focuses on the impact personal behaviors can have on healthy system functioning.

Much of what is known today about healthy system functioning is a result of technological advances and current research on the human body. In order to understand scientific developments, students need opportunities to use the scientific method and problem solving in more sophisticated lab situations.

As students begin to become more informed and independent and enter the world of work, they need to understand how to access and use the health-care system and to examine the role of individual rights versus the community regarding health issues. They also need opportunities to explore health-related careers and the academic preparation necessary to pursue them.

Maturing relationships with others and group dynamics have the ability to enhance or diminish personal health and well-being for young adults. Therefore, relationships and communication skills need to be addressed in the curriculum. In addition, as students mature, they are ready to learn advocacy roles and the importance of working collaboratively with others for healthy communities.

A. Body Systems

12

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p><i>By the end of grade 12, all students should know that</i></p> <ol style="list-style-type: none"> 1. Personal health behaviors can have both short and long -term consequences on the functioning of human body systems. (HP 2) 2. The use of the scientific method and problem-solving help individuals to examine system functions and disease formation. (HP 1, 3) 3. Media, culture, technology and medical research impact and influence current health knowledge, behavior and practices. (HP 6) 	<p><i>By the end of grade 12, all students should be able to</i></p> <ol style="list-style-type: none"> a. determine the impact both history and current practices have on the development of a healthy body (1.10) a. recognize actual problems related to healthy system functioning encountered in daily living situations, e.g., stress, inactivity, high-fat diet, etc. Using appropriate technology and other resources, formulate logical and creative strategies to predict, prevent and solve health problems (3.1; 3.2) a. design and conduct laboratory inquiries to test hypotheses and to form conclusions about body functions (1.3) 	<ul style="list-style-type: none"> • Design and conduct laboratory experiences such as a blood incompatibility lab, digestive enzyme effects on nutrients, lactic acid during exercise and muscle fatigue to study body functions. • Conduct research to examine products and practices that may enhance or inhibit healthy system functioning. Formulate a hypothesis to support one’s interpretation, e.g., effects of exercise on cardiorespiratory fitness levels. • In research teams, investigate medical advances related to a specific body system or genetics and fetal development. Share findings in a mock research conference or in a journal article describing how the findings have changed human functions and ability.

I. Functions and Interrelationships of Systems

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>4. The study of genetics can help individuals determine dominant and recessive traits and to understand the impact heredity has on system functions and disease formation. (HP 1)</p>	<p>a. conduct research to answer questions regarding dominant and recessive traits to determine inherited characteristics (1.2)</p> <p>b. evaluate information, ideas and arguments regarding current technological health advances and research to determine their perspective regarding a health-care issue, e.g., gene testing, organ transplants, etc; evaluate the results considering such issues as ethics (1.6; 3.8)</p>	<ul style="list-style-type: none"> With partners and through laboratory activities, e.g., PTC and taste testing paper, examine dominant and recessive traits then summarize class results. Use results to determine probability of inherited characteristics and confirm through punett square studies.

I. Functions and Interrelationships of Systems

B. Social Systems

What All Students Should Know

- By the end of grade 12, all students should know that*
1. As individuals mature, the dynamics of relationships with family, group and the community become more complex and more important for well-being and stability in the world of work. (HP 2)
 2. The rights of both individuals and the communities need to be considered when making societal health decisions. (HP 2)
 3. Barriers exist that inhibit individuals from leading independent, healthy and productive lives. (HP 2)

What All Students Should Be Able To Do

- By the end of grade 12, all students should be able to*
- a. evaluate factors that affect personal and family health including heredity, lifestyles, economics and health-care access (1.6; 3.1)
 - a. evaluate the extent to which strategies such as shared decisionmaking, collaboration and consensus building enhance group dynamics (3.7)
 - a. propose solutions to reduce the barriers that prevent individuals from leading healthy productive lives (3.6)

Sample Learning Activities

- Given a health-related issue such as lack of physical activity in high school students, brainstorm solutions and select a plan of action, using group collaboration and consensus building. Verify whether a solution addresses the problem to which it was applied and evaluate the group dynamic processes used in solving the problem.
- Identify a health issue pertinent to the community for which preventive services are inadequate, then write a persuasive letter to a local or state leader to request assistance in fulfilling the need.
- Debate a public health issue such as serving alcohol to minors and the open container ordinance, taking into consideration an individual's rights versus community rights.
- Assume the role of an individual with a disability for a day (blindness, wheel-chair confined, etc.). At the end of the day, discuss feelings, frustrations, experiences and how society could improve the quality of life for individuals with disabilities.
- Identify social and environmental barriers in school and public places for individuals with disabilities. Develop strategies to address the problem and include them in a report to the principal or a letter to the editor.

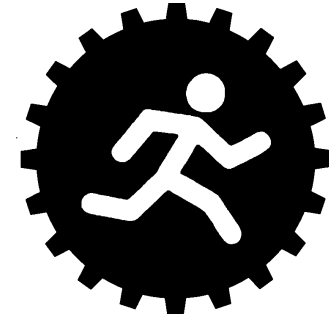
I. Functions and Interrelationships of Systems

15

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>4. An understanding of the health-care system includes how it functions, how to access it, how to use it to plan for future health security. (SS 6)</p> <p>5. Many careers exist in health-related professions. (SS 6)</p> <p>6. Defense mechanisms are learned behaviors that can be both constructive or destructive as a means for handling emotions. (HP 2)</p>	<p>a. select and apply appropriate strategies to solve problems related to health-care systems, considering such issues as cost of experimental drugs, medical ethics, access issues; verify whether or not a solution addresses the problem to which it was applied (3.6; 3.8)</p> <p>a. explore and prepare for educational and job opportunities in health and fitness-related careers (4.8)</p> <p>a. distinguish between constructive and destructive ways to deal with problems and emotions (3.1; 3.5)</p>	<ul style="list-style-type: none"> • Conduct a survey to determine the health-care needs and concerns of young adults; and classify the data groups, create visuals showing health agencies, providers and or resources available in the community that address those needs and concerns; then present the information to different groups (e.g., health insurance companies, fitness clubs, community centers). • Using HIV/AIDS, teen pregnancy, indiscriminate use of antibiotics, or other current health problems, assume roles of a health-care panel that views the problems and ways to address them from a legal, actual governmental and global perspective. • Explore health-related career opportunities, then establish a plan of action to meet career goals. • Given scenarios, identify defense mechanisms and propose more appropriate means of handling each situation.

II. Health Maintenance and Enhancement

- A. Personal and Family Health**
- B. Nutrition Principles and Practices**
- C. Consumer Health**
- D. Life Management Skills**



K-12 Content Overview

Health literacy includes not only an understanding of how the body functions but also behaviors and decisions that will foster life-long health. It is assuming responsibility for personal health throughout the life cycle and fostering behaviors and practices that will enhance family health. Health maintenance and enhancement require diligence and continuous effort but it is an investment that produces many benefits.

Personal and family health involves learning to take care of one's physical self, including physical activity, weight management, personal health habits and hygiene. Personal health practices are not static; they involve changes and adaptation as one progresses through the human life cycle. Family interaction and health practices also influence individual health. Regardless of the family structure, students should understand health concerns and issues for all family members who may be at various stages of the human life cycle. As the student progresses through the life cycle, his/her health needs change, prompting the need for accurate information and responsible decision making.

The link between nutrition and health is well documented. The study of nutrition provides students with the knowledge and skills needed to make healthy food choices throughout their lives. It also provides students and their families with the opportunity to see the relationship between nutritional habits, health status, and maximum physical and academic achievement.

Personal and family health choices can be greatly influenced by advertising and the media. Therefore, consumer health skills are essential for analyzing the different facts and myths surrounding health issues and for avoiding fraudulent health information, products and services. Consumer health includes understanding how advertising can influence decisions regarding health products and services. Costs, benefits and claims of health information, products and services can be investigated to determine their validity, reliability and effectiveness. Knowing when to seek health care and knowing the impact technology has on overall health are important consumer issues to be addressed.

Maintaining and enhancing one's health also include learning life management skills which can help students lead healthy, productive lives. Personal goal setting, the process of decision making and refusal, assertive and conflict mediation are skills that can help them plan for their future, make reasoned and informed choices and deal with pressures, stress or controversy.

II. Health Maintenance and Enhancement

Although much of their environment and daily living activities are beyond their control, young children can choose many behaviors that contribute to good health. Focusing on what they can do will give students a sense of self-responsibility and capability for managing and enhancing their personal health. Dental and physical hygiene, exercise and rest are habits and behaviors that provide the foundation for life-long health practices. As students progress through rapid changes in physical, social and intellectual growth, they are given an awareness that all living things grow and change throughout the life cycle.

Food preferences and dietary practices are formed early; therefore, it is important to provide opportunities for students to investigate healthy eating patterns and learn how to select a variety of foods that promote health. Students at this age range need a basic understanding of nutrition, why food is important for growth, energy and meeting the body's daily needs.

Decisions regarding health maintenance and enhancement can be influenced by a variety of factors. An important concept for young students to recognize is that everyone is a consumer and there are advertising strategies used to influence the selection of products and services. Media, technology and other sources can either help or hinder individuals from practicing positive health habits.

A healthy lifestyle also depends on mental, social and emotional well-being. Life management skills introduced in age-appropriate ways can help students learn the processes for making good decisions and setting goals, plus skills to deal with anger, pressures and social conflicts.

A. Personal and Family Health

17

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p><i>By the end of grade 4, all students should know that</i></p> <ol style="list-style-type: none"> 1. Personal health is enhanced by behaviors that include care of skin, hair, teeth, gums, eyes, nose, ears and nails. (HP 2) 2. Regular physical activity, adequate sleep and balanced nutrition contribute to health maintenance and enhancement. (HP 2) 	<p><i>By the end of grade 4, all students should be able to</i></p> <ol style="list-style-type: none"> a. identify and discuss how personal behaviors can enhance the health of an individual and reduce the chances of disease, including adequate sleep, balanced nutrition, good posture, moderate exercise, appropriate clothing, hygiene and cleanliness in food handling (4.7) a. apply knowledge about physical activity and care of the body to daily personal health habits (1.10) b. using a variety of hands-on resources, literature and discussion, identify teeth and their functions in eating, speaking and appearance (1.4) 	<ul style="list-style-type: none"> • Plan and develop a health fair for peers and parents that includes demonstration stations on ways to maintain a healthy body, including personal cleanliness, fitness and care of the teeth. Determine the impact of the health messages by asking students to write, demonstrate or draw ways to maintain a "Healthy Me." • Role-play correct handwashing using a human sink. (A square cardboard box and rope hangs around the students' neck, the extended hands become the faucets, the nose is the soap dispenser and the chin and neck hold the paper towels.) After drying hands, use paper towels to turn off faucets to prevent touching the faucets with clean hands.
<p>HEALTH EDUCATION PHYSICAL EDUCATION</p>		

II. Health Maintenance and Enhancement

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>3. Preventive care enhances personal health and assists in early detection and treatment of health problems, e.g., regular health and dental check-ups, immunizations. (HP 3)</p> <p>4. All organisms grow and change throughout life. (HP 1)</p>	<p>a. identify why preventive physical and dental exams are important for health maintenance (4.7)</p> <p>a. identify and sequence the stages of the human life cycle, e.g., infant, toddler, preschool, school-age (1.6)</p>	<ul style="list-style-type: none"> • Create a visual reminder that illustrates an appropriate schedule for a personal health habit, e.g., brushing teeth, exercise, personal cleanliness. • Using a large toothbrush and model set of teeth, demonstrate correct brushing and flossing. Compare healthy set of teeth to Mr. Gross Mouth and list factors that can cause teeth and gum problems, e.g., poor brushing, chewing tobacco, sticky foods, soda. • Read literature about teeth, e.g., <i>Munchy Mark</i>, <i>My Dentist</i>, <i>Little Rabbit's Loose Tooth</i>, etc. and use tooth models to create a booklet describing why teeth are important and how to take care of them. • Practice flossing with a partner by using tempera paint on hands and yarn as floss. (Fingers become teeth and paint is plaque.) • Create a time line that depicts where they and other family members are in the life cycle, i.e., preschooler, school age or older adults. Enhance time line with special events from each person's life.

II. Health Maintenance and Enhancement

B. Nutrition Principles and Practices

What All Students Should Know

By the end of grade 4, all students should know that

1. Basic principles of nutrition (food sources, the food pyramid and essential nutrients) are necessary for an understanding of how nutrition and health are interrelated. (HP 2)
2. Balance, variety and moderation in the diet will enhance and promote health. (HP 2)
3. Food provides energy for the human body to work, grow and perform daily routines. (HP 1, 2)
4. Food choices are influenced by availability, family preferences, and culture, e.g., nationality, religion, heritage. (HP 2)

What All Students Should Be Able To Do

By the end of grade 4, all students should be able to

- a. identify, locate and select information about the sources and basic functions of the six essential nutrients (1.6)
- b. categorize foods into the appropriate group on the food pyramid based on primary nutrient content (1.10)

- a. make informed decisions regarding food choices based on an understanding of balance, moderation and variety (4.7)

- a. describe the relationship between food intake and energy/activity levels (1.6)

- a. describe the relationship of family preferences and culture to their food choices (1.7; 1.10)

Sample Learning Activities

- Apply basic knowledge of nutrients and their sources to create school lunches for a week, using the food pyramid.
- Using a shower curtain on which the food pyramid has been traced, attach pictures to the correct section. (Food can be attached to the shower curtain with Velcro. Pictures can be obtained from the Dairy Council, magazines, etc.) Plan a meal by pulling foods off the pyramid.
- Demonstrate why a variety of food is needed by the body by building a wall of the "Super 21" (number of servings needed daily for an elementary child). Use tissue boxes laminated with each food group to build a "brick wall" with spaces in between. Tally your daily servings, then remove from "wall" the food servings you missed. Wall will tumble if too many food servings were missed. Compare results of activity to your health and nutritional needs.
- Invite a guest speaker to share or speak about foods from a different culture. Follow up with research and illustration on particular food customs.

II. Health Maintenance and Enhancement

C. Consumer Health

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p><i>By the end of grade 4, all students should know that</i></p> <ol style="list-style-type: none"> 1. The media can influence one’s health habits and decisions, e.g., persuasive advertising techniques. (HP 6) 2. Reading labels can help consumers make decisions about product selections. (HP 2, 6) 3. Health literacy includes the ability to understand how communication techniques used through a variety of media can influence health decisions and practices. (HP 6) 	<p><i>By the end of grade 4, all students should be able to</i></p> <ol style="list-style-type: none"> a. interpret how the media can influence a consumer’s decisions regarding health practices and products (1.7) a. interpret labels in order to make decisions about product selections (1.5; 4.1) a. use technological tools to exchange information and ideas (2.7) 	<ul style="list-style-type: none"> • Interview students and adults regarding specific products and why these products have been selected, e.g., soda, cereal, juice, soap, toothpaste, chips, etc. Then graph and narrate results. • After discussion and study of basic advertising techniques, create an advertisement for a health product, food or services that uses one or more advertising techniques. • Plan an effective advertising campaign (e.g., visuals, video, brochure) to persuade students to follow safety rules, eat breakfast, participate in a physical activity, etc.

II. Health Maintenance and Enhancement

D. Life Management Skills

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p><i>By the end of grade 4, all students should know that</i></p> <ol style="list-style-type: none"> Basic life management includes skills in decision making, problem solving, goal setting, refusal and stress management. (HP 2) <p>(Note: See the Glossary for definition of above terms.)</p>	<p><i>By the end of grade 4, all students should be able to</i></p> <ol style="list-style-type: none"> develop and record short-term goals regarding personal health and /or fitness, e.g., brush teeth twice a day for the next 2 weeks, walk for 15 minutes three times a week after school, monitor progress and evaluate (4.5) identify personal stressors in daily living and appropriate strategies to cope or adapt (3.1) apply basic conflict resolution strategies to solve or prevent problems (3.2) demonstrate assertive/refusal skills and identify situations in which they should be used (1.10; 4.1) 	<ul style="list-style-type: none"> Sequence the steps in decision making and explain how the decision making model can be used for a variety of situations. Through literature studies, e.g., <i>Monster Mama</i> (conflict resolution), <i>First Grade Jitters</i> (stress/coping), <i>Albert the Running Bear Gets the Jitters</i> (stress), <i>Don't Pop your Cork on Mondays</i> (stress), simulated situations and classroom discussions, select and apply appropriate life management skills to solve or prevent problems. Record and monitor daily progress toward a personal health or fitness goal.

II. Health Maintenance and Enhancement

Middle school students are experiencing many developmental changes. They need opportunities to understand these changes and to assume responsibility for personal care, self-grooming and for making reasoned and informed decisions regarding health habits and behaviors. Content should focus on adolescent health concerns and strategies to effectively manage them. Adolescents are more interested and aware of the influence heredity and environment have on their development. As they begin to understand factors that affect their health or that of family members, they can be taught ways to manage health concerns or to enhance their own wellness. They should be encouraged to be physically active for health reasons as well as for pleasure and enjoyment.

Adolescents have greater opportunities to select and prepare food but often choose foods high in fat, sodium and calories. Adolescents need to understand the inter-relationships among total calories, food sources, energy expenditures and body composition, especially at a time when their bodies are changing rapidly. The selection of a variety of nutritious foods can influence their growth, development, health and ultimately the quality of life. The functions of nutrients as well as their sources and daily requirements are important concepts to be addressed. The effects food choices have on body composition and health should be studied as well as the dangers of eating disorders. Adolescents can examine how their food choices are influenced by family, emotions, peers and the media. During adolescence, health decisions are easily swayed by peers and the media. Students should investigate how advertising, fads and quackery affect their health choices and practices and should develop criteria for the selection or rejection of health information, products and services.

Positive peer relationships are very important during this grade span. Students should learn that although preadolescence and adolescence are frequently periods of emotional turmoil, various coping strategies can be used to deal with concerns or issues during this time. At this age it is appropriate to introduce the causes and effects of stress on one's health. Stress management techniques, realistic goal setting and coping skills should be taught. Adolescents need opportunities to practice conflict mediation, decision making and refusal/assertive skills.

A. Personal and Family Health

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p><i>By the end of grade 8, all students should know that</i></p> <ol style="list-style-type: none"> There are seven behaviors that if performed regularly can contribute to a healthy lifestyle. They include eating breakfast every day, refraining from smoking, sleeping six to eight hours each night, maintaining normal weight, exercising regularly, avoiding food between meals, and refraining from drinking alcoholic beverages. (HP 2, 5) 	<p><i>By the end of grade 8, all students should be able to</i></p> <ol style="list-style-type: none"> analyze the relationship between behaviors and health (1.7) assess personal health needs during adolescence and apply strategies to address those needs or problems (3.2; 3.3) 	<ul style="list-style-type: none"> Plan and produce a news documentary entitled "Lifestyles of the Healthy and Infamous" regarding behaviors that contribute to a healthy life, e.g., diet, recreation, exercise. Create a visual display of the potential fitness benefits of a variety of lifetime physical activities.
<p>HEALTH EDUCATION PHYSICAL EDUCATION</p>		

II. Health Maintenance and Enhancement

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>2. Rapid changes in physical, social, emotional and intellectual growth contribute to adolescent health concerns. Understanding and learning ways to manage these changes can ease the transition into adulthood. (HP 1, 2)</p> <p>3. Human growth and development is influenced by heredity, family and environment. (HP 1)</p>	<p>a. identify factors that can affect growth and development, differentiating between those they can or cannot changes, e.g., heredity, family, environment, physical activity, hormones and disease; examine ways to enhance or adapt the identified factors (4.7)</p> <p>a. identify ways in which one can alter, enhance or adapt to influences on growth and development (4.7)</p>	<ul style="list-style-type: none"> • Through research and study, develop a personal wellness plan that includes components of weight management, exercise, nutrition and rest. • Use a Teen Health Survey to assess current and future health status. Based on findings, recommend ways to enhance health and fitness. • Develop an adolescent health survival magazine including information regarding growth and development issues, peer pressure, etc.

II. Health Maintenance and Enhancement

B. Nutrition Principles and Practices

What All Students Should Know

By the end of grade 8, all students should know that

1. Fats provide the body with a stored form of energy, warmth and insulation for body organs. Carbohydrates provide the body with an immediate source of energy. Protein helps the body grow, makes muscles strong and repairs body tissues. Vitamins and minerals help to release energy and help the body perform many functions including fighting infections, making strong bones and teeth, etc. (HP 2, 3)
2. Nutrients are used by the body for energy, growth, repair, and cellular needs. (HP 1, 2)
3. The food pyramid is a graphic representation of daily nutrient needs and the food groupings that can provide them. (HP 2)

What All Students Should Be Able To Do

By the end of grade 8, all students should be able to

- a. conduct laboratory inquiries to determine the presence of fat, protein, starches and sugar in food samples (1.2; 1.4)
 - b. identify food sources that supply each of the essential nutrients (1.10)
-
- a. apply nutrition knowledge to compare the nutrient contribution of a food to its energy contribution (1.7)
 - b. describe the contribution specific nutrients make toward growth, repair and cellular needs of the body (1.16)
-
- a. organize foods into groups with similar nutrient composition. (1.5)

Sample Learning Activities

- Place in rank order food and food products that are most to least nutritious, e.g., fruit, popcorn, potato chips.
- Use starch iodine, Testape, paper bags, timer and a variety of foods to test for the presence of starch, sugar and fats. Predict, observe, record and summarize data, then draw conclusions regarding nutrient sources.
- Plan a party for teenagers that meets their growth and energy needs as well as food preferences.
- Produce a snack and simple meal considering adolescent nutritional needs and likes. Evaluate nutrient content based on the food pyramid and recommend nutritional needs for the rest of the day to meet the dietary requirements.
- Using the food guide pyramid, plan a grocery list for five sack lunches that reflect correct serving sizes from the different groupings.

II. Health Maintenance and Enhancement

25

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>4. Nutrient needs change as they grow. (HP 2)</p> <p>5. Balance, moderation and variety are important concepts to be considered when making food choices. (HP 2)</p> <p>6. Food choices are influenced by their culture, family, emotions and by peers and the media. (HP 2)</p> <p>7. Food choices and concerns regarding body image affect body composition and optimal health. (HP 2)</p> <p>8. Food labels can be analyzed to determine calories and nutrients in a product plus serving size, types of ingredients and nutritional value. (HP 2, 6)</p>	<p>a. select appropriate foods based on energy needs, food preferences, and nutrient requirements as represented on the food pyramid (4.7)</p> <p>a. make informed decisions regarding food choices based on an understanding of balance, moderation and variety (4.1)</p> <p>a. evaluate factors which influence food choices and their impact on nutrition and health (4.7)</p> <p>a. identify problems that can occur with body image during adolescence and formulate appropriate strategies to address this concern (3.1; 3.2)</p> <p>a. analyze food labeling information to determine calories, nutrients and serving size in a product (1.2)</p>	<ul style="list-style-type: none"> • From student-generated menus, select meals that reflect nutrient variety, and balance and then determine the appropriate serving size. • Brainstorm and discuss factors that influence food choices, e.g., family, personal food preferences, media, culture and geography. • Working in teams, debate the relationship of food choices and the media to appearance and body image. • Design a label for an imaginary food product and list ingredients as required by law—calories, grams of fat, etc.

II. Health Maintenance and Enhancement

C. Consumer Health

What All Students Should Know

- By the end of grade 8, all students should know that*
1. Consumers have the following rights to protect themselves from false health claims:
 - * right to safety,
 - * right to be informed,
 - * right to be heard,
 - * right to have problems corrected, and
 - * right to consumer education. (HP 6)
 2. Consumer issues including fads, quackery and advertising can influence health behaviors and practices. (HP 6)
 3. Advertising techniques influence consumer decisions. (HP 6)

What All Students Should Be Able To Do

- By the end of grade 8, all students should be able to*
- a. identify agencies that provide consumer protection service (1.9)
 - b. analyze consumer health issues and products to make wise decisions (1.10; 4.1)
-
- a. develop strategies to solve consumer health problems (3.2; 3.3)
-
- a. use critical-thinking skills to analyze marketing and advertising techniques (4.4)

Sample Learning Activities

- Create Public Service Announcements regarding the rights of a consumer and the government agencies and private organizations that help to protect those rights.
- Use technology to obtain current consumer health information and develop a brochure regarding their findings. Or given a situation of consumer fraud or quackery, use studied information to write a consumer complaint letter to the company.
- Critique advertising techniques and analyze their influence on consumer decisions regarding health-related purchases.
- Create an original health product to address a particular health problem, then design a marketing campaign to communicate the functional uses and cost benefits of the product, considering the targeted audience.

II. Health Maintenance and Enhancement

D. Life Management Skills

What All Students Should Know

- By the end of grade 8, all students should know that*
1. Life management skills such as stress management, goal setting, decision making, assertive behavior, resisting peer pressure, and conflict resolution can be applied to personal situations that adolescents encounter. (HP 2, 5)
 2. Health-related career opportunities exist in areas of education, primary prevention and tertiary care e.g., medical engineer, exercise physiologist, sports therapist, nurse, physician, dietitian. (HP 6)

What All Students Should Be Able To Do

- By the end of grade 8, all students should be able to*
- a. apply the decision-making process to adolescent health issues (4.1)
 - b. evaluate the process used in solving problems and verify whether the solution addresses the problem to which it was applied (3.4; 3.7)
 - c. distinguish between problems that can be solved independently and those that need the help of a peer, adult or professional (3.1)
 - d. apply peer pressure reversal techniques to reduce or resist negative peer pressure and aggressive behavior (3.2; 3.3)
 - e. apply stress management skills to reduce stress-related problems. (3.2, 3.3)
 - f. recognize conflict situations and apply conflict resolution/mediation strategies. (3.2, 3.3)
- a. explore career opportunities in the health-related profession and how these roles meet the needs of the health consumer (4.8)

Sample Learning Activities

- Role-play a scenario where frustration, anger, disappointment or grief was experienced. Identify ways the situation could have been avoided or handled differently, then discuss ways to relieve the stress of the negative feelings.
- Create a skit, rap, cartoon or song that utilizes refusal skill techniques to respond to negative peer pressure.
- Establish short- and long-term goals for a specific health issue and develop criteria for monitoring, e.g., improve muscular strength through fitness program, improve diet intake based on food pyramid guidelines.
- Practice solving different types of conflicts using effective communication and conflict mediation, e.g., parent/child, teacher/students, consumer/salesperson.
- Identify and discuss job responsibilities in health-related careers.
- Job shadow a health-related professional for 1 day.

II. Health Maintenance and Enhancement

Good health practices including an active lifestyle, self-assessment and self-care are important concepts to reinforce. As young adults continue to change through the human life cycle, they need to be cognizant that individuals in every stage of the cycle have unique needs, concerns and challenges. As students begin to contemplate their futures, the issues of relationships and sexuality become a concern. The importance of mature relationships, commitment and preparation for parenting become more relevant. Other than the first year of life, adolescence is the period of fastest growth. Adolescence is a time when one's lifestyle can be active, busy and stressful.

Good nutrition is important both to growth and to meet the energy needs for an active life. The ability to analyze nutritional information in diets, on food labels and in recipes will help students make sound nutritional choices and reject deceptive nutritional claims. Understanding the relationship between diet and exercise, nutrition and disease prevention can assist students in making good health decisions both now and throughout the life cycle.

Because students at this level are making many consumer decisions, they need opportunities to analyze health services, products and information, including costs and benefits as well as the influence of medical research and technology on consumer decisions.

Life management skills should address the changes experienced in a young adult's hectic life. Goal setting and decision making are important skills that will help students prepare for the challenges of adulthood. Students should be encouraged to develop effective coping strategies including discussing problems, examining the situation leading to a problem and seeking appropriate assistance. Life management skills such as goal setting, decision making, stress reduction and refusal techniques should continue to be practiced.

A. Personal and Family Health

28

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p><i>By the end of grade 12, all students should know that</i></p> <ol style="list-style-type: none"> 1. Different forms of exercise and physical activity provide health or skill-related benefits. (HP 4) 2. Health-related fitness components include body composition, muscular strength and endurance, flexibility and cardiovascular fitness. (HP 4) 3. Skill-related fitness components include power, speed, reaction time, balance, coordination and agility. (HP 4) 	<p><i>By the end of grade 12, all students should be able to</i></p> <ol style="list-style-type: none"> a. assess exercise programs and activities to determine if they meet the criteria for health-or skill-related fitness (1.2) a. design strategies for improving and monitoring health-related fitness (4.5) a. analyze factors, e.g., time, cost, accessibility, related to regular participation in physical activity (1.10; 4.7) 	<ul style="list-style-type: none"> • Plan and implement a fitness program including personal assessment, goals, cost, benefits and types of exercise, warm-ups, aerobic period and cool-down and evaluation of success. Incorporate fitness principles including frequency, intensity, time, overload and progression. • Design a brochure for health club members outlining recommended exercises that incorporate physiological concepts necessary for safe workouts. • Assess personal fitness using scales of performance, weight/height ratios, etc., and establish goals and a plan to implement a program that incorporates health-related fitness.
<p>HEALTH EDUCATION PHYSICAL EDUCATION</p>		

II. Health Maintenance and Enhancement

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>4. Regular exercise has both physiological and psychological benefits. (HP 4)</p> <p>5. Relationships contribute to social, physical, emotional and intellectual health. (HP 2)</p> <p>6. Individuals grow, change and adapt throughout the human life cycle. (HP 1, 2)</p> <p>7. Teen parenting and pregnancy should be examined from the personal, family and societal perspectives. (HP 5)</p> <p>8. Many factors must be considered in family planning, e.g., physical and emotional maturity, religious and cultural beliefs, risks and benefits of conception control. (HP 1, 5)</p>	<p>a. make reasoned and informed decisions regarding a personal fitness program (4.1)</p> <p>a. evaluate the factors that influence relationships and the impact that relationships have on self and others, e.g., friendships, dating, marriage (1.6)</p> <p>b. develop and discuss a list of characteristics that help to develop and foster positive long-term relationships (1.1)</p> <p>a. develop strategies to deal with health-related issues common to each stage of the human life cycle (3.5)</p> <p>a. analyze issues of teen pregnancy considering the physical, social and economic effect upon the adolescent and the family (3.1; 4.3)</p> <p>b. investigate and analyze the health risk to mother and baby of teenage pregnancy (3.2)</p> <p>a. evaluate how behaviors and prenatal care influence the health of the mother and the baby (1.6; 3.8; 4.7)</p> <p>b. evaluate information about methods of contraception including abstinence (1.6)</p>	<ul style="list-style-type: none"> • Invite a physician, nurse or exercise physiologist to discuss benefits versus costs of being active. • Brainstorm and discuss factors that are important in relationships, e.g., appearance, money, religion, sense of humor. Prioritize and compare traits most desired for a date and for a spouse. Analyze why priorities may be different and how they may change as one matures. • Independently or in groups, research different stages of the human life cycle, including pregnancy, infant, child, adolescent, young adult, adult, middle age and elderly. Include needs and health-related issues for each stage and strategies to address them. • Conduct a panel discussion with older parents, teen parents, social service organizations, pediatrician to examine the impact of teen pregnancy. Follow up with each student examining the effect a pregnancy would have on personal goals and family dynamics including an assessment of his/her own readiness for parenting in terms of time, cost, emotional maturity, educational plans, etc. • Invite guest speakers from March of Dimes, local health department, pediatrician, etc. to discuss the impact of behaviors on mother and baby. • Write a persuasive speech on why abstinence is the most effective choice of conception control for teenagers. Include a composition of other methods.

II. Health Maintenance and Enhancement

B. Nutrition Principles and Practices

What All Students Should Know

What All Students Should Be Able To Do

Sample Learning Activities

By the end of grade 12, all students should know that

1. Food can be analyzed to determine its nutritional content. (HP 2)
2. Key nutrients perform specific functions and influence body compositions. (HP 2)
3. A well-balanced diet that is low in fat, high in fiber, vitamins and minerals can reduce the risk of certain diseases. (HP 2, 3)
4. Factors that influence a safe food supply include regulatory agencies, food handling and production, food storage, techniques, pesticides, additives, etc. (HP 2)
5. There is a direct relationship between diet and exercise. A nutritional diet enhances fitness capability. To lose weight an individual needs to eat less and exercise more. (HP 2)

By the end of grade 12, all students should be able to

- a. use a variety of resources and technology to calculate and analyze the nutritional content of foods (3.1, 3.7)
- a. use technological tools and other resources to locate, select and organize information regarding the influence of nutrients on the body systems and body composition (1.4)
- a. explain the relationship between nutrients and disease prevention (2.2; 2.4)
- a. investigate and explain the factors that influence a safe food supply (1.10)
- a. plan a diet and fitness program based on the relationship between food intake and exercise in weight management and activity (4.5)

- Calculate the caloric and nutritional value of snacks, convenience and fast foods; interpret data and make recommendations for improvement.
- Students create a demonstration to teach others about the function and importance of their assigned nutrient, e.g., bags of flour to represent changing calcium needs, measuring amounts of fat in different foods. Use Popsicle sticks measured off in tenths to show percentage of fat in different.
- Use guest speakers, computer resources, professional journals to prepare presentations on the relationship between diet and diseases or disorders, e.g., obesity and eating disorders, high-fat diet and colon cancer, anorexia and body image.
- Divide into cooperative groups to research and report on food safety factors, e.g., government regulations, agencies, food handling, food-borne illnesses.
- Critique diet plans and exercise programs to see if they meet the criteria for safe and effective weight management and physical performance.

II. Health Maintenance and Enhancement

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>6. Nutrient needs change throughout the life cycle. (HP 2)</p> <p>7. Dietary choices can be influenced by their culture, lifestyle, media and advertising. (HP 2, 6)</p> <p>8. Food labels can be analyzed to determine the nutrient quality of the food and to make wise food choices. (HP 2, 6)</p>	<p>a. assess how nutritional needs change throughout the life cycle (1.6)</p> <p>a. analyze the factors that influence dietary choices including life style, ethnicity, family, media and advertising (4.7)</p> <p>a. analyze food labels to interpret the nutrient information (1.2)</p>	<ul style="list-style-type: none"> • Compare and contrast the nutrient needs for individuals at different stages of the life cycle, e.g., toddler, young adult. • Survey a random sampling of high school students to determine their 3-day food intake. Analyze food intake to determine if the number of servings per food group was met, what nutrients were lacking or in excess and through interviews determine what influenced dietary choices. Report findings in school newsletter and make realistic recommendations to address areas of concern. • For homework assign student to analyze label information from a variety of food products to interpret percent of fat, types of additives, percent of daily value. Based on findings, select most nutritious product from each food pyramid category.

II. Health Maintenance and Enhancement

C. Consumer Health

What All Students Should Know

- By the end of grade 12, all students should know that*
1. An informed consumer knows how to analyze health information, services and products to remain current with technological advances that could affect consumer decisions. (HP 6)
 2. The media can influence a consumer's perception of body image and can affect health decisions. (HP 6)
 3. Some advertising is designed to appeal to the emotions of consumers and may contribute to unhealthy behaviors. (HP 6)

What All Students Should Be Able To Do

- By the end of grade 12, all students should be able to*
- a. make informed health decisions by analyzing health information from a variety of resources (1.3; 4.1)
 - b. evaluate the reliability of health services, products and information (1.6)
 - a. evaluate the idealized body image and elite performance levels portrayed by the media and determine the influence on a young adult's self concept, goal setting and health decisions (1.6; 4.7)
 - a. analyze health claims made by the media to determine their impact on personal and family health (1.1)

Sample Learning Activities

- Evaluate health-care issues including services, insurance, care plans to determine options available for consumers and criteria to be addressed in selection (e.g. What should a consumer look for to get a reputable mammogram?). Given typical health-care problems, develop questions to ask a physician to make informed and responsible health decisions.
- Write a letter to a company describing a health-related consumer problem and outline expectations for resolving the consumer difficulty.
- Present an informational forum by having students assume roles of consumer protection agencies. Other students then have an opportunity to ask questions regarding consumer rights, etc.
- Develop "quack buster" teams to evaluate fitness and health-related products to determine credibility and effectiveness (e.g., spot reducing, gut busters, cellulite dissolvers) Support or reject, based on student lab inquiries and research, that the product represents a potential type of quackery.
- Using knowledge learned about the validity and credibility of fad diets, create an "Eat up the Facts About Diets" brochure or bulletin board display that dispels diet myths.
- Create a display or video promoting a health related issue for use with younger audiences.

D. Life Management Skills

What All Students Should Know

What All Students Should Be Able To Do

Sample Learning Activities

By the end of grade 12, all students should know that

1. Life management skills can help young adults in planning for their future and addressing personal and social concerns that are part of daily living such as learning to manage time and stress, deal with conflicts, work collaboratively, make reasoned and informed decisions and set goals. (HP 2)

2. Opportunities to explore health/fitness careers can help students determine interests, opportunity and academic preparation necessary for these careers. (HP 6)

By the end of grade 12, all students should be able to

- a. identify common stressors and develop strategies to address the stressor; then evaluate the extent to which the strategy was effective (3.1; 3.2; 3.7)
- b. identify and apply practices that preserve and enhance the safety and health of others (4.7)

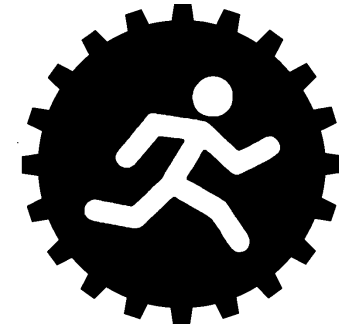
- a. explore, prepare and seek educational and job opportunities (4.8)

- Select and implement a stress management technique, e.g., playing piano, exercise, organizational skills; monitor progress and report as needed.
- Identify situations that are anger inducing and discuss one's physical and emotional responses to anger. Given a potential anger-inducing scenario, describe nonviolent ways to deescalate or resolve the conflict.

- Shadow a professional, investigate career requirements, apply the decision-making process to plan for goal attainment.

III. RISK ASSESSMENT AND REDUCTION

- A. Disease Prevention and Control
- B. Injury Prevention and Safety
- C. Tobacco, Alcohol and Other Drugs (TAOD)
- D. Environmental Health



K-12 Content Overview

In order to lead healthy, active lives, individuals need to know how to assess and reduce their risks and to assume responsibility for their health and safety. Beyond accumulating facts and information, students need to use problem-solving and decision-making skills that will help them assess their own risks and to respond in health-enhancing ways when confronted with challenges to their health and safety. Therefore, the curriculum should provide students with opportunities to study accurate information about health threats and to explore risk reduction strategies in the areas of disease prevention and control, injury prevention and safety, tobacco, alcohol and other drug use (TAOD) and environmental health hazards.

In order to assess their health hazards and to practice risk reduction, students need an understanding of personal, social and environmental risks that reduce the ability to lead healthy, productive lives. Threats to health include uncontrollable risk factors such as heredity, age, race and gender. Risks that are a result of lifestyle decisions include smoking, lack of regular exercise, substance abuse, high fat, low fiber diets, etc.

Social risks include situations that promote conflicts and violence or safety issues involving strangers and potential danger.

One's immediate and global environment also can pose risks to present or long-term health. Individuals need an understanding of potential environmental health hazards so they can take an active role in environmental health protection both for themselves and for future generations.

III. Risk Assessment and Reduction

The curriculum should emphasize how behaviors can help prevent disease or reduce its influence. Students should be able to differentiate between communicable and non-communicable diseases. They should explore the causes of communicable diseases and their methods of transmissions. They should begin to understand that the risk of developing chronic diseases is influenced not only by their behavior but also by environmental conditions and genetic predisposition. Students should also explore how their behavior can help them recover from disease.

Students should recognize the potential for danger in everyday situations and behave in ways that help protect their own safety and well-being. They should be able to describe the characteristics of a safe environment.

To reduce the risk of tobacco, alcohol and other drug use (TAOD) , students should learn about the negative impact chemical substances have on health. They should be able to differentiate between helpful and potentially harmful substances and identify ways to seek assistance when confronted with situations involving TAOD. The reason for taking medicines properly and only under the supervision of responsible adults should be emphasized.

Students should learn about health hazards resulting from the environment including an introduction to the main causes, i.e., air, water, excessive noise, and exposure to sun. They should begin to examine community agencies, laws and regulations designed to promote community and environmental health, e.g., city water testing, animal control.

Experiences within the school setting should provide opportunities to assess their risk factors and learn successful risk reduction strategies.

A. Disease Prevention and Control

35

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p><i>By the end of grade 4, all students should know that</i></p> <ol style="list-style-type: none"> 1. Diseases can be categorized as communicable (transmitted to humans through some vehicle, e.g., person, air, water, insect) or non-communicable (not passed from person to person, e.g. cancer, heart disease). (HP 3) 	<p><i>By the end of grade 4, all students should be able to</i></p> <ol style="list-style-type: none"> a. organize information about basic diseases into communicable and non-communicable and describe the difference between the two (1.5) b. identify and describe basic causes, symptoms, treatments and management of common communicable diseases and health problems (1.5; 1.10; 4.7) 	<ul style="list-style-type: none"> • Develop a classroom booklet of illustrations regarding communicable and non-communicable diseases. Flip the book one way and read each student’s thoughts, poems, or illustrations aboutt communicable diseases. Flip the book the other way to read about non-communicable diseases. • Read primary trade books about disease, e.g. <i>Mean Nasty Invisible Germs, Germs Make Me Sick</i>. Then create an illustration that helps to summarize main points.
<p>HEALTH EDUCATION PHYSICAL EDUCATION</p>		

III. Risk Assessment and Reduction

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>2. The body has ways to defend its self against disease. (HP 1)</p> <p>3. There are certain conditions and behaviors that enhance both the growth and spread of germs.</p> <p>4. There are health behaviors and practices that can speed recovery, reduce diseases and prevent illness. Behaviors include good handwashing, covering mouth when sneezing, adequate rest, drinking plenty of fluids during illness, keeping immunizations up-to-date. (HP 2, 3)</p> <p>5. Early intervention and health practices can help to manage ,reduce their risk or prevent non-communicable diseases.</p>	<p>a. identify the body’s basic lines of defense, including skin, hairs in nasal passage, bronchi, stomach acid and white blood cells. (1.5)</p> <p>a. draw conclusions about factors necessary for germs to grow (1.2)</p> <p>a. identify and apply practices that reduce their risk of communicable diseases and speed recovery from illness. (3.1;3.2;4.7)</p> <p>a. determine cause and effect relationship between health behaviors and diseases on illness. (1.6)</p>	<ul style="list-style-type: none"> • Plan, design and develop a role-play simulation regarding disease transmission and the body’s basic lines of defense, e.g., one student is a cold virus, others play roles of skin, mucuous, white blood cells. • Conduct a laboratory inquiry by determining the effect of light, warmth, and moisture on the growth of mold on bread. Use one piece of bread as the control. Make inferences about the variable and conditions necessary for germ growth. • Demonstrate disease transmission by using a water bottle to simulate a sneeze. Show how a tissue decreases the mist from spreading. Create illustrations using the hands on tissue over face. • Designate a classroom detective to observe practices that reduce disease transmission, e.g., covering mouth when coughing, handwashing before eating, keeping objects out of mouth. Summarize data and make class awards based on findings. • Design a Disease Flip Card Game to show cause and effect relationships, e.g., smoking and lung cancer, lack of exercise and heart disease, sun exposure and skin cancer. Summarize how early intervention and health behaviors can lead to successful management of chronic diseases such as asthma, arthritis, cancer.

III. Risk Assessment and Reduction

B. Injury Prevention and Control

What All Students Should Know

- By the end of grade 4, all students should know that*
1. There are observable conditions in a safe home, school or neighborhood environment. (HP 5)
 2. There are ways to assess their environment and to recognize the potential for danger in everyday situations, e.g., not wearing a seat belt, too many plugs in one outlet, telling a caller that parents are not home. (HP 5)
 3. Basic first-aid procedures and decision making skills can help to protect their safety and well-being, e.g., never taking another individual's medicine, running cool water over a first-degree burn. (HP 2, 7)
 4. Individuals can reach emergency assistance by knowing the appropriate number to call (911 in most areas) and including pertinent information (who, what, where, how many, ask for assistance and hang up last). (HP 7)

What All Students Should Be Able To Do

- By the end of grade 4, all students should be able to*
- a. identify actions that are risky or harmful because of their effect upon self and others (4.3; 4.7)
 - a. identify potential risks in daily living and apply basic health and safety measures (4.7)
 - a. demonstrate basic first-aid procedures for handling childhood injuries, e.g., cuts, scrapes, first-degree burns (1.10)
 - a. select and apply first-aid procedures to solve problems related to simple injuries, choking and weather emergencies, e.g., where to go in a storm; verify whether a first aid solution addresses the problem to which it was applied (3.1; 3.2; 3.7)
 - b. recognize problems in daily living situations that may require emergency assistance and select appropriate resources, including 911 call to solve the problem (3.2; 3.7)

Sample Learning Activities

- Develop a safety checklist that includes strategies to prevent injuries at home, school or in the community. Use the checklist to make informed and responsible decisions regarding the improvement of safety conditions in students' surroundings.
- Given a scenario or illustration, select and apply appropriate safe living strategies to prevent potential emergency problems (e.g., water, electrical, fire, stranger and weather-related emergencies).
- Create "Risky Business" posters for use in school hallways that describe human actions and are risky or harmful to self and others.
- Conduct egg drop experiment to reinforce the importance of wearing helmets. Invite police officers or safety patrol member to discuss and demonstrate bike hand signals and safety guidelines.
- Compile a list of childhood injuries you had or have knowledge of, then determine the causes of injuries and determine if a cause and effect relationship exists between risky behaviors and incidence of injuries.
- Assess whether a situation is threatening and role-play appropriate procedures for getting assistance including the information necessary to make a 911 call, e.g., who, what, when, where.
- Survey the number of students who wear bicycle helmets. Interpret reasons given why helmets are not being worn and create responses, both oral and illustrative, that communicate the importance of safety.

III. Risk Assessment and Reduction

C. Tobacco, Alcohol and Other Drugs (TAOD)

38

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p><i>By the end of grade 4, all students should know that</i></p> <ol style="list-style-type: none"> 1. There are safe and unsafe substances that can be placed in the mouth. (HP 5) 2. Medicines are used to treat an illness or to prevent health problems. Medicines should be taken under the supervision of an adult according to recommended guidelines. (HP 5) 3. Tobacco, alcohol and other drugs (TAOD) can have dangerous effects on the body. (HP 5) 4. Tobacco contains nicotine which is an addictive drug. Smoking can affect not only the smoker but others exposed to second-hand smoke. (HP 5) 	<p><i>By the end of grade 4, all students should be able to</i></p> <ol style="list-style-type: none"> a. identify substances that are safe and unsafe to be taken orally (1.10; 4.7) a. identify the purpose of medicines and how they can be used safely. (1.10; 4.7) a. describe how TAOD can affect body systems. (2.1, 2.4, 3.5, 4.1) a. describe the effects of smoking including second-hand smoke. (2.1, 2.4, 3.5, 4.1) 	<ul style="list-style-type: none"> • After categorizing substances that are safe and those that are unsafe, use a smiley face or a Mr. Yuk picture to appropriately identify the substances. • Draw pictures of a reason for using medicines and correct and safe usage of medicines, given by an adult, given correct dosage at the correct time, etc. • With classmates, select different body systems to role-play cause and effect relationships, e.g., lungs describe the effects of smoking on them, brain and liver-alcohol effects. • Design a smoking machine using a 2-liter bottle, cotton balls and squeeze bottle to conduct an experiment on the effects of smoking. From the results, summarize if tobacco companies are protecting smokers through the use of filters. • Read the book <i>Cigarette, Cigarette</i>, then develop warning labels based on an understanding of the effects of smoking. • Calculate the money an individual could save in year if he/she quit smoking after being a pack-a-day smoker.

III. Risk Assessment and Reduction

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>5. Many factors e.g., media, peers, self-concepts, etc. influence decisions to use or abuse substances. (HP 5, 6)</p> <p>NOTE: TAOD prevention involves more than the study of drugs and their effects on the body. Factors such as positive self-concept, family support, peer relationships, learning how to make good decisions, etc., are all important in drug prevention. These concepts are included in Social Systems and in Life Management Skills in this framework.</p>	<p>a. evaluate how the media and other factors may influence one’s perspective. (1.7)</p> <p>b. describe how healthy relationships with friends and families and a positive self-concept can affect an individual’s ability to resist tobacco, alcohol and other drug use (2.1)</p>	<ul style="list-style-type: none"> • Gather tobacco and alcohol information from advertisements, commercials and movies to determine what type of message is being portrayed, Reverse the message to include the real effects of tobacco, alcohol and other drug use. • Write an essay or draw an illustration explaining why TAOD is “not for me.”

D. Environmental Health

<p><i>By the end of grade 4, all students should know that</i></p> <ol style="list-style-type: none"> 1. Air, land and water pollution plus exposure to sun and loud noises can affect their health. (SC 4) 2. There are laws, regulations and community agencies that are designed to promote and protect community and environmental health. (SC 8) 3. Individual actions can do much to help preserve the environment and promote environmental health. (SC 4) 	<p><i>By the end of grade 4, all students should be able to</i></p> <ol style="list-style-type: none"> a. identify actual or potential risk factors within the home, school and community environment that can affect one’s health; then establish goals and a plan to reduce personal risks, e.g. wearing sunscreen, keeping food refrigerated, having parent change furnace filter (3.1; 4.5) a. examine a common environmental problem, then discuss the effort made by individual agencies or the government to reduce or to prevent the problem (3.1; 3.7) 	<ul style="list-style-type: none"> • Observe for one week the school playground, home environment or route to school for potential environmental health concerns. Brainstorm solutions or recommendations to solve the problem. • Based on studies from environmental groups, e.g. Department of Health, Department of Sanitation, determine services available for the community, e.g. water testing for public consumption and public swimming, flu vaccines. • Create a landfill, using an old aquarium, to observe whether classroom trash decomposes. • Read <i>Just a Dream</i>, then have a recycle relay race to categorize products that can be recycled or disposed of.
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III. Risk Assessment and Reduction

Because students at this grade span are becoming more independent and are more prone to risk-taking behaviors, they need to know that most potentially dangerous situations can be avoided or handled through proper assessment and risk reduction practices. Students at this level should be given opportunities to analyze their own and others' behaviors and to formulate strategies for dealing with the health and safety situations they might confront.

Students at this level should be encouraged to take responsibility for the treatment and prevention of diseases. In order to do this, they need to learn the symptoms of common diseases among youth and the importance of early diagnosis and treatment, including self-treatment and management. In addition, they should learn when to seek qualified medical help. The curriculum should focus on the importance of following prescribed health-care procedures and cooperating with parents and health-care providers to facilitate recovery.

Students should learn about and demonstrate their understanding of safety guidelines and equipment (e.g., helmets, seat belts, knee pads) and of emergency procedures (i.e., basic first aid) including the Heimlich Maneuver.

The use of tobacco, alcohol and other drugs (TAOD) frequently plays a role in the dangerous behaviors of adolescents and adults. Students should understand the effects of using these substances on the individual, on families, communities and society. The curriculum also should include guidelines for the use of over-the-counter and prescription drugs. Because middle school students may have an increased sensitivity to peer influences and pressures, they need opportunities to identify and enhance behaviors that will help prepare them for the situations they might encounter.

Students need to know that a number of health conditions are either caused or exacerbated by environmental factors, e.g., asthma and other lung ailments due to air pollutants; skin cancer from unprotected exposure to the sun; intestinal disorders from polluted water; and allergens from pollens, dust, or animal dander. Additionally, environmental teratogens, both naturally occurring and synthetic, can cause birth defects and developmental disabilities.

A. Disease Prevention and Control

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p><i>By the end of grade 8, all students should know that</i></p> <ol style="list-style-type: none"> Communicable diseases are caused by pathogens including bacteria, virus, fungi and parasites. Communicable diseases include colds, influenza, strep throat, HIV/AIDS, athlete's foot, ring worm, etc. (HP 3) Communicable diseases are transmitted through direct and indirect contact, water, air, vector or animal. (HP 3) 	<p><i>By the end of grade 8, all students should be able to</i></p> <ol style="list-style-type: none"> use a variety of resources to compile information regarding the cause, transmission, treatment and prevention of communicable diseases, e.g., HIV/AIDS, mononucleosis, etc. (1.4; 1.8) develop questions and ideas to determine optimal conditions for growth of organisms (1.1) 	<ul style="list-style-type: none"> Create a communicable disease story that includes negative health behaviors, symptoms, and transmission of the disease. Prepare and present oral reports to the class, identifying how health behaviors in the story contributed to disease development. Based on an understanding of communicable diseases, make treatment and prevention recommendations. Survey class regarding the incidence of common communicable diseases. Use the information for discussion and comparison of causes, symptoms and treatment. Summarize commonalities and evaluate if patterns exist. Conduct an experiment using petri dishes for growth of organisms. Plan variables and control, then observe and summarize results.
<p>HEALTH EDUCATION PHYSICAL EDUCATION</p>		

III. Risk Assessment and Reduction

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>3. The body has several lines of defenses against communicable diseases. How the body defends itself is evident through the stages of disease progression. (HP 3)</p> <p>4. Non-communicable diseases are caused by heredity, lifestyle factors, autoimmune system problems and unknown reasons. Non-communicable diseases include heart disease, cancer, leukemia, arthritis, hyper-tension, multiple sclerosis, etc. (HP 1, 3)</p> <p>5. Non-communicable diseases can impact on adolescents' physical, social, emotional growth, necessitating adaptation, understanding and management of the problem. (HP 1, 3)</p> <p>6. Learning the symptoms and causes of adolescent health problems can facilitate early diagnosis and treatment including self-care and management. (HP 1, 3)</p>	<p>a. outline the body's lines of defenses and the stages of disease progression including incubation, acute, recovery and relapse (1.8)</p> <p>a. locate, select and organize information about non-communicable diseases, focusing on adolescence, e.g., diabetes, asthma, joint disease, cancer, mental disorder (1.4)</p> <p>b. differentiate between communicable and non-communicable diseases, their causative factors, symptoms, treatment and potential prevention measures (1.6)</p> <p>a. access non-communicable diseases prevalent in adolescents, e.g., asthma, diabetes, then analyze the impact they could have on adolescent physical, social and emotional development (1.7; 3.1; 3.8)</p> <p>a. recognize adolescent health concerns and select appropriate strategies to solve or prevent problems, e.g. anorexia, bulimia, acne, scoliosis (3.1; 3.2; 3.3)</p>	<ul style="list-style-type: none"> Given information on several communicable diseases, sequence the stages of disease progression. Select one disease and designate roles to discuss the jobs of the body's defense team, e.g., skin, tears, etc. Prepare reports on genetic disorders such as cystic fibrosis, hemophilia, sickle cell anemia, and Tay -Sachs disease, then evaluate if there is any known cause, e.g., ethnicity, age of parents, for the disorders. Using "Grab a Disease Bags," apply knowledge learned about disease (causative factors) body's responses (treatment and management) to study a non-communicable disease occurring in adolescence. Analyze how one's life would be different with the disease and what modifications would be needed in daily living. Develop a Teen Health Magazine for school including reports for others to read. Assess and evaluate personal eating habits and their relationship to health risk reduction (e.g., low-fat diet reduces risk of heart disease and colon cancer). Establish nutrition goals and a plan of action to improve food selections.

III. Risk Assessment and Reduction

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>7. Health behaviors practiced during adolescence can reduce the risk of disease formation or transmission. (HP 3, 5)</p> <p>8. Public health agencies and government health departments help to reduce, control, monitor or prevent disease through research, education and enforcement of laws. (HP 3)</p>	<p>a. identify health behaviors and practices that can reduce disease risks, considering their short and long term effects on human health, e.g., stress management, exercise, low fat diet, avoiding congested malls during flu outbreaks (1.6; 3.1; 4.7)</p> <p>a. analyze how the Department of Health, the Centers for Disease Control and other public health agencies affect individuals and communities in disease reduction, control, or prevention, e.g., food inspection, safe storage and handling, flu vaccines, education, no smoking ordinances (1.9)</p>	<ul style="list-style-type: none"> • Develop a Risky Business Health Page for school or computer “Home Page” describing behaviors that can reduce risk of communicable and non-communicable disease. • Use multimedia to create and implement an advertising campaign showing healthy behaviors that can help to prevent heart disease, cancer and stroke. • Brainstorm a list of the causes, modes of transmission, treatment and prevention of common childhood diseases. Role-play a Center for Disease Control panel to discuss findings. Include the role of public health agencies.

B. Injury Prevention and Safety

43

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p><i>By the end of grade 8, all students should know that</i></p> <ol style="list-style-type: none"> 1. There are ways to assess potential unsafe situations in their physical and social environment. (HP 5) 2. Sports-related injuries can be reduced or avoided through the use of appropriate safety equipment and first aid guidelines. (HP 2) 3. Basic first-aid techniques can help to save lives, reduce the severity of an injury and enhance recovery. (HP 7) 	<p><i>By the end of grade 8, all students should be able to</i></p> <ol style="list-style-type: none"> a. assess home and school environment for potential unsafe situations and recommend corrective action (3.1; 4.5; 4.7) b. recognize problems in daily living that may contribute to self destructive behaviors and apply strategies to reduce the risks of harm to self and to others (3.2; 3.6) a. use information about weather safety and exercise precautions to make informed and reasoned decisions to reduce the risk of injury during exercise and sports (1.10; 4.1) a. prioritize and demonstrate the steps involved in assessing an emergency situation, including the 911 call format. Analyze why the processes are used in a sequential order, e.g., ABC of emergencies (3.4; 4.7) b. demonstrate the Heimlich Maneuver and rescue breathing, and other basic first-aid procedures (4.7) 	<ul style="list-style-type: none"> • Brainstorm a list of potential social problems, e.g., boyfriend / girlfriend disagreements. Demonstrate conflict mediation / resolution techniques and discuss ways to seek a safe environment to avoid harm to themselves and others. • Given a sample fitness plan, select appropriate exercise and safety measures. Create a personal safe exercise plan that includes selecting appropriate clothing and equipment, e.g., bicycle helmet, knee and elbow pads for skating. • Demonstrate through role play the steps included in assessing an emergency situation, including ABC assessment and 911 format. • Given a scenario involving common emergency situations, bleeding, fractures, sprains, burns, choking, heart attack, etc., assess and respond appropriately to the situation.

III. Risk Assessment and Reduction

C. Tobacco, Alcohol and Other Drugs (TAOD)

What All Students Should Know

- By the end of grade 8, all students should know that*
1. The ways in which a drug affects the body are determined by the nature of the drug, how it enters the body and how it interacts with the body chemistry. (HP 1, 5)
 2. TAOD can affect the healthy functioning of the nervous and reproductive systems as well as other systems previously studied. (HP 1, HP 5)
 3. The use of TAOD imposes personal health risks as well as family and societal problems. (HP 5)
 4. Both smoked and smokeless forms of tobacco can cause serious health problems. (HP 5)
 5. There are guidelines and precautions for the use of over-the-counter and prescription drugs. (HP 5)

What All Students Should Be Able To Do

- By the end of grade 8, all students should be able to*
- a. differentiate among the effects of drugs on the body based on their classification, e.g., stimulant, depressant, hallucinogen, narcotic. Categorize into illegal or legal. (3.5; 4.7)
 - a. evaluate information regarding body functions and the use of TAOD to determine a cause and effect relationship, e.g., alcohol and impaired judgment, marijuana and short term memory loss, smoking and low birth weight babies (1.6; 1.7)
 - a. present different opinions and arguments about the effects of TAOD on the individual and others (2.3)
 - a. make informed decisions regarding the use of tobacco based on knowledge of short and long term effects on the body, and effects on both the individual and society (4.1)
 - a. Differentiate between over the counter and prescription drugs, their purpose, precautions and guidelines for use (3.5; 4.7)

Sample Learning Activities

- Given a list of common legal and illegal drugs, differentiate between the two categories, then classify based on effects on the body, e.g., cocaine-stimulant-effects, alcohol-depressant-effects, marijuana, LSD-hallucinogens-effects.
- Create 1-minute Public Service Announcements to inform students and parents of findings regarding the relationship between TAOD and body system dysfunctions.
- After viewing a video such as “The Feminine Mistake,” invite a counselor or community agency worker to discuss effects of tobacco, alcohol and other drug use on your family and society.
- Given a scenario regarding an unsupervised social event, identify and analyze potential risks in that situation.
- Interview a doctor, nurse or dentist regarding effects of smokeless or smoked tobacco on individuals, especially young people. Present findings to the class.
- Develop over-the-counter and prescription drug guidelines to be posted in a home medicine cabinet or shelf.

III. Risk Assessment and Reduction

45

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>6. Peers can have both a positive and negative influence on one's decisions regarding TAOD use. (HP 2, HP 5)</p> <p>7. Adolescents can find many healthy alternatives to tobacco, alcohol and other drug use. (HP 5)</p> <p>(NOTE: TAOD prevention involves more than the study of drugs and their effects on the body. Factors such as positive self-concept, family support, peer relationships, learning how to make good decisions, are all important in drug prevention. These concepts are included in Social Systems and in Life Management Skills in this Framework.)</p>	<p>a. compare peer pressure to peer support and evaluate how each influences the making of informed and reasoned decisions regarding TAOD use. (1.1; 3.6)</p> <p>a. Plan strategies to resist pressures both from self and others to use TAOD. (3.2; 3.3; 3.7)</p>	<ul style="list-style-type: none"> • Assume the role of a doctor or pharmacist and describe to a partner the difference between prescription and over-the-counter drugs and guidelines for their use. Then assess partner's understanding by giving a list of scenarios regarding the use of prescription and over-the-counter drugs, e.g. "I'm feeling better, I don't need this medicine anymore." Partners should choose correct responses based on an understanding of prescription and over-the-counter use and guidelines. • Through given situations, identify problems related to peer pressure and the use of TAOD. Turn the peer pressure into peer support, then evaluate the peer pressure reversal techniques used. • During a class panel discussion, discuss the types of peer pressure experienced during adolescence. Rest of class selects appropriate measures to handle the pressures and evaluates the processes used in handling the problem • Work as individuals and collaborate with others to propose healthy alternatives to the use of tobacco, alcohol and other drugs • Given a scenario regarding an unsupervised social event, identify and analyze potential risks in situations and brainstorm a list of healthy alternatives.

III. Risk Assessment and Reduction

D. Environmental Health

What All Students Should Know

- By the end of grade 8, all students should know that*
1. The environment impacts their health and can cause or exacerbate specific conditions such as asthma, skin cancer, hearing loss. (HP 3)
 2. Overpopulation, overuse of resources and pollution can damage the environment and disrupt ecosystems. (SC 4)
 3. Individuals and communities have the responsibility to protect and improve the environment in which they live. (SC 4)

What All Students Should Be Able To Do

- By the end of grade 8, all students should be able to*
- a. recognize existing and potential environmental health problems within their community and address these problems through creative solutions and health advocacy (3.1; 3.2; 3.3)
 - a. evaluate the potential results of an environmental solution considering such issues as aesthetics, ethics, and societal responsibility (3.6; 3.7; 4.3)
 - a. work as individuals and collaborate with others to safeguard the health of the environment (recycling, reducing waste, reusing items, etc.) (4.7)

Sample Learning Activities

- Research a specific disease caused by environmental factors, e.g., skin or lung cancer, and report findings to the class.
- Collect and weigh the amount of trash around the school to predict the long-term effects of land pollution on human health. Assess neighborhoods for other environmental hazards including noise, air pollution, water contamination, etc.
- Given an environmental problem such as air pollution from power plants, examine the issue from the perspective of the power plant, the EPA, the neighborhood association around the power plant, the people who buy the electricity, etc.
- Develop a school Environmental Safety Patrol that examines potential environmental risks in your school environment and make recommendations to improve them, including recycling, etc.
- Conduct a study regarding the purchasing habits of families in the class. Then study the biodegradable status of a buried potato, paper container, plastic bottle and an aluminum can at regular intervals. Present and display findings. Then make recommendations based on findings.

Students at this level are cognitively and socially capable of exploring disease issues and prevention strategies in more depth. As students mature and become involved in dating relationships, emphasis should be given to the prevention of sexually transmitted diseases including HIV / AIDS. Students should be given the opportunity to compare the effectiveness of abstinence over other methods of sexually transmitted disease prevention. They should become fully informed about assessing their own health, knowing when to seek help and how to communicate symptoms to a health care provider. The influence of one’s family or culture on disease treatment should also be explored.

Because most students begin driving during this period, safety issues related to drinking and driving, wearing seat belts, etc. should be emphasized. Students also should evaluate potential hazards in the community and how to reduce risks for self and others. As they become more responsible, contributing members of a community, they should be encouraged to participate in activities that promote neighborhood safety.

Students are experiencing more independence at this age. As they become more responsible for their own decisions, they are faced with internal and external pressures to use chemical substances. They need opportunities to examine in more depth the immediate and long-term effects associated with tobacco, alcohol and other drugs including those that alter performance, e.g., steroids. Instruction should include information on laws, school policies and community ordinances governing the use of chemical substances. The effects of tobacco, alcohol and drugs on driving ability, other physical tasks and judgments need to be emphasized. In order to make good decisions, students need opportunities to continue practicing refusal skills and healthy responses to high-risk situations.

Because environmental conditions can affect one’s health, students should be able to recognize potentially harmful environmental situations and demonstrate ways to protect themselves. Assessment and risk reduction at this level also includes the ability to assume the role of a health advocate and educate others about harmful health issues.

A. Disease Prevention and Control

47

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p><i>By the end of grade 12, all students should know that</i></p> <ol style="list-style-type: none"> Most communicable diseases have specific modes of transmission, require appropriate conditions for growth in the host, have an incubation period and respond in specific ways to current treatment methods. (HP 5) HIV / AIDS has personal, social and economic effects. (HP 5) 	<p><i>By the end of grade 12, all students should be able to</i></p> <ol style="list-style-type: none"> analyze information about the transmission and prevention of communicable disease to formulate and support a thesis or interpretation regarding the reoccurrence of resistant strains of pathogens (1.1; 1.2) evaluate how HIV / AIDS affects an individual’s personal, social and economic well-being (3.1) 	<ul style="list-style-type: none"> Given scenarios of signs and symptoms and/or types of disease, determine potential causes, need for medical treatment and ways to manage the illness or speed recovery. Create responses to mock letters from students regarding problems associated with HIV / AIDS. Include information about how the disease could have been contracted, the treatments that are available, the short-term and long-term outcomes and possible changes required in his/her lifestyle.

III. Risk Assessment and Reduction

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>3. Sexually transmitted diseases (STDs) have signs and symptoms that indicate abnormalities with the reproductive system. Some STDs have few signs and symptoms until the disease has progressed. (HP 5)</p> <p>4. STDs can cause permanent complications, not only for the reproductive system, but also other systems of the body. (HP 1, 3)</p> <p>5. Abstinence is the best method for preventing STDs and teen pregnancy. Other forms of contraception have varying degrees of effectiveness and side effects. (HP5)</p> <p>6. Self examination (breast in women, testicles in men) and being aware of cancer signs and symptoms aid in early detection and treatment. (HP 1, 5)</p> <p>7. Routine physical examinations and tests, e.g., Pap smears, mammograms, are also important practices to reduce their risk of problems related to cancer and other chronic diseases. (HP 5)</p>	<p>a. evaluate (STDs) to determine patterns of transmission, relationship between causative agent, treatment options and perspectives regarding past and present ways to treat and/or prevent them (1.2; 1.6)</p> <p>a. using different technological tools, develop a comparison chart including effectiveness, side effects, complications, and social considerations of various methods of contraceptives (1.8; 2.7)</p> <p>b. make reasoned and informed decisions regarding the benefits of abstinence by evaluating information on contraception to determine effectiveness, side effects and potential complications (1.7; 4.1)</p> <p>a. select and apply self-assessment techniques to improve early detection of diseases and treatment options, including self breast examinations, testicular exams and Pap tests (1.10; 4.7)</p> <p>a. assess costs, benefits and consequences associated with self-examination (3.8)</p>	<ul style="list-style-type: none"> • Choose a specific STD: HIV / AIDS, gonorrhea, syphilis, etc. Write a paper about the signs and symptoms, transmission, treatment and societal, personal and economic impact. • Debate the use of contraceptives for preventing HIV / AIDS / STDs and pregnancy, considering the cost, side-effects, convenience and effectiveness as well as moral issues. • Use breast and testicular cancer models learn about self-assessment. Research family incidence of cancer in class, and compare to national data. Evaluate which cancers seem most prevalent and make recommendations for reducing the numbers based on findings. • Invite a physician, nurse or American Cancer volunteer to talk to class about benefits of self examinations.

III. Risk Assessment and Reduction

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>8. The scientific process can be used to design experiments and test hypothesis related to disease concepts, e.g., effectiveness of disinfectants on bacterial growth. (SC 7, HP3)</p> <p>9. The Center for Disease Control and local public health departments help to monitor and control disease. The Centers for Disease Control and Prevention (CDC) and the National Institute of Health (NIH) contribute to our understanding of diseases through longitudinal epidemiological studies, research and education. (HP 3)</p> <p>10. Engaging in risk behaviors as a young adult can contribute to the development of chronic disease. (HP 3, 5)</p> <p>11. Chronic diseases can be prevented or reduced through risk assessment, disease management and early treatment, and change in lifestyle. (HP 3, 5)</p> <p>12. Disease prevention, diagnosis, and treatment throughout history contributes to our present understanding and treatment of diseases. (HP 3)</p>	<p>a. conduct laboratory investigations to determine the effects controlled and variable conditions have on the growth of organisms. (1.2)</p> <p>a. using information from a variety of resources, evaluate risk factors to determine why there are cause and effect relationships between lifestyle choices and cardiovascular disease (1.4; 1.6)</p> <p>b. conduct research to answer questions regarding epidemiological studies about communicable diseases. (1.2)</p> <p>a. identify the relationship between smoking and emphysema or other behaviors that can contribute to chronic disease (1.6)</p> <p>a. analyze past problems related to chronic diseases to develop strategies to predict, prevent, solve or manage present or future disease-related problems (1.2; 3.2)</p> <p>a. interpret past human experiences regarding disease epidemics and apply the knowledge learned to new situations regarding disease detection, treatment and prevention (1.9; 1.10)</p>	<ul style="list-style-type: none"> • Design and conduct laboratory inquiries using agar and petri dishes to gather information and to formulate and test hypotheses regarding the effect of different types of disinfectants on bacterial growth. * Invite a guest speaker from the local health department to present the role of the CDC, NIH and the department of health in preventing and controlling epidemics in monitoring non-communicable diseases and associated risk factors.. • Gather and analyze data regarding the incidence of a communicable and chronic disease in the community. Identify an area where effective change could be made and develop a plan for implementing the change. • Given specific case studies involving chronic diseases and disorders, research the disease and propose adaptations in health habits, nutrition, living arrangements, personal environment, etc., that would lessen the problems associated with the disease/ disorder. • Assuming the role of an investigative reporter who has seen an increase in heart-related deaths in the community, select and apply appropriate resources to research how risk factors contribute to cardiovascular disease. Plan an effective special edition article to inform the community of the findings.

III. Risk Assessment and Reduction

B. Injury Prevention and Safety

What All Students Should Know

- By the end of grade 12, all students should know that*
1. Maturation experiences during adolescence brings the potential for new social problems that should be examined including strategies to prevent, manage or report concerns and receive treatment related to abuse, exploitation and harassment. (HP 5)
 2. Societal problems affecting teens includes rape, assault, homicide and other personal safety risks. Assessing, preventing or minimizing their risks are important strategies to learn for self protection. (HP 5)
 3. CPR, the Heimlich Maneuver and methods to control bleeding are life-saving procedures that can reduce the risk of sudden death. (HP 7)
 4. There are first-aid procedures and preventive practices for handling weather-related emergencies including hypothermia, frostbite, heat exhaustion and heat stroke. (HP 7)

What All Students Should Be Able To Do

- By the end of grade 12, all students should be able to*
- a. demonstrate strategies for resisting social problems related to abuse, exploitation or sexual harassment (3.1; 3.2; 4.7)
 - b. consider the viewpoints of others when discussing issues regarding sexual harassment, its effects upon individuals and strategies to prevent or handle it (2.3; 3.2)
 - a. describe and analyze methods that can be effective in preventing rape, assault, homicide and other personal safety risks (3.7; 4.7)
 - b. apply problem-solving skills to assess unsafe situations and the potential risks of injuries, then determine strategies to reduce their risk (3.2; 3.3; 3.6; 4.1)
 - a. identify situations or health conditions that can cause cardiopulmonary arrest and describe the life-saving procedures such as CPR (3.1; 4.7)
 - b. identify potential causes related to spinal cord injuries and demonstrate appropriate first-aid procedures for handling such injuries (3.1; 4.7)
 - a. describe the most common weather-related emergencies and verify whether a procedure addresses the injury problem to which it was applied. (3.5; 3.7; 3.8)

Sample Learning Activities

- Create a *Newsweek* special edition on violence in America in which rape, assault and sexual harassment are investigated and preventive strategies are outlined.
- Use effective communication techniques for various mock situations, e.g., school, work, dating, that reduces the potential for sexual harassment.
- Role-play a situation such as an intoxicated driver, unsupervised party. Analyze the potential risks and offer possible solutions which are then acted out. After the scenario is completed, analyze and evaluate processes used in solving problems.
- Write a letter to the newspaper editor or to the City Council stating concerns regarding violence in today's society and propose solutions.
- Read a problem related to an injury or emergency, e.g., sprain, broken arms, second degree burn, jammed finger, bleeding, cardiac arrest. Assess what is wrong, demonstrate proper procedures and verify whether the solution addresses the problem to which it was applied.
- Given a scenario, select and apply first-aid strategies for the prevention and treatment of weather-related emergencies including hypothermia, frostbite, heat exhaustion and heat stroke.
- Survey high school students to analyze their ability to apply appropriate first aid strategies to the emergencies described.

III. Risk Assessment and Reduction

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>5. There are ways to successfully assess and treat a variety of first-aid emergencies including sports injuries, exercise-induced problems and indoor / outdoor emergencies, e.g., inhalation, poisoning, bee stings, snake bites, near-drowning. (HP 7)</p>	<p>a. select and apply appropriate first-aid procedures and practices to treat a variety of injuries and emergency situations including shock, bleeding, fractures, etc. (3.2; 3.3)</p>	<ul style="list-style-type: none"> Plan and create a reference booklet for a middle school safe sitters class describing ways to handle common indoor and outdoor emergencies.

C. Tobacco, Alcohol and Other Drugs (TAOD)

51

<p><i>By the end of grade 12, all students should know that</i></p> <p>1. Tobacco, alcohol, and other drug use and abuse poses a large personal, social and economic threat to our society. (HP 5)</p> <p>2. There are ways to assess their risk of chemical dependency and to find help if TAOD use/abuse is a problem. (HP 5)</p>	<p><i>By the end of grade 12, all students should be able to</i></p> <p>a. make informed decisions regarding the use of alcohol based on knowledge of its short and long term effects on the body and its effects on both the individual and society (3.8; 4.1; 4.7)</p> <p>b. identify, analyze and evaluate a drug related issue or problem and predict long-term consequences (1.6; 4.3)</p> <p>a. evaluate personal risks for chemical dependency based upon personal, family and environmental factors (4.3; 4.7)</p>	<ul style="list-style-type: none"> Analyze and debate the pros and cons of prohibiting smoking in schools or in the workplace versus assigning designated smoking areas. Invite a psychologist, counselor or social worker to discuss with the class the topic of chemical dependency, its risk factors and ways to get assistance.
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III. Risk Assessment and Reduction

52

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>3. Anabolic steroids (drugs used by individuals to develop muscles and body strength) can cause severe damage to the liver and heart as well as other organs of the body. (HP 5)</p> <p>4. Drugs taken during pregnancy may pass into the fetus's bloodstream, causing the child to be born with deformities, retardation, and learning disabilities. (HP 5)</p> <p>5. Alcohol progressively affects areas of the brain inhibiting other bodily functions and causing changes in mood, thought processes, mental ability, coordination and reaction time. (HP 5)</p> <p>6. Individual responsibility, health promotion and alternatives to the use of chemical substances can help to promote individual family and community health. (HP 2, HP5)</p> <p>(Note: TAOD prevention involves more than the study of drugs and their effects on the body. Factors such as positive self-concept, family support, peer relationships, learning how to make good decisions are all important in drug prevention. These concepts are included in Social Systems and in Life Management skills in this Framework.)</p>	<p>a. identify and describe the long-term physical and psychological effects of steroid use, considering their effect upon individuals and society in which an idealized body image and win-at-all costs mentality takes precedent over health (1.1; 4.7)</p> <p>a. analyze the effects of tobacco, alcohol and other drugs on the unborn child (3.1; 4.3)</p> <p>a. evaluate information to determine a cause and effect relationship between alcohol use and emergency situations (1.6)</p> <p>a. work individually and with others to propose alternatives to teenage drinking, tobacco and other drug use (3.6; 4.6)</p>	<ul style="list-style-type: none"> • Prepare P.E. locker tags and posters that include the effects of steroids and the problems associated with the media's representation of an idealized body image. • Research the short- and long-term effects of tobacco, alcohol and other drugs on the body and on the unborn child. Present to the class through a mock trial or insurance company hearing. • Research automobile accidents where alcohol or drug use was involved, organize the data into a graphic form, then express a personal opinion in a written or oral presentation about driving while under the influence of alcohol and other drugs. • In a class roundtable discussion, identify and consider a variety of viewpoints when solving problems related to alcohol use during school sports events and activities. Select strategies through consensus building and report solutions to student government and PTA.

D. Environmental Health

What All Students Should Know

- By the end of grade 12, all students should know that*
1. Preservation of a healthy environment includes individual responsibility, societal commitment, government regulations and health advocacy for the monitoring, reporting and prevention of potential environmental hazards. (SC 8)
 2. Destruction of the ozone layer and global warming affect the health of individuals on a worldwide scale. (SC 7)

What All Students Should Be Able To Do

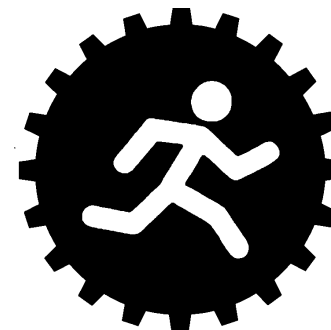
- By the end of grade 12, all students should be able to*
- a. examine ways that individuals, communities and state and federal government cooperate to promote environmental health (3.2; 4.3)
 - b. apply aesthetic consideration when addressing environmental health issues (1.10; 4.7)
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- a. assess environmental health risks in their community and in the workplace. Compare present environmental problems to the past and propose ways to reduce environmental health problems in the future (2.1; 3.1; 3.2)
 - b. analyze family histories to determine genetic risks and potential health problems related to exposure to environmental pollutants (1.9; 1.10)

Sample Learning Activities

- Create and distribute brochures which illustrate environmentally sound consumer alternatives for using disposable items such as paper, disposable diapers, Styrofoam products.
 - Assume the role of an advocacy group and have class write letter to local, state and national government representatives.
 - Debate an environmental health issue assuming the roles of government, industry, naturalist, etc. Propose solutions base on different viewpoints.
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- Collaborate with others to categorize environmental pollutants into air, land, chemicals, noise, etc. Research how each contributes to health problems and develop individual, community and government goals and a plan of action to address the problem.

IV. EFFICIENCY OF HUMAN MOVEMENT AND PERFORMANCE

- A. Fundamental Movement Skills and Games (K-8)
- B. Sport Skills and Lifetime Activities (4-12)
- C. Rhythms and Dance (K-12)
- D. Principles of Human Movement (K-12)



K-12 Content Overview

The development of the physically educated person is the primary goal of a quality physical education program. The physically educated person (1) has learned skills necessary to perform a variety of physical activities, (2) is physically fit (3) does participate regularly in physical activity (4) knows the implications of and the benefits from involvement in physical activities and (4) values physical activity and its contribution to a healthy lifestyle.

Providing opportunities for children to develop proficiency in human movement and performance is the responsibility of every school. Physical education curriculum has the primary responsibility for preparing children and youth to learn fundamental movement skills and games, sport skills and lifetime activities, rhythms and dance, and the principles of human movement. A knowledge of the efficiency of human movement and performance leads to an understanding of how and why they should develop a healthy, active lifestyle.

The school plays a vital role in teaching children the importance of engaging in a healthy, active lifestyle. The curriculum should not only stress the importance of physical activity but also promote social, mental, and emotional development in order to obtain optimal health and well-being. Students should have the opportunity to participate in and understand the importance of physical activity for enjoyment, fitness improvement, skill development and social development.

IV. Efficiency of Human Movement and Performance

A. Fundamental Movement Skills and Games

55

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p><i>By the end of grade 4, all students should know that</i></p> <ol style="list-style-type: none"> 1. Fundamental skills are divided into three categories: locomotor, non-locomotor and manipulative. (HP 4) 2. Balance is a complex part of physical activity. Balance is static and dynamic and reflects the ability to maintain equilibrium in relation to the force of gravity. (HP 4) 3. Knowledge of the physical self is developed through identification of external body parts. (HP 1, 4) 4. Specific concept, (e.g., spatial awareness and body awareness) and skills, (e.g., catching, throwing, and kicking) in the primary grades are the foundation for a broad spectrum of sport and physical activities. Competence in the basic movement forms leads to skill mastery and to combinations of skills at intermediate and upper elementary grades. (HP 1, 4) 5. Games are for enjoyment while allowing for the application of movement and promoting socialization. (HP 4) 	<p><i>By the end of grade 4, all students should be able to</i></p> <ol style="list-style-type: none"> a. demonstrate mature form in all locomotor patterns and selected nonlocomotor and manipulative skills (1.8, 1.10) a. demonstrate balance and control on a variety of body parts and objects through developmentally appropriate activities (1.10) a. organize information about major external body parts to demonstrate understanding of their location (1.8) a. demonstrate developmentally appropriate competence in combinations of fundamental skills performed individually and with others (1.10) b. acquire beginning skills of a few specialized movement forms (1.10) a. demonstrate motor skills and knowledge of the rules when participating in low-organized games (1.10) b. cooperate effectively with a partner and a group to accomplish an assigned task during games and activities (4.6) 	<ul style="list-style-type: none"> • Demonstrate basic locomotor, nonlocomotor and manipulative skills in games, with music, and in a variety of movement that lead to effective body management. • With a partner, demonstrate unilateral, bilateral and contralateral activities. • In personal space, balance on one body part, two body parts, using a variety of objects, balance board, scooters, skates, etc. • Move through an obstacle course that involves several turns with a beanbag on the head or other body part. • Correctly identify body parts through music cues in “Looby Loo” and “Hokey Pokey.” • Perform a mature catch , throw and kick using age-appropriate equipment. • Develop and perform a refined movement sequence with a repeatable pattern, e.g., dance. • Drop the ball and bat it against a wall after it bounces and keep the ball going as in handball. • Through participation in drills, dribble and pass a basketball to a moving receiver. • Through participation in drills, dribble a soccer ball through a designated obstacle course. • In groups, perform various dance activities with a parachute. • With a partner, toss a beanbag back and forth. Toss in various directions to make partner move and catch. • In cooperative groups, create a relay or tag game to share with the class.

IV. Efficiency of Human Movement and Performance

B. Sports Skills and Life-time Activities

What All Students Should Know

What All Students Should Be Able To Do

Sample Learning Activities

By the end of grade four, all students should know that

1. Emphasis of instruction should be on fundamental skill development, developmental games and activities. (HP 4)
2. Some specialized skills basic to a movement form are acquired and used individually as well as with a partner (e.g., soccer dribble, basketball chest pass.) (HP 4)
3. Progression moves from simple skills and combinations to the skill combinations and specialized skills needed for dynamic game-like situations and group participation. (HP 4)

By the end of grade 4 all students should be able to

- a. demonstrate competence in a variety of fundamental skills and a few selected sport skills (1.10)
- b. demonstrate proficiency in the application of movement knowledge and social skills in a variety of low-organized and lead-up games (1.1)

- a. display basic skills and safety procedures when participating in an outdoor pursuit (4.7)
- b. demonstrate competence in basic swimming strokes and survival skills in, on and around the water (4.7)

- a. cooperate effectively with partners and small groups to accomplish an assigned task or achieve a goal (4.5; 4.6)
- b. demonstrate competence in stunts and tumbling activities through animal movements, tumbling and inverted balances; balance individual, partner and group stunts; and partner support stunts (1.10)
- c. use technological tools and other resources to locate, select, and organize information (1.4)

- Toss a ball and catch before it bounces twice.
- Using properly positioned hands, catch a gently thrown object.
- Using the hands or feet, continuously dribble a ball without losing control.
- Strike a ball repeatedly with a paddle.
- Demonstrate the difference between an over and under-hand throw.
- Without hesitating or stopping, kick a stationary ball using a running approach.
- Kick a slowly rolling ball into the air or along the ground using the inside or instep of the foot.
- Consistently strike a softly thrown ball with a bat, paddle or racquet.

- Using map symbols or road signs, design a treasure hunt/relay to match the symbol with a clue or its real feature where possible.

- Hand dribble and foot dribble a ball and maintain control while traveling in groups.
- Using written skill based evaluation, demonstrate an acceptable level of performance in selected activities.

- use computer software to learn about various lifetime activities, equipment, safety and rules of behavior, e.g., bicycle safety.

C. Rhythms and Dance

What All Students Should Know

What All Students Should Be Able To Do

Sample Learning Activities

- By the end of grade 4, all students should know that*
1. Music has essential characteristics that can be recognized and understood. These characteristics include tempo, beat, meter, measure, intensity, mood, accent, phrase rhythm pattern and underlying beat. (FA 1)
 2. Dance is an art form as well as a social activity. The historical and cultural origins of dance help to better understand individuals of different cultures. (FA 2)
 3. Rhythm and dance activities allow for creativity, self-expression and development of fundamental movement skills. (FA 1, HP 4)

- By the end of grade 4, all students should be able to*
- a. identify, apply and respond to terms which apply to music and dance (1.10)
 - a. identify the historical and cultural origin of dances (1.10)
 - b. demonstrate step patterns, positions and formations common to a variety of dances (1.10)
 - a. perform rhythmic routines using fundamental movement skills and/or manipulatives (2.5)
 - b. participate in creative dance activities demonstrating dramatization, imitation, interpretation and improvisation (1.10)
 - c. demonstrate competence in dance and rhythms activities using multiple sources of information (1.10)

- Use drums, rhythm sticks, rhythm instruments and body sound (e.g., snapping fingers, stomping, clapping) to demonstrate or identify different music skills in various music selections.
- Using a square set, promenade a partner.
- Using rhythm sticks, demonstrate the difference in an even and uneven rhythm.
- Travel, changing speeds and directions in response to changing tempos.
- Identify the names, origins and rhythm patterns of various folk dances.
- Demonstrate the bleking step and the step-hop when performing "Bleking."
- Create a rhythmic routine that involves the manipulation of an object (e.g., rope, hoop, ball) while moving to a rhythmical beat.
- Create a short and complete idea through a dance.
- Imitate various animal sounds and movements creatively and to musical cues.
- Combine various traveling patterns in time to music.
- Identify and competantly perform a variety of line dances without a partner.
- Identify and competently perform various folk dances including square dances.

IV. Efficiency of Human Movement and Performance

D. Principles of Human Movement

58

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p><i>By the end of grade 4 all students should know that</i></p> <ol style="list-style-type: none"> 1. There are two major components of motor skill development, skill techniques and movement concepts which are important to a primary student. Skill techniques including critical elements and refining skills through practice are important in the intermediate grades. (HP 4) 2. Movement concepts are divided into four categories (1) body awareness (2) space awareness (3) qualities of movement (time or speed, force and flow) and (4) relationships (among body parts, with objects and/or people). (HP 1, 4) 3. The effective performance of movement skills requires an understanding of mechanical principles, i.e., stability, force, leverage, center of gravity, motion and direction. (HP 4) 	<p><i>By the end of grade 4, all students should be able to</i></p> <ol style="list-style-type: none"> a. identify and apply critical elements to improve personal performance in fundamental and selected specialized skills (1.10) b. use critical elements of fundamental and specialized skills to provide feedback to others (2.3) c. demonstrate progress as a result of practice (1.10) a. apply movement concepts to movement combinations and basic skills (1.10) a. recognize and apply mechanical principles that impact the quality of movement (1.10) 	<ul style="list-style-type: none"> • Perform a magic rope routine to demonstrate foot-eye coordination. • Catch various objects to demonstrate visual tracking skill. • Accurately recognize the critical elements of a throw made by a fellow student and provide feedback to that student. • Record in a log the results of a specific skill during a 10-minute daily practice period for 2 weeks. Analyze the information shown to determine progress over time. • Use concepts of space awareness and movement control to run, hop and skip in different ways in a large group without bumping into others or falling. • Use static and dynamic balance activity to apply various mechanical principles, e.g., tug of war. • Using a variety of equipment, demonstrate in a general space the ability to move in various ways, e.g., over, under, around, through, between. • Create a combination of shapes, levels and pathways into simple sequences. • Demonstrate the effects of the angle of trajectory and transfer of weight when throwing various objects. • Participate in teacher-directed drills to demonstrate the principles of base of support and center of gravity, e.g., run on command, come to a stop to maintain balance and then run on a separate command.

IV. Efficiency of Human Movement and Performance

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>4. Exploratory activities are intended to help children understand how their bodies move and allow them to experiment with movement. (HP 4)</p> <p>5. The musculature involved in correct posture must be balanced to hold the bones and joints properly in place. (HP 1, 4)</p>	<p>a. identify and respond appropriately to information from multiple sources to explore and improve skills e.g., tactile, auditory, visual and kinesthetic (1.5)</p> <p>a. demonstrate correct posture when standing, walking, sitting and lying (1.10)</p> <p>b. discover and evaluate the major types of joints found in the human body and the action they perform (1.6)</p>	<ul style="list-style-type: none"> • Through drumbeats, musical cues and verbal cues, demonstrate various combinations of movement concepts and fundamental motor skills individually, with a partner and with a small group. • Form letters or figures with body on the floor or in erect positions. • Participate in “Standing” posture checks. • Identify a ball and socket joint in the body and describe how it moves.

A. Fundamental Movement Skills and Games

What All Students Should Know

By the end of grade 8, all students should know that

1. The development of their fundamental skills allows for a competent level of participation in cooperative and competitive games.
(HP 4)

What All Students Should Be Able To Do

By the end of grade 8, all students should be able to

a. combine locomotor, nonlocomotor and manipulative skills in sequences of specific movement forms (1.10)

b. detect, analyze, and correct errors in personal movement patterns (1.6)

c. using mature motor patterns, combine movement skills and concepts effectively in a variety of games and activities (1.10)

Sample Learning Activities

- Working in small groups, design a jump rope routine including basic as well as combination skills and set it to music.
- Following a period of practicing throwing different types of objects, e.g., Frisbees, footballs, complete a peer assessment and/or a self-assessment of throwing performance, based on established criteria and then record progress in a journal.
- Work with a partner in a variety of self-test activities, e.g., combatives.
- Working in small groups, compose an expository paragraph which explains how to perform a specified skill in detail. Evaluate the effectiveness of writing and explanation of skill by demonstrating another group's instructions.
- Leap, roll balance, transfer weight, bat, volley, hand and foot dribble and strike a ball with a paddle using mature motor patterns in selected activities.
- To improve eye-foot coordination, create a foot-bag game to be used with a small group.
- To improve eye-hand coordination, design a juggling challenge for a partner.
- Demonstrate fielding a softball that is hit or thrown on the ground.

IV. Efficiency of Human Movement and Performance

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>2. Games present an opportunity to participate in enjoyable activities while developing physical skills as well as social skills, e.g., cooperation, competition and sportsmanship. Games beginning in the intermediate grades are divided into two categories: low organization games and sport lead-up games. (HP 4)</p>	<p>a. engage in activities that provide for challenge, problem solving, decision making and risk taking (4.7)</p>	<ul style="list-style-type: none"> • Design and play small group games that involve cooperating with others to keep an object away from an opponent. • Work in small groups to solve physical challenges, e.g., trust falls, human knot, partner pull-up. • Participate in a variety of lead-up games and demonstrate motor skills, rules and basic strategies, e.g., line soccer, dribble tag, king of the mountain. • Participate in a variety of low-organized games demonstrating skill, appropriate behavior and enjoyment in the activity, e.g., tetherball, four square, Frisbee, golf.

B. Sports Skills and Life-Time Activities

What All Students Should Know

By the end of grade 8, all students should know that

1. Sports and lifetime activities involves cognitively understanding the history, rules, strategies, safety principles and skill development in modified versions of team, individual sports, dual sports, aquatics, tumbling/ gymnastics and outdoor pursuits. (HP 4)

What All Students Should Be Able To Do

By the end of grade 8, all students should be able to

a. demonstrate application of terminology, scoring, rules of play, skill techniques, etiquette, safety principles and basic intermediate game strategies for the sport units covered in the instructional program (1.10)

b. analyze and use basic to intermediate offensive and defensive strategies in games and modified versions of sports (1.10)

c. discover the history and role of games, sports and dance in getting to know and understand people of diverse cultures (1.6)

Sample Learning Activities

- Correctly execute an overhand volleyball serve, overhead pass/set and forearm pass/bump while playing in a modified games.
- Execute the skills of batting throwing, fielding and base running while participating in a regulation-type softball game.
- Follow rules of the road to maximize safety when cycling.
- Design or create a game with objectives, rules and strategies for a specified number of players.
- Diagram and demonstrate the basic receiving formations for a volleyball team.
- Describe orally or in writing the offensive and defensive positioning of the players on a soccer team and the major responsibilities associated with each.
- As a class, design a mini-Olympics competition for the entire school. Include history and evaluation from ancient games to present day Olympics, origin of activities, countries that dominate certain activities, famous Olympians and Olympic records.
- During the study of foreign countries, incorporate the exercise/sport activities of that country into a "Foreign Country Day," e.g., France-luge.

IV. Efficiency of Human Movement and Performance

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>2. The development and practice of skills is essential to individual enjoyment and participation in physical activities. (HP 4)</p>	<p>a. consistently demonstrate basic to intermediate competence in a variety of activities to include dual individual and team sports, outdoor pursuit skills, aquatics, tumbling and gymnastics (1.10)</p> <p>b. use technological tools and other resources to locate,select, and oranize information (1.4)</p>	<ul style="list-style-type: none"> • Perform a gymnastics routine for either mat or apparatus, including an approach, development and dismount. • Use maps and compass for navigation through an orienteering course. • Create a routine, combining skills used in a specific sport and perform the routine to music, e.g., Harlem Globetrotters routine utilizing ball-handling skills. • Use a sports magazine and newspaper photos to create a display that illustrates a specific movement concept. • Create a portfolio demonstrating competence in a selected number of movement forms. Competence can be verified with a videotape of performance or certification of participation, e.g., all-stars, equestrian show, Red Cross certification. • Using a written /skill-based evaluation, demonstrate an acceptable level of performance in selected activities. • use computer software to enhance understanding of various lifetime activities, equipment, safety and rules of behavior

C. Rhythms and Dance

What All Students Should Know

By the end of grade 8, all students should know that

1. The historical and cultural study of dance offers the opportunity to actively participate in learning while developing social, dance and rhythm skills. (FA 5)

What All Students Should Be Able To Do

By the end of grade 8, all students should be able to

- a. discuss cultural and historical context of at least one dance currently danced in the community (2.3)
- b. design and perform rhythm and dance that combine locomotor and nonlocomotor movements into smooth flowing sequences with intentional changes in direction, speed and flow (2.5)
- c. demonstrate appropriate social skills while participating in dance activities, including etiquette and courtesies appropriate to various dance forms (1.10)
- d. competently perform dances from various cultures and describe similarities and differences in patterns, positions and steps (2.5)

Sample Learning Activities

- After studying the origin and history of why music was played during the opening and closing ceremony of the Olympics, discuss the symbolism.
- After studying how music and dance have always been a part of the ancient and modern Olympic games, relate the music, dance and drama of selected countries.
- Create movement sequences alternating movement and balance and synchronize to a fast tempo music selection.
- Develop a movement routine that involves the manipulation of an object while moving to a rhythmical beat.
- Brainstorm and demonstrate acceptable social etiquette for a social dance, comparing and contrasting dances with and without partners.
- Perform different dances, e.g., Grand March, Cotton-Eyed Joe and Virginia Reel, then compare the different steps involved in the dances.

IV. Efficiency of Human Movement and Performance

65

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>2. Self expression and creativity continues to be developed by studying the aesthetics and choreography of dance. (FA 1)</p> <p>3. Dance is both a fitness and life-time activity. Dance improves cardiovascular endurance, coordination, flexibility, kinesthetic awareness, muscular endurance and muscular strength. (HP 4, FA 2)</p> <p>4. The skills developed in fundamental rhythms lay the foundation for developing more precise dance skills of folk, social and square dance as well as creative dance.</p>	<p>a. recognize the aesthetic and creative aspects of dance performance (1.9)</p> <p>b. discover, evaluate and discuss how dance is different from other forms of human movement (1.6)</p> <p>c. describe ways to use the body and movement activities to communicate ideas and feelings (2.4)</p> <p>a. demonstrate how dance can improve individual fitness (1.10)</p> <p>a. exhibit basic dance skills and fundamentals while performing various dances, e.g., folk, square, aerobic, line (2.5)</p>	<ul style="list-style-type: none"> • Discuss in small groups how different accompaniments can affect the meaning of dance. Present illustrations of the findings to the class. • After viewing a variety of music videos, identify examples of aesthetic and creative aspects of dance performance. • Design a “Sports Dance” that will depict the combination of skills and movement concepts within a sport. • Create a music video to a well-known song demonstrating creative expression, choreography and flow that corresponds with the beat and theme of the song. • Create an audiovisual tape appropriate for exercising to music. Design an exercise routine to accompany the music that emphasizes a specific fitness component. • In small groups, create an aerobic routine to music that emphasizes cardiovascular fitness. • Participate in a culminating activity such as a “Bandstand Day” where students perform the dances taught. • Meet an acceptable level of performance on a written/skill evaluation.

IV. Efficiency of Human Movement and Performance

D. Principles of Human Movement

What All Students Should Know

- By the end of grade 8, all students should know that*
1. To effectively improve performance, the critical elements involved in a skill must be understood and applied. (HP 4)

 2. Skill is developed through constantly well-guided and informative practice. However, practice alone is not sufficient for improvement. Feedback or knowledge of results must also be communicated for correct skill acquisition to occur. (HP 4)

What All Students Should Be Able To Do

- By the end of grade 8, all students should be able to*
- a. identify and apply critical elements to improve performance in selected skills (1.10)

 - b. identify the characteristics of highly skilled performances in a few movement forms (1.10)

 - a. recognize and apply principles of motor learning, e.g., transfer of learning (1.10)

 - b. detect, analyze and correct errors in personal movement patterns through self-evaluation and peer/teacher feedback (4.5)

Sample Learning Activities

- Explain why “full range of motion” is necessary in implementing effective practice procedures in selected activities, e.g., throwing a ball, and weight training.

- View a videotaped or live performance of elite athletes and describe the skills and characteristics necessary for success, e.g., volleyball match, and gymnastics competition.

- Relate the similarities in the underhand serve in volleyball, the underhand pitch in softball then demonstrate the transfer of learning.

- Relate the forehand drive in tennis to the forehand drive in badminton to explain negative transfer of learning.

- Use a checklist to provide feedback on the skill of a partner in a psychomotor activity.

- Reform a self-assessment of progress in throwing different types of objects, e.g., Frisbee, softball, basketball, football, deck tennis rings. Record in a journal and identify differences and similarities that occur when applying the principals of throwing to different objects.

IV. Efficiency of Human Movement and Performance

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>3. Improvement of skill and performance can be achieved by applying biomechanical and physiological principles to physical activity. (HP 4)</p>	<p>a. recognize and apply biomechanical principles that impact the quality of movement, e.g., Newton’s laws of motion, spin, rotation and torque (1.10)</p> <p>b. discover, evaluate and explain how growth in height and weight influences the mechanical nature of performance in physical activities (1.6)</p> <p>c. identify isometric, isotonic and isokinetic exercises and relate each to efficient development of muscular strength and endurance (1.6)</p>	<ul style="list-style-type: none"> • Demonstrate the application force and speed, to run and jump for distance and height. • Design physical activity that demonstrate various scientific principles/ concepts. • Experiment and test trajectory and Newton’s Second Law by throwing different sizes of balls and recording the results. Draw conclusions regarding which size of ball traveled further, how speed affects trajectory, etc. • Partner identifies the type of spin placed on the ball when serving overhand in volleyball. • Through class discussion, compare body types and shapes necessary for optimal performance in a variety of track and field events, e.g., distance runners and throwers. • Select exercises and activities (with and without special equipment) that meet personal muscular strength and endurance needs. Design an exercise plan based on those needs.

A. Fundamental Movement Skills and Games

Due to the progression of curriculum development, fundamental movement skills and games should be provided to students from kindergarten through eighth grade and should not be addressed at the high school unless the skill level in these areas necessitates it.

B. Sports Skills and Lifetime Activities

What All Students Should Know

What All Students Should Be Able To Do

Sample Learning Activities

By the end of grade 12, all students should know that

1. Sports and lifetime activities involve cognitive understanding of the history, rules, strategies, safety principles and skill technique that comprise team sports, individual sports, dual sports, aquatics, tumbling, gymnastics and outdoor pursuits. (HP 4)

2. The principles of human movement play an important role in the improvement of individual sports skills. (HP 4)

By the end of grade 12, all students should be able to

a. demonstrate consistently the application of sports terms, scoring, etiquette and rules of play, skill techniques, safety principles, intermediate to advanced game strategies for sport units covered in the instructional program (1.10)

b. recognize the influences of participation in sport on developing appreciation of cultural, ethnic, gender, and physical diversity (1.6)

a. consistently demonstrate intermediate to advanced competence in a variety of activities to include individual/ dual and team sports, outdoor pursuit skills, aquatics gymnastics and tumbling (1.10)

b. independently apply advanced skill-specific information for a self-selected activity (1.10)

- Select and research two outdoor pursuits then compare and contrast their effects on the environment. Present findings to the class.
- Use a written or skill-based evaluation to demonstrate an acceptable level of performance.

- Gather a list of various professional, college, and high school mascots and identify which might be offensive for different cultural, ethnic and gender groups.
- Interview a foreign exchange student regarding sports in their culture. Compare and contrast to U.S. culture and sports.

- Develop a portfolio documenting students' proficiency in at least two sport-related skills.
- Plan practice sessions applying processes and knowledge from scientific principles to improve performance.

- Pass the intermediate or advanced Red Cross swimming requirements.
- Use a variety of clubs competently to play a round of golf.

IV. Efficiency of Human Movement and Performance

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>3. Cooperating and meeting with others of varying abilities provides enjoyment and encourages regular physical activity which leads to a healthy lifestyle. (HP 2)</p>	<p>a. recognize that physical activity can provide opportunities for positive social interaction (1.6)</p> <p>b. work as individuals and collaborate with others to accomplish tasks or reach goals when involved in various physical activities (4.6)</p> <p>c. identify participation factors such as risk and safety factors, personal characteristics, performance styles and activity preferences that contribute to enjoyment and self-expression throughout the life cycle (4.1)</p>	<ul style="list-style-type: none"> • Participate in a “Big Brother/Sister” program with a peer. Teach the individual how to play or participate in a selected activity. Maintain a log and record feelings about teaching and sharing the activity with someone else. Note also the reaction of the “little brother/sister.” • Participate in a ropes course activity in which you work to accomplish the groups goals. Rate yourself on selected criteria, e.g., active leader role, supportive follower role. • In cooperative groups, select a physical activity and list modifications for participants of various age groups. Report findings to the class. Through class discussions. evaluate why some sports lend themselves to lifetime activity and others do not.

C. Rhythms and Dance

What All Students Should Know

What All Students Should Be Able To Do

Sample Learning Activities

By the end of grade 12, all students should know that

1. The historical significance of dance provides social, historical, cultural and political meaning unique to each culture. (FA 5)
2. Rhythm and dance skills, as with any physical skill, are refined through practice and self-evaluation. (HP 4, FA 1)
3. Dance is a movement experience that provides social and recreational activity for a lifetime. (HP 4)

By the end of grade 12, all students should be able to

- a. analyze and evaluate the relationship of dance to the development of culture (1.6)
- a. perform, produce and evaluate a variety of dances which represent different cultural backgrounds (1.9; 2.5)
- b. perform basic skills and demonstrate social etiquette in many dance forms and refine these skills through practice, self-evaluation and correction, e.g., social, contemporary, jazz, aerobic, folk and, square (1.10)
- a. demonstrate dance and rhythmic activities that use a variety of equipment to communicate ideas and develop various components of fitness (1.10; 2.1)
- b. discuss the recreational and social aspects of dance (2.1; 2.3; 2.4)

- Prepare a written report describing the role of dance in at least two different time periods/cultures.
- Create a time line illustrating important dance events in America in the 20th century. Include social, historical, political, cultural descriptions with each dance represented in the timeline.
- Create and perform a dance individually or as a group. Videotape while presenting to the class. Using specified criteria, evaluate performance and offer suggestions for aesthetic and skill improvement.
- Perform basic skills of traditional social dances, e.g., waltz, fox-trot, jitterbug and selected contemporary dances, e.g., rock, disco, line.
- Exhibit appropriate social etiquette with peers while performing line dances.
- Follow directions and respond to calls in square dancing.
- Create a tinkling or jump rope routine for an assigned music selection.
- Create an exercise routine to music that emphasizes muscular strength and endurance using hand weights.
- Create a dance that effectively communicates a contemporary social theme.
- Research the history of square dancing in the United States and Missouri. Prepare a display on the findings that includes recreational and social benefits as well as historical and cultural significance.

D. Principles of Human Movement

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p><i>By the end of grade 12, all students should know that</i></p> <ol style="list-style-type: none"> 1. Since the human body is a system of weights and levers, its efficiency and effectiveness at rest or in motion can be improved by the application of sound mechanical and anatomical principles. (HP 4) 2. Equilibrium, motion, force and Newton’s laws constitute the basic principle of mechanics related to the fundamentals of physical activity. (HP 4, SC 2) 	<p><i>By the end of grade 12, all students should be able to</i></p> <ol style="list-style-type: none"> a. critically evaluate the acquisition, execution and continued improvement of skilled physical performances in a variety of complex activities (1.6) b. analyze how the bones, joints and muscles of the human body work as anatomic levers (3.5) <ol style="list-style-type: none"> a. apply the processes and knowledge learned from scientific principles to gain more efficient use of the body in daily activities, e.g., lifting and reducing injury (1.10) 	<ul style="list-style-type: none"> • With a partner, prepare a videotape of each other performing a sport skill, dance or other physical activity of choice. Analyze the performance and prepare a written report including the critical elements required of the skill, a self-analysis of the positive and negative attributes of the performance, and corrective measures needed for improvement. • Discuss the characteristics of each type of lever, when each would be used and illustrate their use in various activities. • Describe the difference between agonist and antagonist muscle groups and explain why it is important to exercise muscles on each side of a joint. • Brainstorm how proper body mechanics and exercise can prevent back pain/injury. Develop and implement a flexibility program to prevent lower back problems. • Using a tennis serve, demonstrate how angle of incidence is equal to the angle of reflection. • Define and demonstrate Newton’s laws of motion in at least two different physical activities. • In cooperative groups, research the causes, preventions and corrections for selected postural deviations. Present findings to the class. • Using cooperative groups, identify and describe the body joints that are likely to have a loss of flexibility as a result of working in a sedentary job. Present an exercise program that would counteract these effects.

IV. Efficiency of Human Movement and Performance

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>3. The ability to independently learn, self-assess and improve movement skills is achieved by applying principles of biomechanics and exercise physiology to practice and performance. (HP 4)</p>	<p>a. apply the processes and knowledge learned from scientific principles to develop effective practice procedures in order to ensure proficient performance in self-selected activities (1.10)</p>	<ul style="list-style-type: none"> • In cooperative groups, plan practice sessions, applying processes and knowledge from scientific principles to improve performance. Present the practice session to the class restating the correct skill technique and scientific principles related to the skill. • Devise and perform a gymnastic-tumbling routine after explaining the significance of biomechanical principles to the skills involved.

V. PHYSICAL ACTIVITY AND LIFETIME WELLNESS

- A. Personal Fitness/Wellness
- B. Responsible Personal and Social Behavior in Physical Activity Settings
- C. Injury Prevention/Treatment and Rehabilitation



K-12 Content Overview

Physical activity is an integral part of a multifaceted wellness lifestyle. Regular participation in physical activity has far-reaching effects upon the quality and quantity of life. Scientific studies indicate there are significant differences in the health status of individuals who are active versus those who have a sedentary lifestyle. Schools can assist students in gaining an understanding of the importance of developing and maintaining optimal fitness. Instruction in the principles of physical fitness will address the issues of frequency, intensity and time (FIT) types of physical activity and their effects on the body as well as designing and implementing personal fitness plans. Learning safe and appropriate warm-up and cool-down activities in order to prevent injuries is also an important topic to be addressed.

Students develop appropriate and responsible personal and social behaviors by working independently and with others during planned physical activity. Students learn that effective group work depends on cooperation and fair competition. They also learn to assess situations and to identify and solve problems. Students learn to respect others and appreciate the diversity of our society. The acquisition of positive social skills also contributes to the mental health and well-being of each student by combating risk factors for substance abuse and other social problems.

A. Personal Fitness/Wellness

What All Students Should Know

What All Students Should Be Able To Do

Sample Learning Activities

By the end of grade 4, all students should know that

1. Gaining basic knowledge of the components of health-related fitness is essential to understanding that exercise contributes to good health. (HP 4)

2. Learning the internal and external body parts and their relationship to developing a healthy body helps in understanding their physical self. (HP 1)

By the end of grade 4, all students should be able to

- a. identify the components of health-related fitness and relate their importance to individual well-being (4.1)
 - b. differentiate between aerobic and anaerobic exercises when performing individual routines (1.6)
 - c. select and participate regularly in physical activities for the purpose of improving skills and health (4.7)
- a. identify the major structures and functions of the circulatory, respiratory, muscular and skeletal systems and relate them to the development of a healthy body (1.6)

- Identify each component of fitness and describe an exercise that has the potential to develop that component.
- Create a walking/jogging track for a “Walk Across Missouri.” The activity focus is goal setting and healthy lifestyle but also provides an opportunity to study the state of Missouri.
- Use stethoscopes to listen to the heartbeat and to count the number of heartbeats in 10 seconds.
- Identify pulse in the carotid and radial artery.
- Record after-school activities for 1 week, indicate the activities that are vigorous in nature, and identify the fitness components related to different activities. Ask parent or guardian to sign the log each day.
- Construct a heart obstacle course to examine the circulation of blood.
- Identify and locate the major muscle groups and demonstrate one appropriate exercise for each major muscle group.

V. Physical Activity and Lifetime Wellness

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>3. There are physiological signs associated with engagement in rigorous physical activity. (HP 2, 4)</p> <p>4. Health-related fitness testing is conducted for personal fitness assessment. (HP 4)</p> <p>5. Stress is present in many forms at all developmental levels and effective coping and management skills must be learned. (HP 2)</p> <p>6. Wellness is developing a positive attitude and quality of life that involves proper diet, exercise and a balance between work, recreation, and family time. (HP 2)</p>	<p>a. use technological tools and other resources to locate, select and organize information. (1.4)</p> <p>b. recognize the physiological indicators that accompany moderate and vigorous physical activity (1.10)</p> <p>a. demonstrate an improved and/or acceptable level of performance on a health-related fitness test (4.7)</p> <p>b. associate results of fitness testing to personal health status and the ability to perform various activities (1.6)</p> <p>a. develop ways to manage common sources of stress (4.7)</p> <p>a. use technological tools and other resources to locate select and organize information (1.4)</p> <p>b. explain the role of nutrition and physical fitness in the maintenance of optimal health (2.1)</p> <p>c. recognize that substance use and abuse is detrimental to a healthy lifestyle (3.1)</p>	<ul style="list-style-type: none"> • Use computer software to gain an understanding of basic anatomy and physiology and the importance of organ systems (1.4) • Keep a record of heart rate before, during and after vigorous physical activity. • Participate in the Prudential Fitnessgram or President’s Challenge health-related fitness test. • Interpret fitness testing results to set individual goals for improvement through a physical fitness contract. • Discuss the effects of stress on the body. • Use physical activity as a stress management tool. • Use computer software to understand the relationship between optimal health and nutrition, stress exercise, sleep and avoidance of harmful substances. • Use an activity such as “Cholesterol Tag,” Pyramid Relay” or “Pyramid Toss” to emphasize the food pyramid and its relationship to proper diet and good health. • Using a model of the human body, identify body parts and systems affected by alcohol and tobacco use. • Use library resources to research selected health fitness and/or wellness topics.

B. Responsible Personal and Social Behavior in Physical Activity Settings

What All Students Should Know

- By the end of grade 4, all students should know that*
1. Responsible behavior centers around the development of personal and social responsibility, and acceptable behaviors for physical activity settings can be learned and utilized. (HP 2, 4)
 2. The purposes for activity, specific safe practices, rules, procedures and etiquette should be identified and followed with few reminders. (HP 4)
 3. Physical activity provides the opportunity for enjoyment, challenge, self-expression and social interaction. (HP 4)
 4. Developing an understanding and respect for differences among people is an integral part of participation in physical activity. (HP 4)

What All Students Should Be Able To Do

- By the end of grade 4, all students should be able to*
- a. work independently and on task for short periods of time and exhibit age-appropriate behavior in a variety of settings (4.3)
 - b. work cooperatively and productively with a partner or small group to achieve group goals (4.6)
 - a. utilize safety principles and etiquette in activity situations, considering self and others (4.7)
 - b. differentiate between courageous and reckless acts (3.1)
 - a. use physical activity as a means of self-expression and enjoy interaction with friends and family members (4.7)
 - b. willingly try new activities to refine skills through self-motivated practice (4.7)
 - a. recognize the attributes that individuals with differences can bring to group activities, cultural, ethnic, etc. (2.3)

Sample Learning Activities

- Working independently or in groups, participate in skill training stations such as gymnastics, ball skills and team sports.
- Create an activity wall chart comparing differences of safety practices, rules, procedures and etiquette for activities studied.
- In small groups, create a game using various equipment. Teach the game to other groups specifying safety rules and etiquette.
- Through class discussion, create a physical activity calendar for 1 month and encourage family members to participate on activity days.
- Create a game in which a person who is physically challenged would be able to compete equally with others. Describe the challenges encountered while participating in the game.
- With a partner, focus on a geographical location by presenting a game, dance or other physical activity associated with the origin of the country.

C. Injury Prevention/Treatment and Rehabilitation

What All Students Should Know

- By the end of grade 4, all students should know that*
1. Prevention techniques for exercise-related injuries include warm-up, stretching, conditioning and cool-down; the use of protective gear; use of proper technique in skill performance; and the implementation of safety practices. (HP 4)
 2. Prevention and treatment techniques involve identifying safe and potentially unsafe situations, developing a competent skill level to allow for safe participation, and being able to provide appropriate assistance in an emergency, such as calling 911. (HP 7)

What All Students Should Be Able To Do

- By the end of grade 4, all students should be able to*
- a. distinguish between the terms warm-up, cool-down, stretching and conditioning (1.6)
 - b. recognize appropriate warm-up, cool-down and flexibility activities and importance of each to injury prevention (1.6)
 - c. demonstrate a variety of flexibility, warm-up, cool-down, and conditioning activities (1.10)
 - d. discuss the importance of safety in all activities in relation to environmental conditions, proper technique and the use of protective gear (1.10)
 - a. demonstrate the ability to practice health enhancing behaviors and reduce health risks, e.g., follow safety rules, stretching before exercising (4.7)
 - b. use technological tools and other resources to, locate, select and organize information (1.4)

Sample Learning Activities

- With a partner, relate one activity that describes each of the following: warm-up, cool-down, stretching, conditioning.
- Locate and describe the major body joints. Recognize which flexibility exercises are appropriate for the major joints.
- Explain why bent knee sit-ups are recommended instead of straight leg sit-ups.
- Demonstrate at least 2 minutes of safe and appropriate warm-up and cool-down techniques for aerobic exercise.
- Demonstrate correct techniques of static stretches.
- In small groups, discuss why protective gear is important to personal safety (e.g., eye guards, bicycle helmets, knee pads and seat belt).
- In cooperative groups identify behaviors that are safe, risky or harmful to self or others. Compose a list of playground safety rules then use student contract to enforce the rules.
- During free play, transfer “rules of the gym” to “rules of the playground.”
- Use CD-ROM to help identify and correct unsafe situations in the home, school and playground.

V. Physical Activity and Lifetime Wellness

A. Personal Fitness/Wellness

What All Students Should Know

What All Students Should Be Able To Do

Sample Learning Activities

By the end of grade 8, all students should know that

1. Health-related fitness includes muscular strength, endurance, body composition, flexibility and cardio-vascular fitness. (HP 4)

2. Skill-related fitness includes coordination, agility, balance, power, speed and reaction time. (HP 4)

3. Principles of exercise play a vital role in establishing personal fitness goals. (HP 4)

By the end of grade 8, all students should be able to

- a. differentiate between activities that will improve skill-related components versus those that will improve health-related components of fitness; correctly demonstrate a variety of activities for both (3.5; 1.10)

- b. determine personal target heart rate and understand its importance to cardiovascular training (4.7)

- a. define the acronym FIT and the principles of overload, progression and specificity as they relate to exercise (1.10)

- b. use technological tools and other resources to locate, select and organize information (1.4)

- Identify the components of health-related fitness and prescribe at least two exercises and one activity that would contribute to the development of that component.
- Identify muscle groups affected by specific exercise and identify those that will maximize muscular strength and endurance.
- Using the weight training circuit developed in class, categorize each exercise with the muscle most involved.
- Using heartrate monitors on taking your own pulse record heartrate before, during and after engaging in different types of sedentary and active activities each day for a week. Identify the extent to which each of these activities has the potential to contribute to cardiovascular fitness and other components of health-related fitness.
- Calculate target heart rate zone.

- Design an aerobic program for individual cardiovascular improvement based on FIT.

- Use interactive computer software to study human anatomy and physiology.

V. Physical Activity and Lifetime Wellness

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>4. Health-related fitness tests are administered to assess personal fitness levels, set personal goals and develop plans for self-improvement. (HP 2, 4)</p> <p>5. Stress is a physiological and mental response to a stressor. The problem is not stress itself, but how we react to it. Understanding the role of stress management, assists the individual in maintaining health and achieving optimal performance. (HP 2)</p>	<p>a. demonstrate an improved and/or acceptable level of health fitness standards as defined by a recognized fitness test (4.7)</p> <p>b. analyze and evaluate the relationship of regular exercise to the development of the individual (1.6)</p> <p>c. use technological tools and other resources to locate, select and organize information (1.4)</p> <p>a. develop skills necessary to reduce and manage stress (4.7)</p>	<ul style="list-style-type: none"> • Participate in the Prudential Fitnessgram or President’s Challenge fitness test. • Maintain a record of performance on health-related fitness times over a period of 1 year on an individual data card to demonstrate progress and minimum criteria. Use this information to assess performance. • Evaluate information obtained from physical assessment and/or health risk appraisal to create a personal fitness plan. • Identify a desired goal related to physical activity, e.g., learning a new skill, reaching a fitness goal. Create a step-by-step plan for meeting the goal. Track the progress of the goal through a written journal sharing feelings after the goal was met. • Watch the movie “<i>Rudy</i>.” Discuss the goals he made for himself and what he had to do to accomplish those goals. Write a paragraph on personal goals and the importance of those goals. • Use computer software to assess personal fitness levels. • Through brainstorming and class discussion, describe physiological changes associated with stress as well as the positive and negative effects of stress on individual wellness. • Identify, describe and participate in a variety of activities that aid in stress management (e.g., physical activity, time management, stretching and breathing techniques).

V. Physical Activity and Lifetime Wellness

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>6. Wellness refers to the development of the total individual. Social, emotional, physical and mental needs of the individual are important to total wellness. (HP 2)</p>	<p>a. identify and evaluate responsible decision making behaviors as they affect wellness (4.1; 4.7)</p> <p>b. identify benefits resulting from participation in different forms of physical activities (3.8)</p> <p>c. determine the relationship between nutrition and weight control (1.6)</p> <p>d. use technological tools and other resources to locate, select and organize information (1.4)</p>	<ul style="list-style-type: none"> • Identify activities that enhance and inhibit a healthy lifestyle. Using these activities, role-play situations appropriate to age and community issues (e.g., substance use) to practice decision-making and refusal skills. • Create a display of advertising campaigns based upon a current role model or product. Recognize that idealized images of the human body and performance, as presented by the media, may not be appropriate to imitate. • Write an essay for national physical education and sport week/month to be printed in the local newspaper that outlines the benefits of participation in physical activities. • Create a video for new students entering the school that outlines the various sport and activity options for people living there, including both school and community resources. • Work individually or with a partner to estimate the distance for a walking/jogging course around the school building. Determine how long it actually takes to walk the course and then compute your own walking/jogging pace. • Through class discussion, identify optimum weight and body composition and describe their relationship to a sound nutritional program. • Keep a 3-day food log: Record foods eaten, amount eaten and mood/emotion at the time of eating. When completed, follow with class discussion relating characteristics of self-esteem and emotion to eating habits and disorders. • Use interactive tutorials to explore current health issues (e.g., AIDS, anorexia, bulimia, stress, steroids, depression, substance use and abuse). • Use computer software/CD-ROM to analyze diet and gain knowledge about the digestive system and nutrition.

B. Responsible Personal and Social Behavior In Physical Activity Settings

What All Students Should Know

By the end of grade 8, all students should know that

1. Seeking independence from adults, appropriately solving conflicts and understanding the need for rules, safe practices, and ethical behavior are all a part of responsible personal and social behavior. (HP 2, 5)

What All Students Should Be Able To Do

By the end of grade 8, all students should be able to

- a. demonstrate and show support of decisions made by game officials whether they are students, teachers or officials outside of school (2.3)
- b. describe personal and group conduct, including ethical behavior, appropriate for engaging in physical activity (2.3)
- c. distinguish between compliance and noncompliance of game rules (1.10; 4.3)
- d. work cooperatively with a group to achieve group goals in competitive as well as cooperative settings (4.6)

Sample Learning Activities

- During a team game, a designated student official awards one behavior point for every overt example of supportive ethical behavior and takes away one behavior point for every example to the contrary. Individual or team behavior points may be kept as well as the game points.
- After each class period, record in a journal or keep a log of events in which individually, or as a class, positive sportsmanship was displayed and those events in which good sportsmanship was not displayed.
- Exhibit appropriate verbal and physical expressions during participation in learning activities and performances, sportsmanship, enthusiasm, satisfaction of performance, disappointment, etc.
- View a video involving a game activity then discuss the ethical and unethical behaviors demonstrated by the participants and the spectators.
- Start a "Fair Play" program and give awards for good sportsmanship displayed during the semester. Include spectator as well as participant sportsmanship.
- Create and participate in the following situations and discuss their differences:
 - (1) Play a game without officials or rules; then play the same game with officials and rules.
 - (2) Play "new games" with an emphasis on cooperation; then play a very competitive game.
 - (3) Participate in games of trust and discuss how

V. Physical Activity and Lifetime Wellness

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>2. Physical activities build social skills, confidence, provide challenge and serve as a vehicle for self-expression. Each individual should enjoy being physically active. (HP 4)</p> <p>3. Gaining an awareness and understanding of similarities and differences among cultures, as well as individuals, helps create inclusion of all people in the physical activity setting. (HP 2)</p>	<p>a. engage in activities that provide for challenge, problem solving and decision making (4.7)</p> <p>b. recognize the influence of peer pressure by identifying positive and negative peer influences (3.1; 3.3)</p> <p>a. demonstrate knowledge of similarities and differences in people of various ages, gender, and abilities and the cultural significance they contribute to various games, dances and physical activities (1.10)</p> <p>b. acknowledge and support physical and performance limitations of self and others (4.1)</p>	<p>attitudes, behavior and expectations have changed from the previous two examples.</p> <ul style="list-style-type: none"> • Identify incidents in sport/ activity participation (in/ out of class) that make you feel good and those that make you feel bad. Through class discussion, describe what you learned about creating positive experiences for yourselves and others in sport/ physical activity. • Identify a country and its favorite sports. Compare the level of competition to professional sports in America. Write a paper delineating differences and similarities. • Research a game, sport and/ or dance activity representing difference cultures, then lead the class in one activity, explaining the significance of the activity to that particular culture. • Create a game in which a person who is visually impaired would be able to compete equally with one with sight. • In cooperative groups, discuss what “physically challenged” is, choose one physically challenging situation and complete a list of modifications necessary for successful participation. Present findings to the class.

C. Injury Prevention/Treatment and Rehabilitation

What All Students Should Know

By the end of grade 8, all students should know that

1. Most of the injuries associated with exercise are avoidable. Knowing proper clothing and equipment, safety guidelines and correct technique will lead to a more enjoyable and injury-free activity. (HP 4)

What All Students Should Be Able To Do

- By the end of grade 8, all student should be able to*
- a. demonstrate effective injury prevention practices before, during and after activity (4.7)
 - b. recognize incorrect techniques and methods of stretching and exercising and discuss how these can injure the body (1.10)
 - c. discuss the exercise guidelines pertinent to local environmental conditions (e.g., humidity, pollen count, heat, cold) (1.10)
 - d. discuss how local climate and environmental factors relate to and affect activity (e.g., dress, performance, activity selection) (1.10)

Sample Learning Activities

- Identify and demonstrate correct warm-up conditioning and cool-down principles appropriate to activity selection.
- Discuss the importance of shoe selection to activity selection (walking, football, aerobics, basketball) in preventing injuries.
- Discuss the body's need for water during exercise and how it is best replaced.
- During class activities, discuss and follow rules of the road in walking, jogging and cycling.
- In small groups, develop an exercise program that increases flexibility.
- As a class, compile a list of stretches and exercises that should not be done and discuss the reasons why they are inappropriate.
- Explain why running to exhaustion for the end of work-out can damage the heart.
- Discuss exercise guidelines pertinent to local climate and environmental conditions, create a display to show findings and serve as a guide for the student body. (Include temperature levels, humidity readings, pollen counts, and recommended dress and activities.)

V. Physical Activity and Lifetime Wellness

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>2. When exercise-related injuries do occur, identifying and appropriately treating them speeds recovery and returns the individual to activity as soon as possible. (HP 4)</p>	<p>e. identify the myths and facts of exercise, including activity, equipment and products (3.1)</p> <p>a. identify common exercise-related injuries (strain, sprain, blisters) and the appropriate treatment (3.1)</p> <p>b. use technological tools and other resources to locate, select and organize information (1.4)</p>	<ul style="list-style-type: none"> • Discuss the pros/cons of hand or wrist weights when doing aerobic exercises. • Discuss the dangers of wearing rubber suits when exercising. • As a class discuss the use of performance-enhancing drugs in physical activity. Using library resources, research one performance-enhancing drug and create negative advertisement. • Explain RICE. • Demonstrate competency in basic first aid. • Discuss exercise guidelines, preventions and treatment for exercise-induced asthma. • Using computer software, design safe workouts to reach a fitness goal. Highlight sport injury prevention and treatment.

A. Personal Fitness/Wellness

What All Students Should Know

What All Students Should Be Able To Do

Sample Learning Activities

By the end of grade 12, all students should know that

1. Healthy choices and decisions regarding sports and lifetime activities require analysis and comparison of health, skill and fitness benefits derived from a variety of activities. (HP 2)
2. Assessment of current fitness levels, establishing, monitoring and adjusting fitness goals and development and implementation of a personal fitness plan to meet current and future needs is necessary for the maintenance of personal fitness. (HP 2, 4)
3. To acquire fitness for life development of the desire to participate in daily fitness activities must occur. (HP 4)
4. Basic physiological principles related to exercise enhance the development of personal fitness and should be included when designing fitness plans. (HP 1, 3, 4)

By the end of grade 12, all student should be able to

- a. make personal fitness choices by comparing and contrasting the components of health-related fitness and skill-related fitness and the benefits each offers to the development of total fitness (3.8; 4.1; 4.7)
- a. demonstrate the skill, knowledge, and desire to monitor and adjust activity levels to meet personal fitness needs. (4.5)
- a. participate regularly in health-enhancing fitness activities independent of teaching mandates (4.7)
- b. independently and willingly participate in games, sports, dance, outdoor pursuits and other physical activities that contribute to the attainment of personal goals and maintenance of wellness (4.7)
- a. apply the acronym FIT (frequency, intensity, time) and the principles of overload, progression and specificity to a personal fitness plan (3.1)

- Make a list of activities participated in over the years. Rank order the activities in terms of personal preference, denote which activities are skill related and those which are health related. Interpret the results by describing in written form which preferences are most appropriate for lifetime wellness.
- Using a health-related fitness test to assess personal fitness levels, set fitness goals and develop a plan for self-improvement; continue assessment periodically to guide changes in the physical activity program (4.5)
- Keep a journal of physical activities participated in on a daily basis. Record description of feelings when personal goals are met.
- Using the principles of overload, progression and specificity, design a weight training program based on self-assessment.
- Using FIT, create a chart to analyze a personal fitness plan by establishing areas of strengths and concerns in the plan.

V. Physical Activity and Lifetime Wellness

What All Students Should Know	What All Students Should Be Able To Do	Sample Learning Activities
<p>5. Wellness refers to the quality of life involving the interactions of the physical, intellectual, emotional, social, and vocational dimensions of the individual. (HP 1, 4)</p>	<p>a. identify both short-term and long-term effects of stress upon the individual (3.1)</p> <p>b. participate in a variety of self-selected activities that aid in stress management (4.7)</p> <p>c. determine the relationship between nutrition, exercise, and weight control by identifying nutrition and exercise as an essential element of weight control and by distinguishing between factual and fictitious ideas about weight control (3.7)</p> <p>d. evaluate the negative aspects of chemical dependency upon the body in relationship to wellness (1.6)</p>	<ul style="list-style-type: none"> • Conduct a personal stress assessment. Based upon the results of the assessment, determine a plan for activities that will aid in stress management including at least one physical activity. • Using computer software, perform a diet analysis and determine deficiencies. • Using a previously established exercise plan and diet analysis from computer software, create a plan of weight management. • In cooperative groups discuss the relationship between drug use and adolescent suicide, homicide and other acts of violence. Establish to what degree a healthy lifestyle discourages involvement in health risk behaviors.

B. Responsible Personal and Social Behavior in Physical Activity Settings

What All Students Should Know

What All Students Should Be Able To Do

Sample Learning Activities

By the end of grade 12, all students should know that

1. Safety practices, rules and etiquette for various physical activities in both group and individual settings is essential in developing responsible personal and social behavior. (HP 4)
2. Problem solving and decision making are essential components of social responsibility in physical activities. Decisions regarding social relationships are made based on personal choices but may impact others. (HP 2, 4)
3. Participation in physical activity fosters appreciation of cultural, ethnic, gender, and physical diversity. Strategies for including others from diverse backgrounds and those with physical diversities should be utilized in activity selection throughout the lifespan. (HP 4)

By the end of grade 12, all student should be able to

- a. independently create a safe environment for skill practice (1.10)
- b. accept a responsible leadership role by modeling and encouraging others to apply appropriate etiquette in physical activity settings (4.3)
- a. demonstrate mature personal control by acting as a neutralizer in avoiding conflict or as a mediator in settling conflict (4.7)
- b. compare and contrast, individually and collaboratively, how attitudes, actions, and personal choice can affect themselves, family members, and others (1.1)
- a. develop strategies for including persons of diverse backgrounds and abilities in physical activity (3.2)

- Design an individual weight training program listing specific safety practices for each station.
- In group discussion, analyzes ways individuals affect team play by identifying participation factors such as fair play, sportsmanship, etiquette and team play.
- Discuss common communication problems and conflicts which occur during team play. In small groups, develop strategies to solve problems and conflicts during activities. Share the strategies with the class, use during play and verify their level of helpfulness.
- Identify causes of conflict in an activity setting. Brainstorm possible solutions. Using these scenarios, role-play conflict mediation skills.
- Brainstorm factors that affect choices you make as activity patterns change over the lifecycle. Identify physical activity options available in the community. Determine if the options match needs with the community such as socioeconomic status, age, gender. Prepare a display which illustrates the findings.

C. Injury Prevention/Treatment and Rehabilitation

What All Students Should Know

What All Students Should Be Able To Do

Sample Learning Activities

By the end of grade 12, all students should know that

1. Exercise-related injuries can be reduced if prevention strategies such as warm-up and cool-down, proper skill technique, use of protective equipment and proper conditioning are employed. The ability to discern between myth and fact is also an important injury prevention strategy. (HP 4)
2. Proper treatment for exercise-related injury aids in recovery rate for return to exercise. Following proper treatment procedures is important for individuals. Administering emergency treatment to others such as basic first aid and CPR is important. An awareness of how to activate Emergency Medicine System (EMS) is also necessary. (HP 4, 5)
3. Rehabilitation for an exercise-related injury is paramount for an efficient recovery and return to exercise. Regaining range of motion, strength and coordination and sports-specific movement are included in the hierarchy of rehabilitation. (HP 4)

By the end of grade 12, all student should be able to

- a. use proper injury prevention techniques during practice and game play (4.7)
- b. gain an understanding of exercise-related injuries and maladies such as sprains, strains, wounds, and exercise induced asthma (1.10)

- a. distinguish between life-threatening and non-life-threatening injuries and when to seek medical attention (1.10)
- b. demonstrate competence in basic first aid and CPR (4.7)

- a. display an awareness of when to seek medical advice for rehabilitation and the importance of following rehabilitation protocol (1.10)

- Develop an injury prevention program for a specific sport or activity.

- Given scenerios of exercise-related injuries, students will determine injury type using the following.
 - (1) life-threatening or non-life-threatening injury
 - (2) musculoskeletal injuries such as sprain or strain
 - (3) head and spinal injury.
 Determine appropriate treatment (e.g., RICE, or medical care or EMS). (Cooperative groups can be used for this activity.)

- Visit a sports medicine clinic to observe modalities used in rehabilitation and gain an awareness of requirements needed for a career in sports medicine.