



Middle Years Human Ecology

Manitoba Curriculum
Framework of Outcomes



MIDDLE YEARS HUMAN ECOLOGY

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This resource is available on the Manitoba Education and Advanced
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Available in alternate formats upon request.

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Members of the Development Team

Claire Normandeau

Ecole/Collège régional Gabrielle-Roy Division scolaire franco-manitobaine
--

Sheila Stark-Perreault, PHEc

East Selkirk Middle School Lord Selkirk School Division
--

Darlene Smith

Highbury School Louis Riel School Division

Alison Delf-Timmerman, PHEc

Treherne Collegiate Prairie Spirit School Division

Corinne Doerksen

Lincoln Middle School St. James-Assiniboia School Division

Dr. Orest Cap

Faculty of Education University of Manitoba
--

**School Programs Division,
Manitoba Education and Advanced
Learning Staff**

Louise Boissonneault
Coordinator

John Finch
Coordinator

Lynn Harrison
Desktop Publisher

Susan Lee
Project Leader

Grant Moore
Publications Editor

Ken Nimchuk
Consultant

Document Production Services Unit
Educational Resources Branch

Learning Support and Technology Unit
Instruction, Curriculum and Assessment Branch

Document Production Services Unit
Educational Resources Branch

Distance Learning Unit
Instruction, Curriculum and Assessment Branch

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Educational Resources Branch

Learning Support and Technology Unit
Instruction, Curriculum and Assessment Branch

TECHNOLOGY EDUCATION: HUMAN ECOLOGY

Technology education provides students with opportunities for solving problems, designing, performing essential life skills, constructing products, and addressing current trends and issues. Students use and study technology to create practical solutions to problems—individually or in groups—to develop technical skills, knowledge, and attitudes.

Technology education enables students to explore their ideas, gain practical experiences, and work through thinking processes in a safe and supportive environment. The ability to adapt to a changing technological society and to accept social responsibility is paramount to all Manitobans in the pursuit of new careers and lifestyles. Technology education allows learners to evaluate their strengths and interests in career choices. It also reflects rapid changes in the workplace and allows students to make informed decisions about their future.

Technology education includes the courses found in the subject area of human ecology.

Human Ecology

This document replaces the previous home economics curriculum, *Home Economics 7-9, 1982 (1985 reprint)*, and with this renewal comes a new subject name: human ecology. The change in this new curriculum is significant, so a name change is a natural progression.

The name change reflects the evolving educational landscape while preserving the original home economics perspectives. This is illustrated in the new human ecology logo, which depicts the sprouting of stems and the unfurling of leaves.



Rationale

Our society is dependent upon youth and their ability to be successful, not only in the workplace but also in their homes and personal lives. Our economy will continue to be driven by globalization, demographic shifts, and technological advances. These changes will create challenges and opportunities for the next generation that will affect all individuals and their roles in society.

Human ecology is a holistic, multi-dimensional systems approach that empowers individuals to create thriving families and dynamic communities.

Mission

The goal of **human ecology** is for students to

- discover knowledge that enhances the quality of people's daily lives
- explore and apply experiential learning
- integrate the principles of preventative, proactive, and practical approaches to support individuals throughout their lives

Vision

Human ecology education strives to

- enhance personal well-being
- develop and apply technical, communicative, and thinking skills
- cultivate skills to participate in a dynamic society

Engaging Students through Life/Work Experiential Learning

Middle Years programming that is experiential and makes connections to students' current and future lives promotes student engagement in learning. Manitoba defines Middle Years programming as the education provided for young adolescents in Grades 5, 6, 7, and 8.

The most crucial decisions in Middle Years education relate to meeting the intellectual, physical, social, emotional, spiritual, and ethical needs of young adolescents and to reflecting the characteristics of these young people who are experiencing rapid change during this stage of development.

Characteristics of Middle Years Students

Young adolescence is an important developmental stage when students are very interested in exploring who they are and in learning more about themselves. During the Middle Years, young adolescents

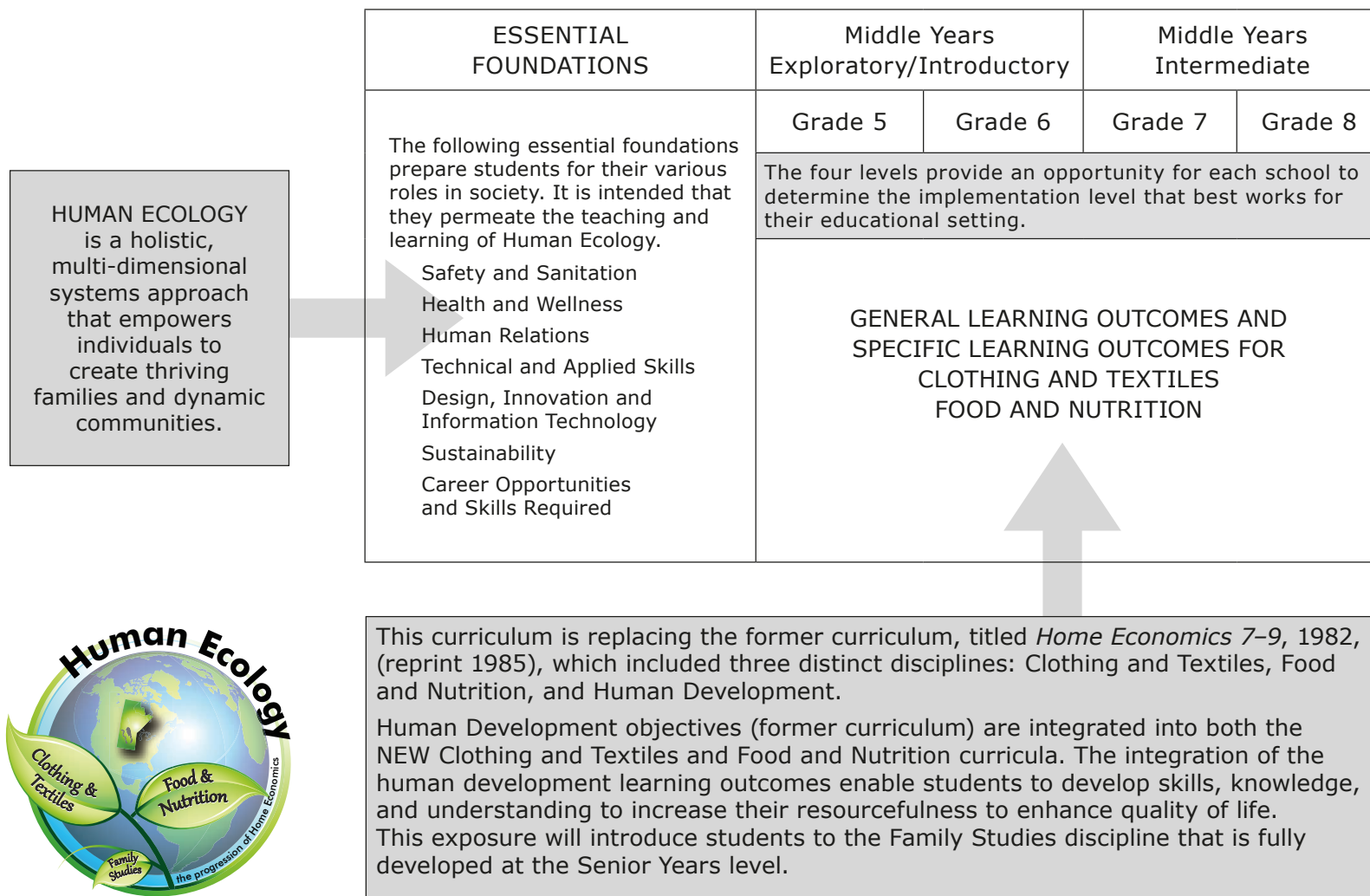
- search for greater autonomy and independence
- experience the onset of puberty and physical and sexual maturation
- are interested in learning about and developing their interests, learning styles, strengths, abilities, and talents
- prefer active learning over passive learning
- develop their own personal/social values
- are influenced by media, popular culture, and adult values
- seek personal validation through relationships with peers and adults
- need to see the relevance of what they are learning and apply their personal abilities and interests

The Ideal Learning Climate

The learning climate in a Middle Years classroom is a major factor in increasing student engagement and achievement. Learning experiences that best engage Middle Years students

- enable students to feel safe, included, and challenged
- honour the diversity of learners
- encourage active student involvement, both physical and cognitive
- show direct, relevant connections to life outside the classroom
- offer students opportunities to engage in work that involves real-world issues
- offer students opportunities to make authentic contributions to their classroom, school, and the larger community, thereby allowing them to experience the impact of their work
- depict a sense of fairness and equity

Middle Years Human Ecology: Manitoba Curriculum Framework of Outcomes



Middle Years Human Ecology: Manitoba Curriculum Framework of Outcomes is intended to provide a guide for curriculum implementation. The emphasis is on practical applications and instructional purposes. The learning outcomes in each area of study and their sequence can vary based on the activities within the course.

The framework consists of the following:

- Course titles/descriptions
- Course grade levels
- Time allocation
- Curriculum organization
- Cross-curricular learning outcomes
- Safety-related learning outcomes
- Teacher and administrator safety implications
- Curriculum implementation dates

Course Titles/Descriptions

This curriculum replaces the former curriculum, *Home Economics 7-9, 1982 (reprint 1985)*, which included three distinct disciplines: clothing and textiles, food and nutrition, and human development.

Clothing and Textiles

The clothing and textiles topic creates awareness of the role that clothing and textiles play in our daily lives. The learning outcomes develop skills, knowledge, and understanding as students participate in learning activities that allow them to express themselves through designing, producing, and evaluating finished textile projects.

Food and Nutrition

The food and nutrition topic teaches about healthy relationships with food through theoretical and practical food experiences. A study of food and nutrition can expose students to accurate information and provide opportunities for them to gain competence in making informed choices. The learning outcomes develop skills, knowledge, and understanding of basic food preparation and nutrition.

Human Development

Human development objectives from the previous curriculum are integrated into both the new clothing and textiles learning outcomes and the food and nutrition learning outcomes. The integration of the human development learning outcomes enables students to develop skills, knowledge, and understanding to increase their resourcefulness to enhance their quality of life. This exposure will introduce students to the family studies discipline that is fully developed at the Senior Years level.

Course Grade Levels

Each grade requires that students develop their conceptual knowledge base and skill set. Some learning outcomes will be similar for all four levels; in other situations, each level will build on previous knowledge and progress from simple to more complex conceptual understandings.

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8

The four levels provide an opportunity for each school to determine the implementation level that best works for their educational setting. This curriculum attempts to meet the needs of all learners in Manitoba, no matter where on the grade continuum they may belong (e.g., some divisions offer human ecology starting in Grades 5/6 while others offer it starting in Grades 7/8).

Time Allocation

Time allotment tables describe the expectations for the subject area time allotments in the English Program. An overall percentage breakdown is given only as a guideline and reflects a change from the total time in minutes for compulsory and optional subject areas. For more information, see <www.edu.gov.mb.ca/k12/cur/timeallotments.html>.

Curriculum Organization

Curriculum Goals

Curriculum goals outline the major curriculum components in addition to the general or across-the-curriculum learning goals for the subject area.

Learning Outcomes

Learning outcomes are statements that indicate what students will know or be able to do by the end of the course or as a result of a learning activity. Learning outcomes are usually expressed as knowledge, skills, or understanding. Learning outcomes should be student-focused and clearly outline knowledge, skills, or understanding being assessed. Within each subject area, each course contains general and specific learning outcomes that address a particular area of study related to a subject area.

In developing learning outcomes, the assumption was made that courses are taught by experts in their field; therefore, the terminology and language used in the curriculum is specific to the area of expertise.

General Learning Outcomes

General learning outcomes (GLOs) are overarching statements about what students are expected to learn in each course. They identify broad categories of knowledge, skills, and understandings that students are expected to learn and to be able to demonstrate in a subject area or course.

All general learning outcomes are identified with two numbers, indicating the subject area goal and the general learning outcome. For example, GLO 1.1 is the first general learning outcome under Goal 1.

Specific Learning Outcomes

Specific learning outcomes (SLOs) are statements that identify the specific knowledge, skills, and understandings that students are required to attain by the end of a given course. Some learning outcomes will be revisited several times during a course to allow for connections to be made to other outcomes in the course.

SLOs do not specify the learning activities in which students will participate in order to attain them. In most courses, the emphasis is on applied learning activities. Teachers are advised to select learning activities best suited to teach the SLOs, based on a variety of factors including access to resources or regional needs. In light of rapid changes in technology, teachers are encouraged to update their learning activities in order to meet the needs of students.

SLOs are not necessarily sequential. In other words, they might be taught in an order different from how they appear in the document.

All specific learning outcomes are identified with a sequence of numbers separated by dots. These characters code the general learning outcome and specific learning outcomes. For example, SLO 1.1.1 is the first specific learning outcome under GLO 1.1.

Cross-Curricular Outcomes

Human ecology outcomes are interdisciplinary by their very nature and provide unique and alternate opportunities that can support and enhance concepts and processes in other disciplines. Linking the human ecology content to other content areas supports its relevancy by ensuring meaningful connections can be made between knowledge in curricula to real-life applications (as identified in Appendix 1).

Safety-Related Learning Outcomes

Schools need to offer human ecology activities that are educationally rewarding and relevant to both students' lives and possible future careers in a safe environment. These desired goals can only be achieved through team effort involving all of those who set and administer school policies, design and maintain the learning environment, plan and deliver human ecology lessons, and select and prepare the materials used.

Human ecology teachers must reinforce safety as a priority to students. The specific learning outcomes related to safety are expressed explicitly in each course, but safety should be integrated throughout all courses and reinforced continually. Because of the importance of safety training, development team members have concluded that, with a few exceptions, teachers need to teach and assess safety in every course in their subject area. Therefore, all safety-related SLOs are repeated in both subject areas.

The goal of the *Safety in Middle Years Human Ecology* section (Appendix 2) is to bring together information needed by principals, planners, teachers, and support staff to help them make sound decisions regarding safety. The document identifies areas for decision making and action at a variety of levels. It supports planning and action by providing information on safety legislation and standards, safety hazards, and examples of procedures for eliminating or minimizing hazards.

Teacher and Administrator Safety Implications

Principals and classroom teachers must be aware of accident/injury liability and negligence statements found in *The Public Schools Act*, as well as in the document *Administrative Handbook, School Administration: Negligence and Liability* published by Manitoba Education and Advanced Learning. For more information, see <www.edu.gov.mb.ca/k12/docs/policy/admin/school_admin.pdf>.

Below is segment N1 from the *Administrative Handbook* (January 2010), which includes a three-page section of reference on negligence and liability.

If students are to be placed in situations where the potential for injury exists, appropriate skills training and safety briefings must take place, and safety regulations must be conscientiously enforced. In addition, school officials are legally obligated to see that any facilities and equipment used are in a safe condition. Particular caution should be exercised with regard to physical education equipment, playground equipment, vocational/industrial shops, etc.

Curriculum Implementation Dates

During the voluntary Implementation year, teachers in Manitoba have the option of teaching the new draft curriculum the year before it is mandatory. They also have the choice to continue to teach the old curriculum during that year. Course codes for the new courses will be available and can be found in the *Subject Table Handbook*.

Under **system-wide implementation**, all human ecology teachers in Manitoba teach the new curriculum. Teachers will no longer be able to use the old codes.

As of Spring 2015, the *Middle Years Human Ecology: Manitoba Curriculum Framework of Outcomes* is available on the Manitoba Education and Advanced Learning website.

Date	Voluntary Implementation	System-Wide Implementation
Spring 2015	Draft available on website	
Fall 2015	X	
Fall 2016		X

Learning Resources

Teams of teacher-evaluators nominated from Manitoba schools examine publishers' submissions, evaluate learning resources, and make recommendations regarding the suitability of resources for Manitoba classrooms. The Middle Years Human Ecology learning resource shortlists or bibliographies are available at <www.edu.gov.mb.ca/k12/learnres/index.html#educators>.



GRADES 5 TO 8 CLOTHING AND TEXTILES

Manitoba Curriculum
Framework of Outcomes

GRADES 5 TO 8 CLOTHING AND TEXTILES

Each grade requires students to develop a conceptual knowledge base and skill set. Some learning outcomes will be similar for all four levels; in other situations, each level will build on previous knowledge and will progress from simple to more complex conceptual understanding.

Outcomes marked with an asterisk (*) have been reproduced from *The Ontario Curriculum Grades 9 to 12 Social Sciences and Humanities* under its terms for non-commercial reproduction.

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8
Goal 1: Demonstrate understanding of safety and sanitation.			
GLO 1.1: Demonstrate appropriate hygienic handling practices.			
5.1.1.1 Identify and maintain clean work environments.	6.1.1.1 —→	7.1.1.1 —→	8.1.1.1 —→
GLO 1.2: Create and maintain a safe working environment.			
5.1.2.1 Identify and demonstrate safe behaviour within the work area.	6.1.2.1 —→	7.1.2.1 —→	8.1.2.1 —→
5.1.2.2 Identify and demonstrate safe set-up, handling, and usage of tools, equipment, appliances, materials, and chemicals.	6.1.2.2 —→	7.1.2.2 —→	8.1.2.2 —→

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8
Goal 1: Demonstrate understanding of safety and sanitation. <i>(continued)</i>			
GLO 1.2: Create and maintain a safe working environment. <i>(continued)</i>			
5.1.2.3 Identify and describe precautionary safety measures for dangerous situations (e.g., recognize ways to prevent accidents; correct any potential for accidents).	6.1.2.3 →	7.1.2.3 →	8.1.2.3 →
5.1.2.4 Identify and know how to respond appropriately to common accidents (e.g., determine correct course of action [minor vs. major accident] and use appropriate care for minor accidents like cuts/burns/needle injuries; recognize location of and proper use of first-aid supplies and fire-safety devices; recognize safety regulations).	6.1.2.4 →	7.1.2.4 →	8.1.2.4 →

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8

Goal 1: Demonstrate understanding of safety and sanitation. *(continued)*

GLO 1.3: Demonstrate safe and hygienic handling practices.

5.1.3.1 Demonstrate the responsible use of textile media (e.g., dyes, paints) and fabric application techniques (e.g., iron-ons, transfers).	6.1.3.1 →	7.1.3.1 →	8.1.3.1 →
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Goal 2: Demonstrate understanding of health and wellness.

GLO 2.1: Develop understanding of the relationship between clothing and textiles and the human body.

5.2.1.1 Identify basic textile terminology (e.g., fibres, yarns, and fabric).	6.2.1.1 →	7.2.1.1 →	8.2.1.1 →
5.2.1.2 List sources of fibres (e.g., plant, animal, mineral, and chemical).	6.2.1.2 →	7.2.1.2 →	8.2.1.2 →
5.2.1.3 Identify natural vs. man-made fibres.	6.2.1.3 →	7.2.1.3 Categorize what adolescents are wearing into either natural or man-made fibres (or both/blends).	8.2.1.3 →
5.2.1.4 Describe methods of fabric construction (e.g., woven, knit, felt, etc.).	6.2.1.4 →	7.2.1.4 Identify fabric construction as it relates to its intended use.	8.2.1.4 →

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8
Goal 2: Demonstrate understanding of health and wellness. <i>(continued)</i>			
GLO 2.1: Develop understanding of the relationship between clothing and textiles and the human body. <i>(continued)</i>			
		7.2.1.5 Identify the effect that fibres have on fabrics (e.g., cotton is absorbent, wool is warm, polyester wears well and is wrinkle-resistant, etc.).	8.2.1.5 —→
		7.2.1.6 Describe a variety of fibre/fabric finishes and dyes and their effect on textile products (e.g., wet-wicking, flame-retardant, wrinkle-resistant, fibre-dyed, yarn-dyed, etc.).	8.2.1.6 —→
		7.2.1.7 Explain how some fibres or fabrics affect physical well-being (e.g., fleece may be irritating, wool may be itchy, allergies to latex, wool socks for cold feet, etc.).	8.2.1.7 —→
		7.2.1.8 Describe fabric uses (e.g., work, sports, wet-wicking for sportswear, business wear, leisure/casual wear, high thread count for bedding, etc.).	8.2.1.8 —→

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8
Goal 2: Demonstrate understanding of health and wellness. <i>(continued)</i>			
GLO 2.2: Develop label literacy.			
5.2.2.1 Describe textile labels as a source of information (e.g., labels, hang tags, logos, etc.).	6.2.2.1 Identify key elements on textile labels (e.g., care, fibre content, country of origin, size, etc.).	7.2.2.1 Analyze how each element on a textile label can be used to seek specific information or to compare textile products (e.g., fibre content for seeking allergens; how to care for item, such as washing vs. dry cleaning; country of origin for global connections; international sizing systems vary from country to country).	8.2.2.1 —→
		7.2.2.2 Interpret a variety of symbols on a care label.	8.2.2.2 Apply knowledge of care label symbols to a variety of textile products.
		7.2.2.3 Create a label, hang tag, or logo for a textile project.	8.2.2.3 —→

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8
Goal 2: Demonstrate understanding of health and wellness. <i>(continued)</i>			
GLO 2.2: Develop label literacy. <i>(continued)</i>			
		7.2.2.4 Describe ways, including environmentally responsible ways, to care for garments to maintain their appearance and extend their life (e.g., with respect to following clothing care labels; laundering, ironing, removing stains, using environmentally responsible detergents and stain removal practices).*	8.2.2.4 →
GLO 2.3: Develop understanding of influences on clothing/textile choices.			
5.2.3.1 Describe the difference between needs and wants as they relate to clothing/textile choices.	6.2.3.1 Identify current clothing/textile choices as needs or wants.	7.2.3.1 Identify current adolescent clothing/textile choices as needs or wants.	8.2.3.1 →

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8
Goal 2: Demonstrate understanding of health and wellness. <i>(continued)</i>			
GLO 2.3: Develop understanding of influences on clothing/textile choices. <i>(continued)</i>			
5.2.3.2 Describe factors that influence people's clothing/textile choices (e.g., dress codes, family, peers, media, fibre content and comfort, cultural, emotional, environmental, religious, social, ethical, economical).	6.2.3.2 Identify factors that influence people's clothing/textile choices.	7.2.3.2 Identify factors to what influences current adolescent clothing/textile choices.	8.2.3.2 Analyze and reflect on factors that influence personal clothing/textile choices.
5.2.3.3 Describe how various media are used to promote clothing/textile purchases (e.g., flyers, magazines, billboards, radio, television, the Internet, social media).	6.2.3.3 →	7.2.3.3 Describe how various media influence current adolescent clothing/textile choices (e.g., marketing strategies).	8.2.3.3 Assess how various media influence personal clothing/textile choices.
		7.2.3.4 Describe the ability of clothing/textiles to satisfy physical and socio-emotional needs (e.g., protection garments, comfort, sportswear, dressing for status, identification with peers, etc.).	8.2.3.4 →

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8
Goal 2: Demonstrate understanding of health and wellness. <i>(continued)</i>			
GLO 2.3: Develop understanding of influences on clothing/textile choices. <i>(continued)</i>			
		7.2.3.5 Explain how various resources influence clothing/textile choices (e.g., knowledge, time, skill, equipment, and finances).	8.2.3.5 —→
		7.2.3.6 Identify current clothing/textile trends and fads.	8.2.3.6 Determine the influences behind current clothing/textile trends and fads.
		7.2.3.7 List ways in which media manipulate and distort images/messages as they relate to clothing/textiles (e.g., digital manipulation).	8.2.3.7 —→

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8

Goal 2: Demonstrate understanding of health and wellness. *(continued)*

GLO 2.3: Develop understanding of influences on clothing/textile choices. *(continued)*

8.2.3.8 Outline strategies for achieving and maintaining a positive body image and attitude towards clothing/textiles (e.g., critically examining media messages, becoming educated about trends, using positive self-talk, setting priorities, participating in varied activities, talking with others).

8.2.3.9 Analyze shopping behaviours (e.g., retail formats, quality, clothes swapping, thrift stores).

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8
Goal 3: Demonstrate understanding of human relations.			
GLO 3.1: Explore human relations as they apply to clothing and textiles.			
5.3.1.1 Identify current clothing and textile trends.	6.3.1.1 Identify current adolescent clothing and textile trends.	7.3.1.1 Describe local, regional, and global clothing and textile trends.	8.3.1.1 —→
5.3.1.2 Identify the significance of clothing and textiles in a social setting (e.g., dress codes, roles, non-verbal communication, first impressions).	6.3.1.2 —→	7.3.1.2 Explain the significance of clothing and textiles to adolescent social settings.	8.3.1.2 Explain the significance of clothing and textiles in personal and global social settings.
5.3.1.3 Describe the role that clothing and textiles play in getting to know and understand others of similar and different cultures.	6.3.1.3 Identify ways in which clothing and textiles help us understand others of similar and different cultures.	7.3.1.3 Evaluate ways in which adolescents might use clothing and textiles to relate with other adolescents of similar and different cultures (e.g., understanding of why others dress differently).	8.3.1.3 —→
5.3.1.4 List and describe the multicultural origins of clothing and textiles in Manitoba (e.g., influence of colonization and assimilation).	6.3.1.4 —→	7.3.1.4 List and describe the multicultural origins of clothing and textiles.	8.3.1.4 —→

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8
Goal 3: Demonstrate understanding of human relations. <i>(continued)</i>			
GLO 3.1: Explore human relations as they apply to clothing and textiles. <i>(continued)</i>			
5.3.1.5 Identify and explore cultural symbolism related to clothing and textiles (e.g., motifs, patterns).	6.3.1.5 →	7.3.1.5 →	8.3.1.5 →
5.3.1.6 Identify and explain the use of traditional dress (e.g., celebrations, ceremonies, competitions).	6.3.1.6 →	7.3.1.6 →	8.3.1.6 →
		7.3.1.7 Identify and explain local, regional, and global clothing and textile perspectives (e.g., levels of modesty, acceptance).	8.3.1.7 →

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8

Goal 4: Demonstrate technical and applied skills.

GLO 4.1: Demonstrate literacy and numeracy skills as they apply to clothing and textiles: equipment and tools.

5.4.1.1 Identify equipment and tools and their functions as required for a variety of projects (e.g., cutting, pins, needles, measuring tape, iron).	6.4.1.1 —→	7.4.1.1 Select suitable equipment and tools required for a project.	8.4.1.1 Analyze equipment and tools in order to choose the most appropriate ones for a project (e.g., choosing between shears and a rotary cutter).
5.4.1.2 Identify gradations on a variety of measuring tools (e.g., measuring tape or gauge).	6.4.1.2 Identify and use the appropriate measuring tool for the task.	7.4.1.2 —→	8.4.1.2 —→
5.4.1.3 List imperial and metric abbreviations on basic tools.	6.4.1.3 List imperial and metric abbreviations on a variety of measuring tools.	7.4.1.3 —→	8.4.1.3 —→
5.4.1.4 Name heat settings (e.g., iron/pressing).	6.4.1.4 —→	7.4.1.4 Relate use of appropriate heat settings to project material(s).	8.4.1.4 —→
5.4.1.5 List the main parts of a sewing machine (e.g., hand wheel, needle plate).	6.4.1.5 Identify the main parts of the sewing machine and describe their functions.	7.4.1.5 —→	8.4.1.5 —→
	6.4.1.6 Demonstrate the appropriate use of the sewing machine.	7.4.1.6 —→	8.4.1.6 —→

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8

Goal 4: Demonstrate technical and applied skills. *(continued)*

GLO 4.1: Demonstrate literacy and numeracy skills as they apply to clothing and textiles: equipment and tools. *(continued)*

		7.4.1.7 Identify and describe the main parts of specialty machine(s) and their functions.	8.4.1.7 —→
		7.4.1.8 Demonstrate the appropriate use of the machine (e.g., serger, appliqué, embroidery, computer-assisted machines).	8.4.1.8 —→

****GLO 4.2:** Demonstrate literacy and numeracy skills as they apply to clothing and textiles: patterns and materials.

5.4.2.1 Identify basic textile terminology with a pattern/project.	6.4.2.1 —→	7.4.2.1 —→	8.4.2.1 —→
5.4.2.2 Identify units of measurement (e.g., cm, inches).	6.4.2.2 Add and subtract a variety of metric and imperial measurement units.	7.4.2.2 Apply basic math principles of multiplication and division to a pattern/project.	8.4.2.2 —→
5.4.2.3 Identify metric and imperial measurement in a pattern/project.	6.4.2.3 —→	7.4.2.3 Identify and use metric and imperial measurement in a pattern/project.	8.4.2.3 —→
5.4.2.4 Identify basic pattern symbols (e.g., notches, grainline, place on fold).	6.4.2.4 —→	7.4.2.4 Demonstrate use of basic pattern symbols.	8.4.2.4 —→

** The imperial measurement system is new to the student and is covered in the Grade 10 Mathematics curriculum.
Adding and subtracting fractions is new to the student and is covered in the Grade 7 Mathematics curriculum.

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8
Goal 4: Demonstrate technical and applied skills. <i>(continued)</i>			
GLO 4.2: Demonstrate literacy and numeracy skills as they apply to clothing and textiles: patterns and materials. <i>(continued)</i>			
5.4.2.5 Demonstrate basic preconstruction procedures as applied to the project (e.g., fabric preparation, pattern layout, pinning, cutting, marking techniques).	6.4.2.5 →	7.4.2.5 →	8.4.2.5 →
5.4.2.6 Identify and demonstrate cutting techniques as required for the project (e.g., shears, rotary cutting, grading).	6.4.2.6 →	7.4.2.6 Select and demonstrate the appropriate cutting techniques as required for the project.	8.4.2.6 →
		7.4.2.7 Demonstrate correct body-measuring techniques that are accurate enough to achieve the intended results.	8.4.2.7 →
		7.4.2.8 Demonstrate the ability to research and use a variety of pattern sources (e.g., live streaming, social media, print).	8.4.2.8 →
		7.4.2.9 Interpret information related to the project (e.g., pattern envelope, apps, website).	8.4.2.9 →

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8

Goal 4: Demonstrate technical and applied skills. *(continued)*

GLO 4.3: Demonstrate literacy and numeracy skills as they apply to clothing and textiles: construction fundamentals.

5.4.3.1 Identify basic construction vocabulary as required for the project (e.g., terms, techniques, temperature setting).	6.4.3.1 →	7.4.3.1 Use appropriate construction vocabulary for clear communication and understanding as required for the project.	8.4.3.1 →
5.4.3.2 Interpret and apply construction directions (e.g., using text and/or images).	6.4.3.2 →	7.4.3.2 →	8.4.3.2 →
5.4.3.3 Identify and demonstrate matching and pinning techniques as required for the project assembly.	6.4.3.3 →	7.4.3.3 →	8.4.3.3 →
5.4.3.4 Demonstrate basic hand sewing and/or machine construction procedures as applied to the project (e.g., sample and practice seams, seam finishes, ironing/pressing).	6.4.3.4 →	7.4.3.4 →	8.4.3.4 →

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8
Goal 4: Demonstrate technical and applied skills. <i>(continued)</i>			
GLO 4.3: Demonstrate literacy and numeracy skills as they apply to clothing and textiles: construction fundamentals. <i>(continued)</i>			
5.4.3.5 Produce projects using hand and/or machine sewing techniques (e.g., a one-dimensional project such as a bookmark with button).	6.4.3.5 Produce projects using hand and/or machine sewing techniques (e.g., a two-dimensional project such as a pillow or stuffed animals).	7.4.3.5 Produce projects using hand and/or machine sewing techniques (e.g., a three-dimensional project such as a garment or accessory).	8.4.3.5 Produce projects using hand and/or machine sewing techniques (e.g., a three-dimensional project such as a garment or accessory).
5.4.3.6 Demonstrate basic post-construction procedures as applied to the project (e.g., trimming, pressing, clean final product).	6.4.3.6 —→	7.4.3.6 —→	8.4.3.6 —→
		7.4.3.7 Demonstrate the ability to repair and/or alter personal clothing or accessories using basic sewing skills (e.g., apply an appliqué/patch, replace a button, alter a hem, repair a seam).	8.4.3.7 —→

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8

Goal 5: Demonstrate understanding of design, innovation, and information technology.

GLO 5.1: Demonstrate familiarity with technological developments and trends in the clothing and textile industry.

8.5.1.1 Describe the history and evolution of clothing (e.g., e-textiles, smart fabrics).

8.5.1.2 Identify trends driving the clothing and textile industry (e.g., electronic implants, clothing, medical, military, space, sports).

8.5.1.3 Analyze that technology is a way of solving problems in response to human needs (e.g., thermal wear).

8.5.1.4 Provide examples of clothing- and textile-related technologies from the past, and describe how they have evolved over time.

8.5.1.5 Describe positive and negative effects of scientific and technological clothing-related endeavours. *Include: effects on themselves, society, the environment, and the economy*

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8
Goal 5: Demonstrate understanding of design, innovation, and information technology.. <i>(continued)</i> GLO 5.1: Demonstrate familiarity with technological developments and trends in the clothing and textile industry. <i>(continued)</i>			
		8.5.1.6 Discuss societal, environmental, and economic impacts of scientific and technological clothing- and textile-related endeavours. <i>Include: local and global impacts</i>	
		8.5.1.7 Investigate opportunities to design and create clothing products with state-of-the-art technologies (e.g., e-textiles, technology built into textile project, modifications in design to accommodate technology such as channels sewn into garments for technological wiring).	

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8
Goal 5: Demonstrate understanding of design, innovation, and information technology.. <i>(continued)</i>			
GLO 5.2: Demonstrate familiarity with design in the clothing and textile industry.			
5.5.2.1 Identify basic elements of design as they influence a project (e.g., colour and texture).	6.5.2.1 →	7.5.2.1 →	8.5.2.1 Apply basic elements of design as they influence a project (e.g., colour, texture, line, and shape).
5.5.2.2 Describe and/or apply clothing and textile products incorporating fabric art techniques (e.g., batik, dye, embroidery, appliqué, beading).	6.5.2.2 →	7.5.2.2 →	8.5.2.2 →
			8.5.2.3 Investigate how fabric art techniques are evolving (e.g., digital media, science, and electronics).

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8
Goal 5: Demonstrate understanding of design, innovation, and information technology.. <i>(continued)</i>			
GLO 5.3: Demonstrate familiarity with innovation and information technology in the clothing and textile industry.			
			<p>8.5.3.1 Research innovations and their influence on clothing, textiles, and design (e.g., garment modification to accommodate devices).</p> <p>8.5.3.2 Research current technologies related to digital equipment/devices (e.g., 3-D printer).</p> <p>8.5.3.3 Research current information technology in the home and industry (e.g., apps, smart devices).</p>

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8

Goal 6: Demonstrate understanding of sustainability.

GLO 6.1: Explore clothing security and availability issues as they relate to clothing and textiles.

5.6.1.1 Demonstrate an awareness of the origin of clothing and textile goods.	6.6.1.1 →	7.6.1.1 Identify clothing and textile goods made in Canada.	8.6.1.1 Research production practices in the clothing and textile industry. 8.6.1.2 Identify the components of clothing and textile security (e.g., availability, accessibility, adequacy, acceptability, sustainability). 8.6.1.3 Explain why some people in Canada cannot achieve clothing and textile security (e.g., lack of resources or limited access).
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Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8

Goal 6: Demonstrate understanding of sustainability. *(continued)*

GLO 6.2: Explore social justice and human rights issues as they relate to clothing and textiles.

5.6.2.1 Describe local programs to increase clothing and textile security (e.g., education programs, clothing banks, clothing drives).	6.6.2.1 →	7.6.2.1 →	8.6.2.1 Create an action plan that would demonstrate the sharing of clothing and textiles with others in need in the community.
5.6.2.2 Explain how local programs were originated to increase clothing and textile security and how they continue to strive to do so.	6.6.2.2 →	7.6.2.2 →	8.6.2.2 Evaluate one's own behaviours and whether they show respect for the rights and feelings of others.
5.6.2.3 Investigate how to access and/or contribute to local programs to increase clothing and textile security.	6.6.2.3 →	7.6.2.3 →	8.6.2.3 Identify how clothing and textiles are used to control people (e.g., child labour, gender inequity, cultural values, and beliefs).
		7.6.2.4 Describe behaviours that show respect for the rights and feelings of others (e.g., volunteering or supporting free trade).	8.6.2.4 →

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8
Goal 6: Demonstrate understanding of sustainability. <i>(continued)</i>			
GLO 6.3: Explore environmental matters related to clothing and textiles.			
5.6.3.1 Compare durable goods versus disposable goods in terms of their impact on the environment.	6.6.3.1 →	7.6.3.1 →	8.6.3.1 →
5.6.3.2 Identify ways in which existing clothing and textiles can be re-used (e.g., repurposed, recycled, and upcycled).	6.6.3.2 →	7.6.3.2 →	8.6.3.2 →
5.6.3.3 Produce/create a project by repurposing clothing and textiles (e.g., sock puppets, jeans into bag, skirt, shorts).	6.6.3.3 →	7.6.3.3 →	8.6.3.3 →
GLO 6.4: Explore making informed and responsible consumer decisions related to clothing and textiles.			
5.6.4.1 Describe how to become a responsible consumer by purchasing durable quality goods.	6.6.4.1 →	7.6.4.1 →	8.6.4.1 →
			8.6.4.2 Describe how resources affect consumer choices (e.g., finances, wardrobe planning, decision-making model, availability).

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8

Goal 7: Demonstrate understanding of career opportunities and the skills required.

GLO 7.1: Demonstrate social skills.

5.7.1.1 Actively participate in a positive manner.	6.7.1.1 →	7.7.1.1 →	8.7.1.1 →
5.7.1.2 Present ideas effectively to others.	6.7.1.2 →	7.7.1.2 →	8.7.1.2 →
5.7.1.3 Listen in order to understand and learn.	6.7.1.3 →	7.7.1.3 →	8.7.1.3 →
5.7.1.4 Listen to others to understand their perspectives.	6.7.1.4 →	7.7.1.4 →	8.7.1.4 →
5.7.1.5 Demonstrate a willingness to continuously learn.	6.7.1.5 →	7.7.1.5 →	8.7.1.5 →

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8
Goal 7: Demonstrate understanding of career opportunities and the skills required. <i>(continued)</i>			
GLO 7.2: Demonstrate decision-making skills.			
5.7.2.1 Explain the advantages and disadvantages of some common approaches to decision making.	6.7.2.1 —→	7.7.2.1 —→	8.7.2.1 —→
5.7.2.2 Identify steps in the decision-making process.	6.7.2.2 —→	7.7.2.2 —→	8.7.2.2 —→
5.7.2.3 Describe factors that affect decision making.	6.7.2.3 —→	7.7.2.3 —→	8.7.2.3 —→
5.7.2.4 Distinguish fact from opinion and interpretation in making decisions.	6.7.2.4 —→	7.7.2.4 —→	8.7.2.4 —→
5.7.2.5 Predict and analyze the consequences of decisions.	6.7.2.5 —→	7.7.2.5 —→	8.7.2.5 —→
5.7.2.6 Apply appropriate decision-making processes that reflect fairness and equity in their interactions with others.	6.7.2.6 —→	7.7.2.6 —→	8.7.2.6 —→
5.7.2.7 Use a variety of strategies to resolve conflicts peacefully and fairly with respect for others' ways of life and beliefs.	6.7.2.7 —→	7.7.2.7 —→	8.7.2.7 —→

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8

Goal 7: Demonstrate understanding of career opportunities and the skills required. (*continued*)

GLO 7.3: Demonstrate teamwork.

5.7.3.1 List and define team objectives.	6.7.3.1 →	7.7.3.1 →	8.7.3.1 →
5.7.3.2 Demonstrate an understanding of the role of members of a team.	6.7.3.2 →	7.7.3.2 →	8.7.3.2 →
5.7.3.3 Collaborate with others to establish and carry out group goals and responsibilities.	6.7.3.3 →	7.7.3.3 →	8.7.3.3 →
5.7.3.4 Demonstrate an understanding of one's contribution to her or his group.	6.7.3.4 →	7.7.3.4 →	8.7.3.4 →
5.7.3.5 Acknowledge the opinions and contributions of all team members.	6.7.3.5 →	7.7.3.5 →	8.7.3.5 →
5.7.3.6 Negotiate constructively with others to build consensus and solve problems.	6.7.3.6 →	7.7.3.6 →	8.7.3.6 →

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8
Goal 7: Demonstrate understanding of career opportunities and the skills required. <i>(continued)</i>			
GLO 7.4: Demonstrate time management skills.			
5.7.4.1 Complete all assigned tasks within given time frame.	6.7.4.1 →	7.7.4.1 →	8.7.4.1 →
5.7.4.2 Complete all projects according to specified criteria to produce a quality product.	6.7.4.2 →	7.7.4.2 →	8.7.4.2 →
GLO 7.5: Plan a career related to clothing and textiles.			
5.7.5.1 Identify critical skills needed for employability in today's workplace.	6.7.5.1 →	7.7.5.1 →	8.7.5.1 →
5.7.5.2 Demonstrate an awareness of clothing- and fashion-related occupations and careers (e.g., marketing, designer, retail, production, technology, industry).	6.7.5.2 →	7.7.5.2 →	8.7.5.2 →
5.7.5.3 Demonstrate an awareness of textile-related occupations and careers (e.g., arts, science, technology, industry).	6.7.5.3 →	7.7.5.3 →	8.7.5.3 →
5.7.5.4 Demonstrate an awareness of career opportunities as a home economist/human ecologist.	6.7.5.4 →	7.7.5.4 →	8.7.5.4 →



GRADES 5 TO 8 FOOD AND NUTRITION

Manitoba Curriculum
Framework of Outcomes

GRADES 5 TO 8 FOOD AND NUTRITION

Each grade requires that students develop a conceptual knowledge base and skill set. Some learning outcomes will be similar for all four levels; in other situations, each level will build on previous knowledge and will progress from simple to more complex conceptual understandings.

Outcomes marked with an asterisk (*) have been reproduced from *The Ontario Curriculum Grades 9 to 12 Social Sciences and Humanities* under its terms for non-commercial reproduction. Cross-curricular outcomes that can also be found in the Manitoba science curriculum (i.e., *Grades 5 to 8 Science: Manitoba Curriculum Framework of Outcomes*) are identified accordingly.

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8
Goal 1: Demonstrate understanding of safety and sanitation.			
GLO 1.1: Demonstrate appropriate sanitary practices.			
5.1.1.1 Identify and demonstrate personal hygiene (e.g., washing hands, tying hair back, cleaning, and wearing appropriate clothing).	6.1.1.1 →	7.1.1.1 →	8.1.1.1 →
5.1.1.2 Identify and maintain a sanitary kitchen (e.g., meet established culinary sanitation standards: dishwashing, dish drying, clean workspace).	6.1.1.2 →	7.1.1.2 →	8.1.1.2 →

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8

Goal 1: Demonstrate understanding of safety and sanitation. *(continued)*

GLO 1.2: Create and maintain a safe working environment.

5.1.2.1 Identify and demonstrate safe behaviour within the work area.	6.1.2.1 —→	7.1.2.1 —→	8.1.2.1 —→
5.1.2.2 Identify and demonstrate safe set-up, handling, and usage of tools, equipment, appliances, and chemicals in a kitchen environment.	6.1.2.2 —→	7.1.2.2 —→	8.1.2.2 —→
5.1.2.3 Identify, describe, and demonstrate precautionary safety measures for dangerous situations within the food preparation area (e.g., recognize ways to prevent accidents; correct any potential for accidents).	6.1.2.3 —→	7.1.2.3 —→	8.1.2.3 —→

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8
Goal 1: Demonstrate understanding of safety and sanitation. <i>(continued)</i>			
GLO 1.2: Create and maintain a safe working environment. <i>(continued)</i>			
5.1.2.4 Identify and know how to respond appropriately to common culinary accidents (e.g., determine correct course of action [minor vs. major accident] and use appropriate care [how to care for minor accidents like cuts/burns]; recognize location of and proper use of first-aid supplies and fire-safety devices; recognize safety regulations).	6.1.2.4 →	7.1.2.4 →	8.1.2.4 →
GLO 1.3: Demonstrate safe and sanitary food handling practices.			
5.1.3.1 Identify and demonstrate safe food-handling practices.	6.1.3.1 →	7.1.3.1 Apply principles of food safety.	8.1.3.1 →
5.1.3.2 Identify and demonstrate storage techniques to ensure food safety.	6.1.3.2 →	7.1.3.2 →	8.1.3.2 →
		7.1.3.3 Identify types of food-borne illness, their causes, and their prevention.	8.1.3.3 →

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8

Goal 2: Demonstrate understanding of health and wellness.

GLO 2.1: Develop understanding of the relationship between food and a healthy body.

5.2.1.1 Define the term <i>nutrient</i> .	6.2.1.1 →	7.2.1.1 →	8.2.1.1 →
5.2.1.2 Identify the six key nutrients that contribute to a healthy body (i.e., carbohydrates, protein, fats, vitamins, minerals, water).	6.2.1.2 →	7.2.1.2 List a variety of nutrients within each main nutrient category (e.g., several vitamins, variety of minerals).	8.2.1.2 Categorize a variety of nutrients according to the main nutrient category they belong to (e.g., calcium is a mineral).
5.2.1.3 Identify key nutrients that contribute to the development of healthy body systems (e.g., link key nutrients to the development of healthy digestive, muscular, skeletal, and circulatory systems; calcium helps bones develop; carbohydrates are our main source of energy).	6.2.1.3 Identify key nutrients that contribute to the development of healthy body systems, and recognize food sources of key nutrients (e.g., milk and alternatives provide calcium; vegetables/fruits and grain products provide carbohydrates).	7.2.1.3 Categorize a variety of similar food sources that influence the development of healthy adolescent body systems (e.g., rate/rank a variety of calcium-rich foods required to support adolescent growth spurts; classify carbohydrates as simple or complex and then rank them according to adolescent energy needs/activity levels).	8.2.1.3 Create a personal action plan for developing healthy body systems (e.g., find a recipe or a food product that is an excellent source of calcium to help build teenage bones; find food group foods that would be ideal for pre-activity and post-activity energy recovery).

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8
Goal 2: Demonstrate understanding of health and wellness. <i>(continued)</i>			
GLO 2.1: Develop understanding of the relationship between food and a healthy body. <i>(continued)</i>			
5.2.1.4 Identify official (i.e., government-sanctioned) food guides (e.g., guides that promote overall health and wellness and provide a reference tool for general nutrition analysis, meal planning, and shopping for groceries).	6.2.1.4 —→	7.2.1.4 Describe the benefits of using official food guides for overall adolescent health.	8.2.1.4 Apply official food guides to personal health goals for overall health.
5.2.1.5 Identify official food guides in Canada. <i>Include: Canadian cultures in overview/introduction, such as First Nations, Inuit, and Métis</i>	6.2.1.5 Identify official food guides in Canada, and research a variety of food guides from around the world.	7.2.1.5 Compare and contrast food guides in Canada to food guides around the world.	8.2.1.5 Compare and contrast food guides in Canada with food guides around the world as they relate to classroom composition or student interest (e.g., if class has Korean students, integrate the Korean food guide with Canada's Food Guide).
5.2.1.6 Identify and/or explain the key messages and recommendations in Canada's Food Guide (e.g., food illustrations, foods emphasized, statements about exercise, etc.).*	6.2.1.6 —→	7.2.1.6 —→	8.2.1.6 Apply the key messages and recommendations in Canada's Food Guide to food choices.

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8

Goal 2: Demonstrate understanding of health and wellness. (*continued*)

GLO 2.1: Develop understanding of the relationship between food and a healthy body. (*continued*)

5.2.1.7 Identify diverse foods within each of the food groups, as described in Canada's Food Guide (e.g., non-dairy sources of calcium as shown in the Milk and Alternatives group).*	6.2.1.7 →	7.2.1.7 Create a personal menu or meal plan from a diversity of foods within each of the food groups, as described in Canada's Food Guide.	8.2.1.7 →
5.2.1.8 Identify that some foods within a food group are healthier choices than other foods (e.g., nutrient-dense foods).	6.2.1.8 →	7.2.1.8 Analyze personal food choices based on Canada's Food Guide (e.g., classify personal food choices as "Seldom, Sometimes, Often" or "Red, Yellow, Green Light").	8.2.1.8 →
5.2.1.9 Identify appropriate serving sizes, as defined in Canada's Food Guide.*	6.2.1.9 →	7.2.1.9 Analyze personal food intake as it relates to serving sizes, as defined in Canada's Food Guide.	8.2.1.9 →

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8
Goal 2: Demonstrate understanding of health and wellness. <i>(continued)</i>			
GLO 2.1: Develop understanding of the relationship between food and a healthy body. <i>(continued)</i>			
5.2.1.10 Identify ingredients in a recipe and/or food product that belong to Canada's Food Guide.	6.2.1.10 Match ingredients in a recipe to their corresponding food group, and identify which ingredients would be "Foods to Limit."	7.2.1.10 Use Canada's Food Guide for selecting wholesome ingredients for recipes or for evaluating the healthiness of a recipe (e.g., rate/rank a variety of similar ingredients based on whether or not they belong to a food group).	8.2.1.10 Use Canada's Food Guide to find support for the health benefits of preparing recipes from scratch (e.g., use Canada's Food Guide to compare fast or convenient foods to home cooked foods).
		7.2.1.11 Investigate how Canada's Food Guide can be used to meet special dietary needs and lifestyles (e.g., discuss ways in which the Canada's Food Guide choices could support an athlete's energy needs; discuss sports nutrition and vegetarian diets).	8.2.1.11 Create personal menu or meal plans using Canada's Food Guide as a tool for meeting special dietary needs and lifestyles (e.g., design a menu or meal plan for athletes or vegetarians).
			8.2.1.12 Develop a personal action plan for making healthy food choices, and use problem-solving strategies to support or improve personal nutrition for a healthy body.

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8
Goal 2: Demonstrate understanding of health and wellness. <i>(continued)</i>			
GLO 2.2: Develop label literacy for achieving and maintaining health and wellness.			
5.2.2.1 Identify food labels as a source of information.	6.2.2.1 List key elements on food labels (e.g., nutrition facts, list of ingredients, nutrition claims).	7.2.2.1 Explain how each element on a food label can be used to seek specific information about a food product or to compare food products (e.g., list of ingredients for seeking allergens, nutrition facts for comparing recommended daily intake percentages, nutrition claims for at-a-glance information).	8.2.2.1 Use food label elements to acquire information about a food product, to determine and compare a food's nutritional value, or to meet personal dietary needs (e.g., compare products based on fat, salt, sugar, fibre content; note any preservatives, additives; make appropriate substitutions in recipes).
5.2.2.2 Identify and define food allergies, intolerances, and sensitivities.	6.2.2.2 Compare/contrast among food allergies, intolerances, and sensitivities, explain the various effects or reactions to each of the above on the body, and dispel current myths about food allergies, intolerances, and sensitivities.	7.2.2.2 Recall current myths about food allergies, intolerances, and sensitivities, and recognize appropriate food choices for a variety of food allergies, intolerances, and sensitivities to support a healthy adolescent body.	8.2.2.2 Construct appropriate menu and meal plans for a variety of food allergies, intolerances, and/or sensitivities to support a healthy adolescent body.
	6.2.2.3 Analyze food labels for selecting food products that promote health and wellness.	7.2.2.3 Analyze food labels for selecting ingredients and/or food products that best meet the nutritional needs of the adolescent.	8.2.2.3 Analyze food labels for selecting ingredients and/or food products that best meet personal nutritional needs.

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8
Goal 2: Demonstrate understanding of health and wellness. <i>(continued)</i>			
GLO 2.2: Develop label literacy for achieving and maintaining health and wellness. <i>(continued)</i>			
		7.2.2.4 Apply label literacy skills to support or deny a food product's nutrition or health claim(s).	8.2.2.4 →
GLO 2.3: Develop understanding of influences on food choices.			
5.2.3.1 Describe the difference between needs and wants as they relate to food choices.	6.2.3.1 Identify current food choices as needs or wants.	7.2.3.1 Categorize current adolescent food choices as needs or wants.	8.2.3.1 Analyze what the influences are behind determining personal food choices as needs or wants.
5.2.3.2 Identify factors that influence people's food choices (e.g., nutritional, cultural, emotional, environmental, religious, social, ethical, economical).*	6.2.3.2 →	7.2.3.2 Describe factors that influence current adolescent food choices.	8.2.3.2 Assess factors that influence personal food choices.

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Goal 2: Demonstrate understanding of health and wellness. *(continued)*

GLO 2.3: Develop understanding of influences on food choices. *(continued)*

5.2.3.3 Describe the influence of colonization on traditional and current food choices (e.g., many foods we eat today are not native to North America and are the result of British and French colonization).	6.2.3.3 →	7.2.3.3 →	8.2.3.3 →
5.2.3.4 Describe how various media (e.g., flyers, magazines, billboards, radio, television, the Internet, social media) are used to promote the consumption of a variety of foods (e.g., fresh produce, health foods, fast foods, energy drinks, restaurant meals).*	6.2.3.4 Identify how various media are used to promote the consumption of a variety of foods.	7.2.3.4 Describe how various media influence current adolescent food choices (e.g., marketing strategies).	8.2.3.4 Assess how various media influence personal food choices.
5.2.3.5 Describe how people are accessing information about food and food products (e.g., people are accessing nutrition information from media, social media, etc.).	6.2.3.5 →	7.2.3.5 →	8.2.3.5 →

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8
Goal 2: Demonstrate understanding of health and wellness. <i>(continued)</i>			
GLO 2.3: Develop understanding of influences on food choices. <i>(continued)</i>			
		7.2.3.6 Explain the ability of food to satisfy physical and socio-emotional needs (e.g., peers, family).	8.2.3.6 Evaluate the ability of food in satisfying your physical and socio-emotional needs.
		7.2.3.7 Identify how various resources influence food choices (e.g., knowledge, time, skill, equipment, and finances) and the effect they have on the environment.	8.2.3.7 Identify how resources influence personal food choices and the effect they have on the environment.
		7.2.3.8 Compare and contrast health claims of food products as presented in media, and assess if claims are fact or fiction (e.g., dispel myths; evaluate the use of food(s) as a tool to “fix” body/health; examine super or miracle foods and vilified foods).	8.2.3.8 Analyze the health claims of food products and the effect they have on personal food choices.
		7.2.3.9 Describe current nutrition or food choice trends, and identify what need(s) these trends are fulfilling.	8.2.3.9 Compare/contrast current nutrition or food choice trends to Canada’s Food Guide to determine the validity of trends.

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8
Goal 2: Demonstrate understanding of health and wellness. <i>(continued)</i>			
GLO 2.3: Develop understanding of influences on food choices. <i>(continued)</i>			
		7.2.3.10 Describe ways in which media manipulate and distort images/messages as they relate to food and nutrition (e.g., digital manipulation; nutrition claims).	8.2.3.10 →
		7.2.3.11 List reliable, valid sources or references for nutrition information (e.g., Canada's Food Guide, dieticians of Canada, universities, etc.).	8.2.3.11 Compare and contrast a variety of nutrition resources for validity and reliability (e.g., magazines, Internet sites, social media, health professionals).
			8.2.3.12 Outline strategies for achieving and maintaining a positive body image and attitudes about food (e.g., critically examining media messages, becoming educated about trends, using positive self-talk, setting priorities, participating in varied activities, talking with others).*

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8
Goal 2: Demonstrate understanding of health and wellness. <i>(continued)</i>			
GLO 2.4: Recognize the relationship between human needs and lifestyle practices.			
5.2.4.1 Identify general factors that affect energy needs (e.g., age, body frame/height, gender, activity level, dietary and health needs, growth/development, maintenance, repair).	6.2.4.1 —→	7.2.4.1 Describe additional factors that affect energy needs (e.g., stage in development like pregnancy, genetics; medical conditions and medications; lifestyle choices like activity level; food choices, etc.).	8.2.4.1 Explain factors that affect energy needs to the growing adolescent.
5.2.4.2 Identify the effect of food choices on energy balance (e.g., input vs. output).	6.2.4.2 Identify and explain the effect of food choices on energy balance.	7.2.4.2 Describe the effect of current adolescent food choices on energy balance (e.g., “supersized” portion distortion, what is meant by “moderation”).	8.2.4.2 Assess how food choices can be used to achieve and maintain optimal energy balance (e.g., importance of breakfast, healthy snack choices).
5.2.4.3 Identify factors necessary to maintain a healthy body (e.g., daily physical activity, a balanced diet, fluid replacement, adequate sleep, appropriate hygiene practices, and regular medical checkups).	6.2.4.3 Identify and explain factors necessary to maintain a healthy body.	7.2.4.3 Assess factors to maintaining a healthy adolescent body.	8.2.4.3 Assess personal contributions to achieve optimal physical health.

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Goal 2: Demonstrate understanding of health and wellness. *(continued)*

GLO 2.4: Recognize the relationship between human needs and lifestyle practices. *(continued)*

5.2.4.4 Identify factors that affect people's food needs and choices (e.g., food preferences, busy schedules, resources).*	6.2.4.4 →	7.2.4.4 Describe factors that affect adolescent food needs and choices.	8.2.4.4 Assess factors that affect one's own food needs and choices.
5.2.4.5 Explain how menu and meal planning is influenced by cultural diversity (e.g., Aboriginal, Asian, European, North American, etc.).	6.2.4.5 Describe items on a menu or in a meal that are influenced by different cultures.	7.2.4.5 Describe the influence of cultural items on a menu or in a meal plan to current adolescent food choices.	8.2.4.5 Apply cultural diversity to meal planning and for making personal food choices.
5.2.4.6 Identify menu items and meal plans that include a variety of foods that contribute to a healthy body.	6.2.4.6 →	7.2.4.6 Develop a personal action plan to incorporate a variety of foods that contribute to a healthy adolescent body when menu and meal planning (e.g., include an apple with lunch, add healthy foods into meals like adding a chopped apple into coleslaw).	8.2.4.6 →

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Goal 2: Demonstrate understanding of health and wellness. *(continued)*

GLO 2.4: Recognize the relationship between human needs and lifestyle practices. *(continued)*

7.2.4.7 Identify the influence of heredity on a healthy body (e.g., growth, body type, characteristics).

8.2.4.7 Describe to what degree heredity has an influence on a healthy body.

7.2.4.8 Identify how overall health may be affected by many lifestyle choices and global/environmental factors (e.g., smoking, unhealthy eating, physical inactivity, growing your own garden, hunting, fishing, berry picking, traditional/holistic model of health, peers, cultural, media, social influences).

8.2.4.8 Describe how personal health may be affected by current and future lifestyle choices and global/environmental factors.

8.2.4.9 Compare and contrast some theories about the relationship between body type/shape and health (e.g., different shapes can be healthy).*

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Goal 3: Demonstrate understanding of human relations.

GLO 3.1: Explore human relations as they apply to food and nutrition.

5.3.1.1 Identify the importance of food in a social setting.	6.3.1.1 →	7.3.1.1 Explain the importance of food to adolescent social settings.	8.3.1.1 Explain the importance of food in personal and global social settings.
5.3.1.2 Identify and demonstrate meal etiquette (e.g., setting table, sitting, eating as a group, respectful conversations, eating with new friends/coworkers/bosses, etc.).	6.3.1.2 →	7.3.1.2 →	8.3.1.2 →
5.3.1.3 Identify local, regional, and global meal etiquette (e.g., setting table, sitting, eating as a group, respectful conversations, table manners from around the world).	6.3.1.3 Identify etiquette rules to a variety of local, regional, and global situations.	7.3.1.3 Compare and contrast local, regional, and global meal etiquette practices.	8.3.1.3 →
5.3.1.4 Identify current eating patterns and eating trends (e.g., eating on the run, dashboard dining, mindful eating).	6.3.1.4 →	7.3.1.4 Evaluate personal eating patterns for healthy growth and development.	8.3.1.4 →

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8
Goal 3: Demonstrate understanding of human relations. <i>(continued)</i>			
GLO 3.1: Explore human relations as they apply to food and nutrition. <i>(continued)</i>			
5.3.1.5 Describe the role that food plays in getting to know and understand others of similar and different cultures.	6.3.1.5 Identify ways in which food helps us understand others of similar and different cultures.	7.3.1.5 Explain how adolescents might use food to connect with other adolescents of similar and different cultures.	8.3.1.5 Explain how food connects people of similar and different cultures.
5.3.1.6 Identify and/or explain the cultural origins of ingredients, recipes, and/or food products (e.g., as represented in your local, regional, or global community).	6.3.1.6 —→	7.3.1.6 Describe the cultural origins of ingredients, recipes, and/or food products to adolescent food choices.	8.3.1.6 Use a variety of culturally diversified ingredients in a recipe or dishes in a meal when menu or meal planning.
		7.3.1.7 Describe how childhood eating habits can influence lifelong eating patterns (e.g., how has the past influenced what you eat today and how does it predict future eating habits; maintaining or dropping family food traditions).*	8.3.1.7 Assess current eating habits and analyze the influence they will have on lifelong eating patterns.

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Goal 4: Demonstrate technical and applied skills.

GLO 4.1: Demonstrate literacy skills as they apply to food and nutrition.

5.4.1.1 Identify sources of recipes (e.g., cookbooks, Internet, newspapers, food packages, friends/family, social media).	6.4.1.1 →	7.4.1.1 →	8.4.1.1 Evaluate sources of recipes for readability.
5.4.1.2 Identify different parts of a recipe (e.g., list of ingredients, directions; key pieces of information like yield, prep time).	6.4.1.2 →	7.4.1.2 Describe where to find critical details within a recipe.	8.4.1.2 Demonstrate “at-a-glance” discovery of critical details within a recipe.
5.4.1.3 Identify required ingredients in a recipe for use in food preparation.	6.4.1.3 →	7.4.1.3 Select and collect ingredients in a recipe to prepare a food item(s).	8.4.1.3 →
5.4.1.4 Identify basic culinary vocabulary in a recipe (e.g., terms, techniques, temperature choices).	6.4.1.4 →	7.4.1.4 Define basic culinary vocabulary in a recipe and apply the vocabulary.	8.4.1.4 Demonstrate appropriate culinary vocabulary for clear communication and understanding.
5.4.1.5 Demonstrate the procedure to read, interpret, and follow directions in a recipe (text and/or image) to produce a food item(s).	6.4.1.5 →	7.4.1.5 →	8.4.1.5 →

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Grade 5	Grade 6	Grade 7	Grade 8

Goal 4: Demonstrate technical and applied skills. (*continued*)

****GLO 4.2:** Demonstrate numeracy skills as they apply to food and nutrition.

5.4.2.1 Identify metric and imperial units of measurement on measuring equipment (e.g., millilitres, cups, teaspoons, tablespoons, ounces, grams, fractions, and decimals).	6.4.2.1 —→	7.4.2.1 Apply mathematical skills correctly with metric and imperial measurement units (e.g., add and subtract fractions and decimals).	8.4.2.1 Apply mathematical skills correctly with metric and imperial measurement units (e.g. multiplication and division of fractions and decimals).
5.4.2.2 Identify measuring equipment for metric and imperial recipes (e.g., dry and liquid measuring cups, measuring spoons in metric and imperial).	6.4.2.2 —→	7.4.2.2 Select the correct measuring equipment for metric and imperial recipes.	8.4.2.2 —→
5.4.2.3 Identify correct metric and imperial measuring techniques for accuracy and reliability (e.g., correct way to use dry/liquid measuring cups, measuring spoons).	6.4.2.3 —→	7.4.2.3 Demonstrate correct measuring techniques for metric and imperial recipes.	8.4.2.3 Analyze and assess personal measuring techniques to improve personal measuring techniques.

** The imperial measurement system is new to the student and is covered in the Grade 10 Mathematics curriculum.
Adding and subtracting fractions is new to the student and is covered in the Grade 7 Mathematics curriculum.

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Grade 5	Grade 6	Grade 7	Grade 8
Goal 4: Demonstrate technical and applied skills. <i>(continued)</i>			
GLO 4.2: Demonstrate numeracy skills as they apply to food and nutrition. (continued)			
5.4.2.4 Identify metric and imperial units of heat in a recipe (e.g., Fahrenheit, Celsius).	6.4.2.4 →	7.4.2.4 Explain that units of heat can be used interchangeably in a recipe (e.g., 350°F = 180°C).	8.4.2.4 Demonstrate the ability to use the correct conversion of units of heat (e.g., If recipe says to bake at 180°C but oven is imperial, turn dial to 350°F).
5.4.2.5 Identify imperial and metric measurement and heat unit abbreviations (e.g., C, tsp., mL, °C, °F).	6.4.2.5 →	7.4.2.5 Demonstrate the use of imperial and metric measurement and heat unit abbreviations.	8.4.2.5 →

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8
Goal 4: Demonstrate technical and applied skills. <i>(continued)</i>			
GLO 4.3: Demonstrate understanding of food preparation fundamentals.			
5.4.3.1 Identify basic functions of key ingredients.	6.4.3.1 →	7.4.3.1 Describe functions of various ingredients (e.g., flours, liquids, fats, eggs, leavening agents, sweeteners, flavouring agents, etc.).	8.4.3.1 →
5.4.3.2 Identify the current use of cutting techniques for food preparation and/or as demonstrated (e.g., slicing, Julienne cutting, chopping, mincing, etc.).	6.4.3.2 →	7.4.3.2 →	8.4.3.2 Select and demonstrate the correct use of cutting techniques for food preparation (e.g., slicing vs. Julienne cutting; chopping vs. mincing, etc.).
5.4.3.3 Identify the correct use of mixing techniques for food preparation and/or as demonstrated (e.g., stirring, beating, cutting in, folding in, etc.).	6.4.3.3 →	7.4.3.3 Identify and demonstrate the correct mixing techniques for food preparation and/or as demonstrated.	8.4.3.3 Select and demonstrate the correct use of mixing techniques for food preparation (e.g., stirring vs. beating; cutting in vs. folding in, etc.).

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Grade 5	Grade 6	Grade 7	Grade 8
Goal 4: Demonstrate technical and applied skills. <i>(continued)</i>			
GLO 4.3: Demonstrate understanding of food preparation fundamentals. <i>(continued)</i>			
5.4.3.4 Identify the correct use of heat settings on a variety of cooking appliances (e.g., range, oven, grill, microwave, Panini press, waffle maker, etc.).	6.4.3.4 →	7.4.3.4 Identify and demonstrate the correct use of the appropriate heat settings on a variety of cooking appliances (e.g., maximum heat brings water to a boil, minimum heat keeps foods warm).	8.4.3.4 →
5.4.3.5 Identify the correct use of a variety of cooking methods (e.g., boil, simmer, braise, stew, fry, sauté, etc.).	6.4.3.5 →	7.4.3.5 Identify and demonstrate the correct use of cooking methods in food preparation.	8.4.3.5 →

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Grade 5	Grade 6	Grade 7	Grade 8

Goal 4: Demonstrate technical and applied skills. *(continued)*

GLO 4.4: Demonstrate food preparation skills.

5.4.4.1 Use a recipe(s) to prepare and serve a food item(s) that reflects current nutritional guidelines and that also fits into a balanced eating plan for optimal health (e.g., snacks, entrees, soups, desserts, breakfasts, etc.).	6.4.4.1 →	7.4.4.1 →	8.4.4.1 →
5.4.4.2 Use a recipe(s) to prepare and serve food item(s) from other countries/ cultures using culturally specific ingredients and techniques.	6.4.4.2 →	7.4.4.2 →	8.4.4.2 →
		7.4.4.3 Critique the food item(s) prepared to evaluate the end result(s).	8.4.4.3 →

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8

Goal 5: Demonstrate understanding of design, innovation, and information technology.

GLO 5.1: Demonstrate familiarity with technological developments and trends in the food and nutrition industry.

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- 8.5.1.1 Describe the history and evolution of food and food products (e.g., recognize advantages and disadvantages).
 - 8.5.1.2 Investigate trends that are driving the food and beverage industry.
 - 8.5.1.3 Recognize that technology is a way of solving problems in response to human needs. (*Science framework 5-0-8c*)
 - 8.5.1.4 Provide examples of food-related technologies from the past, and describe how they have evolved over time. (*Science framework 5-0-8d*)
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Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8
Goal 5: Demonstrate understanding of design, innovation, and information technology. <i>(continued)</i>			
GLO 5.1: Demonstrate familiarity with technological developments and trends in the food and nutrition industry. <i>(continued)</i>			
			8.5.1.5 Describe positive and negative effects of scientific and technological food-related endeavours. <i>Include: effects on themselves, society, the environment, and the economy (Science framework 6-0-8g)</i>
			8.5.1.6 Discuss societal, environmental, and economic impacts of scientific and technological food-related endeavours (e.g., local and global impacts). <i>(Science framework 7-0-8g)</i>
GLO 5.2: Demonstrate familiarity with design in the food and nutrition industry.			
			8.5.2.1 Investigate opportunities to design and create food products with state-of-the-art technologies (e.g., nutrition and food products by design, creative arts, airbrushing, and food printing).

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8

Goal 5: Demonstrate understanding of design, innovation, and information technology. *(continued)*

GLO 5.3: Demonstrate familiarity with innovation and information technology in the food and nutrition industry.

8.5.3.1 Investigate innovation related to food and food products (e.g., ingredients (pharming), genetically modified organisms (GMO), forms of food preservation—freeze-dried, dehydration).

8.5.3.2 Research current technologies related to culinary tools and equipment (e.g., appliances such as dehydrators, silicone bakeware equipment, 3-D food printer).

8.5.3.3 Identify current information technology in the home and industry (e.g., apps, smart devices/tables/appliances).

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Grade 5	Grade 6	Grade 7	Grade 8

Goal 6: Demonstrate understanding of sustainability.

GLO 6.1: Explore food security and availability issues as they relate to food.

5.6.1.1 Describe the different types of foods produced in Canada (e.g., fish, meat and poultry, dairy products, grains, vegetables, and fruits).*	6.6.1.1 Identify the different types of foods produced in Canada.	7.6.1.1 Investigate the different types of foods produced in Canada to the regions from which they originated.	8.6.1.1 Integrate a variety of foods produced in Canada into menus and meal planning, and relate regional foods to local food choices.
5.6.1.2 Identify and compare the benefits of market forms of food (e.g., frozen, fresh, canned, dried).	6.6.1.2 →	7.6.1.2 →	8.6.1.2 →
5.6.1.3 Identify imported foods from other countries (e.g., tropical fruits, nuts, ocean fish, coffee, tea, chocolate).*	6.6.1.3 →	7.6.1.3 Explain reasons why certain foods are imported from other countries.	8.6.1.3 →

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Grade 5	Grade 6	Grade 7	Grade 8
Goal 6: Demonstrate understanding of sustainability. <i>(continued)</i>			
GLO 6.1: Explore food security and availability issues as they relate to food. <i>(continued)</i>			
5.6.1.4 Describe how surplus local foods can be shared with others in need or in the community (e.g., ask neighbours who have surplus crabapples if you can pick some apples for them or for a food bank; cook these apples for others who would need them; cook these apples and share with others in your own community).	6.6.1.4 Identify how surplus local foods can be shared with others in need or in the community.	7.6.1.4 Investigate how adolescents can share surplus local foods with others in need or in the community.	8.6.1.4 Create an action plan that would demonstrate the sharing of surplus local foods with others in need or in the community.
			8.6.1.5 Describe factors that influence where people choose to get their food or why they choose specific foods from other countries (e.g., local grocery store, bulk-food store, big-box store, farmers' market, roadside stand, pick-your-own farm, fair trade).*

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Grade 5	Grade 6	Grade 7	Grade 8

Goal 6: Demonstrate understanding of sustainability. *(continued)*

GLO 6.1: Explore food security and availability issues as they relate to food. *(continued)*

8.6.1.6 Identify the components of food security (e.g., availability, accessibility, adequacy, acceptability, sustainability).*

8.6.1.7 Explain why some people in Canada cannot achieve food security (e.g., lack of access to safe drinking water in smaller communities or communities with deteriorating infrastructure; low income; lack of knowledge about nutrition or food preparation; lack of resources or lack of access to resources; poor growing conditions or low crop yields as a result of soil depletion or natural disasters).*

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Grade 5	Grade 6	Grade 7	Grade 8
Goal 6: Demonstrate understanding of sustainability. <i>(continued)</i>			
GLO 6.2: Explore social justice and human rights issues as they relate to food.			
5.6.2.1 Identify local programs to increase food security (e.g., education programs, food banks, community kitchens, food drives, community gardens).*	6.6.2.1 →	7.6.2.1 →	8.6.2.1 Create an action plan that would demonstrate the sharing of surplus local foods with others in need or in the community.
5.6.2.2 Describe how local programs originated and how they strive to increase food security.	6.6.2.2 →	7.6.2.2 →	8.6.2.2 Explain how food has been used to control people (e.g., death by starvation like Holodomor, child labour, gender inequity).
		7.6.2.3 Describe behaviours that show respect for the rights and feelings of others (e.g., volunteering or supporting free trade).	8.6.2.3 Investigate how to access and/or contribute towards local programs for food security.

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8
Goal 6: Demonstrate understanding of sustainability. <i>(continued)</i>			
GLO 6.3: Explore environmental matters related to food.			
5.6.3.1 Identify programs and practices that reduce the impact of food production and consumption on the environment (e.g., recycling programs, organic farming, food co-ops, community gardens, buying foods in bulk).*	6.6.3.1 →	7.6.3.1 Describe programs and practices that reduce the impact of food production and consumption on the environment, and demonstrate the practice of recycling food packaging in a foods lab.	8.6.3.1 Demonstrate the practice of recycling food packaging in a foods lab, and assess programs and practices that reduce the impact of food production and consumption on the environment.
5.6.3.2 Identify environmentally responsible food-related strategies (e.g., using cooking techniques that require less energy, cultivating home vegetable gardens, packing lunches in reusable containers, using reusable shopping bags, buying in bulk, recycling, vermicomposting).*	6.6.3.2 →	7.6.3.2 Describe environmentally responsible food-related strategies.	8.6.3.2 Demonstrate environmentally responsible food-related strategies.
		7.6.3.3 Demonstrate ways in which home cooking can help the environment (e.g., repurpose foods by being creative with leftovers instead of throwing food away; composting).	8.6.3.3 →

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Grade 5	Grade 6	Grade 7	Grade 8
Goal 7: Demonstrate understanding of career opportunities and the skills required.			
GLO 7.1: Demonstrate social skills.			
5.7.1.1 Actively participate in a positive manner.	6.7.1.1 →	7.7.1.1 →	8.7.1.1 →
5.7.1.2 Present ideas effectively to others.	6.7.1.2 →	7.7.1.2 →	8.7.1.2 →
5.7.1.3 Listen in order to understand and learn.	6.7.1.3 →	7.7.1.3 →	8.7.1.3 →
5.7.1.4 Listen to others to understand their perspectives.	6.7.1.4 →	7.7.1.4 →	8.7.1.4 →
5.7.1.5 Demonstrate a willingness to continuously learn.	6.7.1.5 →	7.7.1.5 →	8.7.1.5 →

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8
Goal 7: Demonstrate understanding of career opportunities and the skills required. <i>(continued)</i>			
GLO 7.2: Demonstrate decision-making skills.			
5.7.2.1 Explain the advantages and disadvantages of some common approaches to decision making.	6.7.2.1 →	7.7.2.1 →	8.7.2.1 →
5.7.2.2 Identify steps in the decision-making process.	6.7.2.2 →	7.7.2.2 →	8.7.2.2 →
5.7.2.3 Describe factors that affect decision making.	6.7.2.3 →	7.7.2.3 →	8.7.2.3 →
5.7.2.4 Distinguish fact from opinion and interpretation in making decisions.	6.7.2.4 →	7.7.2.4 →	8.7.2.4 →
5.7.2.5 Predict and analyze the consequences of decisions.	6.7.2.5 →	7.7.2.5 →	8.7.2.5 →
5.7.2.6 Apply appropriate decision-making processes that reflect fairness and equity in their interactions with others.	6.7.2.6 →	7.7.2.6 →	8.7.2.6 →
5.7.2.7 Use a variety of strategies to resolve conflicts peacefully and fairly with respect for others' ways of life and beliefs.	6.7.2.7 →	7.7.2.7 →	8.7.2.7 →

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Grade 5	Grade 6	Grade 7	Grade 8

Goal 7: Demonstrate understanding of career opportunities and the skills required. (*continued*)

GLO 7.3: Demonstrate teamwork.

5.7.3.1 List and define team objectives.	6.7.3.1 →	7.7.3.1 →	8.7.3.1 →
5.7.3.2 Demonstrate an understanding of the role of members of a team.	6.7.3.2 →	7.7.3.2 →	8.7.3.2 →
5.7.3.3 Collaborate with others to establish and carry out group goals and responsibilities.	6.7.3.3 →	7.7.3.3 →	8.7.3.3 →
5.7.3.4 Demonstrate an understanding of one's contribution to her or his group.	6.7.3.4 →	7.7.3.4 →	8.7.3.4 →
5.7.3.5 Acknowledge the opinions and contributions of all team members.	6.7.3.5 →	7.7.3.5 →	8.7.3.5 →
5.7.3.6 Negotiate constructively with others to build consensus and solve problems.	6.7.3.6 →	7.7.3.6 →	8.7.3.6 →

Middle Years Exploratory/Introductory		Middle Years Intermediate	
Grade 5	Grade 6	Grade 7	Grade 8
Goal 7: Demonstrate understanding of career opportunities and the skills required. <i>(continued)</i>			
GLO 7.4: Demonstrate time management skills.			
5.7.4.1 Complete all assigned tasks within given time frame.	6.7.4.1 →	7.7.4.1 →	8.7.4.1 →
5.7.4.2 Complete all projects according to specified criteria to produce a quality product.	6.7.4.2 →	7.7.4.2 →	8.7.4.2 →
GLO 7.5: Plan a career related to food and nutrition.			
5.7.5.1 Identify critical skills needed for employability in today's workplace.	6.7.5.1 →	7.7.5.1 →	8.7.5.1 →
5.7.5.2 Demonstrate an awareness of food-related occupations and careers (e.g., marketing, designer, retail, production, technology, industry).	6.7.5.2 →	7.7.5.2 →	8.7.5.2 →
5.7.5.3 Demonstrate an awareness of nutrition-related occupations and careers (e.g., science, technology, industry).	6.7.5.3 →	7.7.5.3 →	8.7.5.3 →
5.7.5.4 Demonstrate an awareness of career opportunities as a home economist/human ecologist.	6.7.5.4 →	7.7.5.4 →	8.7.5.4 →



MIDDLE YEARS HUMAN ECOLOGY

Appendices

APPENDIX 1: SLOs AND GLOs FROM OTHER SUBJECT AREAS

The following SLOs and GLOs from other subject areas are just a few examples of how the human ecology curriculum can be used to support, enhance, and connect with other curricula:

Science

- 5-1-01: Use appropriate vocabulary related to their investigations of human health. Include: nutrients; carbohydrates; proteins; fats; vitamins; minerals; Canada's Food Guide to Healthy Eating; food group; serving size; terms related to the digestive, skeletal, muscular, nervous, integumentary, respiratory, and circulatory systems. GLO: B3, C6, D1
- 5-1-02: Interpret nutritional information found on food labels.
Examples: ingredient proportions, identification of potential allergens, information related to energy content and nutrients...
GLO: B3, C4, C5, C8
- 5-1-03: Describe the types of nutrients in foods and their function in maintaining a healthy body. Include: carbohydrates, proteins, fats, vitamins, minerals.
GLO: B3, D1

- 7-0-2a: Access information using a variety of sources.
Examples: libraries, magazines, community resource people, outdoor experiences, videos, CD-ROMs, Internet...
GLO: C6 (ELA Grade 7, 3.2.2; TFS 2.2.1)
- 7-0-2b: Evaluate the usefulness, currency, and reliability of information, using predetermined criteria.
GLO: C6, C8 (ELA Grade 7, 3.2.3; TFS 2.2.2)
- 7-0-4c: Work cooperatively with team members to carry out a plan, and troubleshoot problems as they arise.
GLO: C7 (ELA Grade 7, 5.2.1)
- 7-0-4d: Assume various roles to achieve group goals.
GLO: C7 (ELA Grade 7, 5.2.2)
- 7-0-4e: Demonstrate work habits that ensure personal safety, the safety of others, and consideration for the environment. Include: keeping an uncluttered workspace; putting equipment away after use; handling glassware with care; wearing goggles when required; disposing of materials safely and responsibly.
- 7-0-5c: Select and use tools to observe, measure, and construct. Include: microscopes, a variety of thermometers, graduated cylinders, glassware, balance. GLO: C2, C3, C5

7-0-5d: Make conversions among commonly used SI units.
GLO: C2, C3 (Math: SS-IV.3.6, SS-I.3.6, SS-III.3.6)

7-0-5e: Estimate and measure accurately using SI and other standard units. Include: determining volume by displacement of water. GLO: C2, C5 (Math: SS-IV.1.6, SS-III.1.5, SS-III.1.6, SS-I.1.5)

7-0-8b: Describe examples of how scientific knowledge has evolved in light of new evidence and the role of technology in this evolution. GLO: A2, A5, B

7-0-8g: Discuss societal, environmental, and economic impacts of scientific and technological endeavours. Include: local and global impacts.
GLO: A1, B1, B3, B5

7-2-01: Use appropriate vocabulary related to their investigations of the particle theory of matter. Include: boiling and melting points, pure substance, scientific theory, particle theory of matter, temperature, heat, conduction, convection, radiation, mixture, solution, mechanical mixture, homogeneous, heterogeneous, solutes, solvents, solubility, concentration, dilute, concentrated, saturated, unsaturated, terms related to forms of energy. GLO: C6, D3, E4

7-2-07: Differentiate between the concept of temperature and the concept of heat. GLO: D3, D4, E4

Aboriginal Education

1.4.1: B-8: Use familiar text forms and media (e.g., recipes, comic strips, letters, radio or television reports) in own productions.

2.2.1: A-8: Divide an overall learning task into sub-tasks.

2.2.1: E-8: Identify and organize resources required for a specific learning task.

3.1.1: E-8: Suggest ways to help make decisions regarding the family budget.

3.1.1: F-8: Discuss family activities, gatherings, and special celebrations and traditions.

3.1.2: C-8: Identify changes that have occurred in the use of household products and technology over a specific time period.

3.1.2: G-2: Describe the usefulness of common household objects for specific tasks.

3.1.2: D-8: Analyze the benefits and disadvantages of the technology currently being used in homes

3.1.2: E-8 Discuss the importance of reducing, recycling, and reusing household items.

3.1.2: F-8: Discuss the use of energy-efficient practices (e.g., recycling, repairing rather than buying new products) in the home.

3.2.3: H-8: Describe ways in which technology has an impact on personal health (e.g., physical activity may increase with access to fitness equipment and decrease with prolonged use of technological devices).

3.2.3: I-8: Describe lifestyle practices (e.g., habits related to nutrition, stress management) and their effects on body systems (e.g., contribute to or prevent heart disease, depression).

Mathematics

5.N.2: Apply estimation strategies, including

- front-end rounding
- compensation
- compatible numbers

in problem-solving contexts. [C, CN, ME, PS, R, V]

5.N.4: Apply mental mathematics strategies for multiplication, such as

- annexing then adding zeros
- halving and doubling
- using the distributive property [C, ME, R]

5.N.7: Demonstrate an understanding of fractions by using concrete and pictorial representations to

- create sets of equivalent fractions
- compare fractions with like and unlike denominators [C, CN, PS, R, V]

5.N.9: Relate decimals to fractions (tenths, hundredths, thousandths). [CN, R, V]

5.N.10: Compare and order decimals (tenths, hundredths, thousandths) by using

- benchmarks
- place value
- equivalent decimals [CN, R, V]

8.N.3: Demonstrate an understanding of percents greater than or equal to 0%. [CN, PS, R, V]

8.N.4: Demonstrate an understanding of ratio and rate. [C, CN, V]

8.N.5: Solve problems that involve rates, ratios, and proportional reasoning. [C, CN, PS, R]

8.N.6: Demonstrate an understanding of multiplying and dividing positive fractions and mixed numbers, concretely, pictorially, and symbolically. [C, CN, ME, PS]

8.SP.1: Critique ways in which data are presented. [C, R, T, V]

Physical Education/Health Education

K.5.6.C.2: Identify daily nutrition habits and fluid intake practices to support healthy participation in various types of physical activities.

K.5.8.A.2: Examine lifestyle practices (e.g., physical activity habits, nutritional habits, use of tobacco and alcohol, rest habits, personal hygiene, stress management...) and their effects on body systems (e.g., contribute to or prevent coronary heart disease, diabetes, hypertension, cancer, osteoporosis, obesity, depression...).

K.5.8.C.1b: Explain influences (i.e., healthy eating, regular activity, media, healthy body image) on growth and development during adolescence.

K.5.8.C.2: Apply “sport nutrition principles” to a variety of physical activities.

S.5.6.A.3b: Use problem-solving strategies to improve personal nutrition and daily physical activity habits for a healthy body (e.g., bone development).

S.5.S2.A.3b: Demonstrate the ability to use information on labels to make daily healthy food choices.

Sustainability Life Practices (Acquiring—Middle Years)

Human Health & Well-Being

1M Demonstrate healthy behaviours

- make informed and healthy food choices by purchasing and eating healthy food and making appropriately sized lunches

2M Demonstrate safe behaviours

- carry out activities in a safe and responsible manner
- encourage others to act in a safe manner

3M Demonstrate care and concern for others—locally, nationally, and globally

- contribute to, or volunteer for, a worthwhile cause (e.g., a local shelter or soup kitchen)
- as a class or school, undertake a project to aid others locally, nationally, or globally (e.g., sponsor a foster child in a developing country)

The Environment

4M Demonstrate behaviours that contribute to the well-being of the environment, at home, school, and in the community

- establish a recycling program in their school

The Economy

5M Make wise choices about consumption

- precycle (i.e., refuse, reduce, replace, reuse in order to reduce consumption and recycling)
- purchase in a bulk or concentrated forms
- use clotheslines instead of dryers
- repair products to extend useful life instead of replacing them
- repair worn or torn clothing items instead of purchasing new items
- avoid purchasing products made with excessive packaging
- avoid buying products made from endangered plants and animals

6M Understand basic economic principles

- help set priorities and contribute to decision making regarding the family budget
- create and follow a personal budget
- begin to investigate career options
- shop and make purchases according to sustainability principles

Taking Action

7M Take action on sustainability issues

- analyze local and national sustainability issues
- as a class, identify and discuss a significant sustainability problem/issue

Social Studies

Skills

Active Democratic Citizenship

Students will...

- S-100 Collaborate with others to establish and carry out group goals and responsibilities.
- S-101 Use a variety of strategies to resolve conflicts peacefully and fairly.
- S-102 Make decisions that reflect fairness and equality in their interactions with others.
- S-103 Make decisions that reflect care, concern, and responsibility for the environment.
- S-104 Negotiate constructively with others to build consensus and solve problems.

Managing Information and Ideas

Students will...

- S-200 Select information from oral, visual, material, print, or electronic sources.
- S-203 Select and use appropriate tools and technologies to accomplish tasks.

Managing Information and Ideas

Students will...

- S-200 Select information from oral, visual, material, print, or electronic sources.
- S-203 Select and use appropriate tools and technologies to accomplish tasks.

Critical and Creative Thinking

Students will...

- S-301 Evaluate the advantages and disadvantages of solutions to a problem.
- S-302 Draw conclusions based on research and evidence.
- S 304 Distinguish fact from opinion and interpretation.
- S-309 Interpret information and ideas in a variety of media.

Communication

- S-400 Listen to others to understand their perspectives.

Values

- 6-VI-009 Appreciate the arts as important expressions of culture and identity.

APPENDIX 2: SAFETY IN MIDDLE YEARS HUMAN ECOLOGY CLASSROOM GUIDELINES

Introduction

Hands-on activities are a fundamental part of human ecology learning. Teaching human ecology requires students' active involvement in developing safe and efficient behaviours for lifelong personal and job-related skills development. Students progress into skills-based courses, such as Middle Years Human Ecology. They are introduced to independent skills training where there is a natural increase in the complexity of their hands-on skills development. Over time, students learn techniques of job-related skills and, through repetition and practice, develop even more sophisticated skills such as critical thinking, inquiry, and problem solving. Hands-on lab activities can provide important connections students' understanding of the nature of human ecology as it relates to lifelong learning, creativity, and the interplay of education and job-training skills.

The nature of the adolescent makes safety a very important issue. When adolescents are focused on the situation at hand, they may not consider the consequences or effects of current actions on the future. Adolescents often have a certain egocentrism that leads them to the belief that they are unique, special, and invulnerable to harm. They may be unaware of the consequences of risk-taking behaviour. It is the teacher's responsibility to ensure that safety considerations are accounted for when planning activities.

The challenge for schools is to offer human ecology activities that are simultaneously educationally rewarding and relevant to job training, making it challenging to students yet ultimately safe. These desired goals may be achieved through team effort involving all of those who set and administer school policies, design and maintain the learning environment, plan and deliver human ecology lessons, and select and prepare the materials used.

The goal of this appendix is to bring together information that principals, planners, teachers, and support staff need to help them make sound decisions regarding safety. It identifies areas for decision making and action at a variety of levels, and it supports planning and action by providing information on safety legislation and standards, safety hazards, and examples of procedures for eliminating or minimizing hazards.

1. Importance of a Safety and Health Program

What is the Internal Responsibility System for Safety and Health?

The Workplace Safety and Health Act supports every worker's right to a safe and healthy workplace. The duty for creating and maintaining a safe and healthy workplace falls on every person in the workplace to the degree that he or she has the authority and ability to do so. Whether it is the superintendent or the newest teacher hired, everyone has a personal and shared responsibility for working together cooperatively to prevent workplace injuries and illness.

Because employers have the greatest degree of control over the workplace, they also have the greatest degree of legal responsibility for safety and health. This, however, does not relieve principals and teachers from their duty to participate and co-operate in controlling workplace hazards and to take the necessary precautions to protect themselves and others from hazards.

The act also recognizes that only workers who are adequately informed and empowered can effectively fulfill their responsibilities. It grants three important rights to workers:

- **The Right to Know** about workplace hazards including how to identify hazards and protect themselves from those hazards, and about the rights afforded to workers under the act.

- **The Right to Participate** in decisions related to workplace safety and health, free of reprisal for their participation. Participation, in part, is achieved through the committee or workers' representative.
- **The Right to Refuse** work that the worker believes to be dangerous to him or herself or the safety of others.

The act protects the rights by prohibiting employers from imposing discipline or other sanctions on workers for fulfilling their responsibilities or exercising their rights. This helps workers participate with employers and supervisors in preventing workplace injuries and illness.

Taken together, these components are often called the internal responsibility system (IRS) for workplace safety and health, but good safety and health cannot rely on the internal responsibility system alone. Ongoing monitoring and enforcement by the Workplace Safety and Health Division are also required.

The combination of internal monitoring by Workplace Safety and Health Committees and external monitoring and enforcement by the Workplace Safety and Health Division ensure better legislative compliance and a more effective internal responsibility system in the workplace.

Due Diligence: An Approach to Human Ecology Safety

What is Due Diligence?

Sections 5, 6, and 7 of the act set out due diligence responsibilities. The act is available online at <www.gov.mb.ca/labour/safety>.

Due diligence means everyone with responsibility for safety and health must “...take every precaution reasonable in the circumstances to avoid a work related injury or illness.” This concept of “reasonable care” holds individuals accountable for their acts (what they do) and omissions (what they fail to do). It goes beyond simple “regulatory compliance.”

Due diligence contains these concepts:

- **Reasonably practicable:** What is “reasonably practicable” is determined by asking what a reasonable person, in the same position and circumstance, would have done to prevent the incident. When making that determination, three main factors need to be taken into account:
 - foreseeability
 - preventability
 - control
- **Degree of risk:** The approach selected to carry out a task depends on the degree of risk. The higher the risk, the greater the safety measures that must be taken.

In the case of a workplace safety and health program, the criteria for due diligence requires employers to do the following:

- **Establish a program:** The program should systematically identify hazards and assess their risks. It must include plans within the program to manage those risks. The plans should reduce the likelihood of the identified hazards causing harm.
- **Ensure the program is adequate:** The program must meet the needs of the workplace and the workers. It is a good idea to compare your program with industry standards.
- **Monitor and evaluate the program’s effectiveness:** Competent staff must be able to regularly check the effectiveness of the program and judge how well it meets legislative requirements.

Understanding Negligence and Liability

Below is a segment from the *Administrative Handbook*, which includes a three-page section of reference on negligence and liability.

It is generally assumed, in law, that teachers and others placed in charge of students have a duty to be responsible for the safety and welfare of those students during school hours and also after school hours during any school-sponsored activities on or off school premises. Failure to act reasonably under the circumstances, if this failure causes injury or death to a student, can result in a possible action in negligence.

It is generally recognized that four conditions must exist for a negligence suit to be successful:

1. The person alleged to be negligent must have a legal duty to maintain a standard of conduct that will protect others against hazards.
2. This person must fail to conform to a reasonable standard of conduct in connection with this duty. (The accepted standard is that of a prudent parent of a large family. However at least one recent court decision made a clear departure from that standard, and adopted a higher "Professional" standard of care where a teacher needs specialized knowledge, training and/or experience in order to carry out his/her duties, such as gymnastics instruction in a high school setting).
3. The person or persons to whom this obligation is owed must suffer a genuine loss or injury (which could be property loss or damage, or physical or psychological injury, or death).
4. There must be a definite casual connection between the first person's failure to maintain a proper standard of conduct and the loss or injury suffered by the second person.

Where teachers and other school officials are concerned, there is little difficulty in proving that a duty of care is owed to students. In any school activity, school personnel are generally assumed to be responsible, within responsible limits, for the welfare of students.

The fact that a mishap takes place does not automatically mean that there has been negligence. Genuine accidents do take place, and while they are unfortunate, no one can be blamed for them. Only if a court decides that a reasonably prudent person in the teacher's situation would have anticipated the mishap and would have acted to prevent it might the teacher be found negligent.

If students are to be placed in situations where the potential for injury exists, appropriate skill training and safety briefing must take place, and safety regulations conscientiously enforced. In addition, school officials are legally obligated to see that any facilities and equipment used are in safe condition.

Liability in Middle Years Human Ecology

The prudent teacher should ensure that every precaution against injury is taken. This should include periodic inspection of equipment, due concern for good discipline and safety practices, and proper supervision and competent teaching. The human ecology teacher should recognize potentially dangerous surroundings in instructional areas. Any potentially hazardous situations should be avoided. In order to reduce the possibility of injury, human ecology teachers should

- understand the safety element involved in each activity
- ensure a safe teaching environment
- use safe and tested equipment with which he or she is familiar
- understand the safety measures of learning activities specific to human ecology
- avoid the teaching of highly specialized or difficult techniques that are beyond the ability of students
- control/manage and organize students to avoid accident or injury

General Goals

The purpose of this safety and health document is to help teachers develop and operate a program that will prevent and control incidents. Such a program will protect students and increase the effectiveness of instructional methods and facility operations.

This document is also intended to provide our students and future workers with the skills, knowledge, and attitudes needed to keep them free and safe from injury now and later on the job.

The skills acquired through an effective program can be transferred to students' daily activities and personal choices. Positive attitudes must be developed through education, beginning at a young age and reinforced throughout daily activities and teachings. For safety and health education to be effective, it is important that it be viewed as an ongoing partnership among the school, home, community, and workplace, focusing on the following:

- Lessening the risk of injuries
- Evaluating potentially dangerous situations and being innovative in safely dealing with such concerns
- Understanding safety and health as an integral part of life
- Practising sound decision-making and preventative techniques
- Demonstrating critical-thinking and problem-solving skills that will allow them to solve health and safety problems
- Recognizing risks and hazards
- Recognizing and responding appropriately to emergency situations
- Possessing the knowledge, confidence, and initiative that will enable them to recognize and change behaviours and practices in their work environment

- Demonstrating the ability to influence and communicate effectively with colleagues and employers in working together to maintain a healthy and injury-free work environment
- Recognizing safety and health warning signs and symbols (e.g., WHMIS)

The elimination or reduction of incidents should be of primary concern to everyone in the school. A formal safety and health program will provide a means for teachers and students to accomplish safety and health objectives.

Establishing Program Outcomes

Establishing outcomes and policy to guide the safety and health program's development is critical to its design and organization. The first step is to establish the following:

1. Gaining and maintaining support for the program
2. Motivating, educating, and training those involved in the program to recognize and correct or report hazards located in the labs/facilities
3. Incorporating hazard control into the design
4. Providing a program of inspection and maintenance for machinery, equipment, tools, and facilities
5. Incorporating hazard control into school teaching and educational techniques and methods
6. Complying with established safety and health standards

Policy Statement

Once the objectives have been formulated, the second step is establishing the policy statement with the active participation of all those involved in the program's operation. The policy statement should reflect the following:

1. The importance the teacher places on the health and well-being of his or her students
2. The emphasis the school places on efficient operations with a minimum of incidents and losses
3. The intention of integrating hazard control
4. The necessity for active leadership, direct participation, and support from the entire school organization
5. The intent of the school administration to bring its facilities, operations, machinery, equipment, tools, et cetera, within the compliance of health and safety standards and regulations

The Need for Adequate Budget

There can be no compromise when it comes to the safety of our children. Principals, in collaboration with their teachers and safety and health committees, should define their safety and health program needs and allocate a sufficient level of resources to meet those needs, along with those allocations traditionally associated with the training and education process.

Responsibilities for the Safety and Health Program

Responsibility for the safety and health program can be established at the following levels:

1. School administration
2. Safety and health committees
3. Teachers
4. Support staff
5. Students
6. Parents

Responsibilities of School Administration

Before any safety and health program gets underway, it is essential that such a program receive support and commitment from school administration. The school board, superintendent, principal, and others concerned with administration and supervision must accept full responsibility for the safety and health program as it is established, furnish the drive to get the program started, and oversee its operations. Their responsibility is essential to the continuing obligation to carry out an effective safety and health program.

Furthermore, principals and supervisors must invite discussion with teachers and others in the program during pre-planning meetings and periodically throughout the school year. Such discussions may deal with program progress, specific needs, and a review of school safety and health procedures and alternatives for handling emergencies

in the event of an incident. Specifically, responsibility at this level is to

- set objectives and policy
- ensure that the necessary information, facilities, tools, and equipment are available to conduct a safe program
- ensure sufficient funds are available for an effective safety budget
 - This would include providing continued EA support for students in need of adaptation or extra supervision for safe behaviour management, especially if support is already provided in other curricular areas.
- promote and support professional development regarding safety initiatives in human ecology

In consultation with the safety and health committee, the school principal must provide meaningful criteria to measure the success of the safety and health program and to provide information upon which to base future decisions.

Responsibilities of Teachers

Teachers have a professional responsibility to safeguard and educate those who have been placed under their supervision. Jointly with the principal, teachers are responsible for creating a safe and healthy instructional setting, integrating hazard identification, assessment of the risks, and control of the situation in all aspects of the facility.

For all practical purposes, the teachers are the eyes and ears of the facility control system. On a day-to-day basis, teachers must be aware of what is happening in their facilities, who is doing it, how various tasks are being performed, and under what conditions. They must be ready to change part of an operation or the entire operation if they perceive the immediate need for corrective action.

Human ecology teachers are to review school safety and health policies and regulations within their school/ division. This may require teachers to have up-to-date training or certification in areas related to instruction, such as first aid and/or safe food handling certification courses.

The following are the primary safety and health responsibilities of teachers using human ecology facilities:

- To demonstrate and model safe work procedures
Note: Teachers are role models to their students and should use exemplary behaviour in a human ecology classroom by demonstrating and modelling safe work procedures. Clean, appropriate clothing allowing unrestricted movement is recommended for all hands-on activities. Since there is the possibility of personal injury and food-borne illness, it is strongly recommended that teachers ensure that
 - inappropriate jewelry be removed
 - long hair be tied up/back
 - appropriate footwear be worn with adequate foot coverage (e.g., avoid flip-flops)
 - applicable protective equipment is used at all times

- To train and educate students in safe work methods and practices
- To actively participate in and support the school safety and health committees
- To supervise and evaluate student performance with consideration given to safe behaviour and work methods
- To monitor the facility on a daily basis for human, situational, and environmental factors capable of causing incidents
- To correct hazards detected while monitoring or to report such hazards to the persons who can take corrective action
- To investigate all incidents occurring within their labs/ facilities to determine the cause
- To ensure that hazard recognition and control information is included in each instructional module and administration session
- To develop a positive student safety attitude for school, home, social settings, and workplace activities

Responsibility of Support Staff

Support staff (e.g., educational or instructional assistants, student services, etc.) play a significant role in helping to create and maintain a safe and productive learning environment, especially in a human ecology course. They are at the forefront of designing specialized programming and are often privy to information that a human ecology teacher is not.

Support staff may provide a variety of supports, from aiding in the development of basic fundamental life skills to practising advanced behaviour management. Support staff may be addressing a diversity of needs for one student or caring for several students, collectively, with a huge variety of unrelated needs—especially students who are in need of adaptations to human ecology courses. Physical limitations or behavioural challenges may increase risk for potential accidents. Because support staff members are such an integral component to a safe experience for the student(s) in their charge, they should be ready to contribute to all forms of safety in a human ecology course.

In general terms, their responsibility might be to assist in the preparation of human ecology lab materials as requested by teachers for students with special needs to allow students with physical limitations to actively participate (e.g., assisting special needs students with safe setup and/or cleaning of tools and equipment; ensuring all students (special needs or not) who are under their direct care are safe and on task). However, their role may also include promoting and maintaining safety standards in the lab and classroom activities, and ensuring that all human ecology tools and equipment are in good condition.

The following are the primary safety and health responsibilities of support staff:

- To demonstrate and model safe work procedures as demonstrated or instructed by the human ecology teacher

Note: Support staff, like teachers, are role models to their students and should use exemplary behaviour in a human ecology classroom by demonstrating and modelling safe work procedures. Clean, appropriate clothing allowing unrestricted movement is recommended for all hands-on activities. Since there is the possibility of personal injury and food-borne illness, it is strongly recommended that support staff ensure that

- inappropriate jewelry be removed
- long hair be tied up/back
- appropriate footwear be worn with adequate foot coverage (e.g., avoid flip-flops)
- applicable protective equipment is used at all times
- To demonstrate an active interest and to comply with school safety and health policies and regulations (as demonstrated or explained by the teacher)
- To monitor the facility for human, situational, and environmental factors capable of causing incidents to students with special needs (i.e., to educate students on the best ways to conduct safe work methods and practices)
- To correct hazards detected while monitoring or to report such hazards to the human ecology teacher who can take corrective action
- To help maintain human ecology lab safety equipment during class time
- To ensure all human ecology equipment is in good working condition and to report equipment that needs repair or replacement

- To identify, document, and inform human ecology teachers of safety problems related to specific lab activities, and to recommend adaptations to activities when necessary to eliminate problems while still meeting curriculum goals
- To work with the human ecology teacher to promote safe procedures and maintain safety standards in all human ecology activities

- To communicate to the human ecology teacher any relevant information about students who are in need of course adaptations, preferably before the course begins

Note: Students who are at risk of putting themselves or others in harm's way should be reported to the human ecology teacher before the course begins, as they may require increased awareness by the teacher and special course adaptation. When students have educational assistants (e.g., support for cognitive, behavioural, EAL needs) at their home school for regular class instruction, the home school should provide continued support in the human ecology classroom.

- At-risk conditions include, but are not limited to, any of the following:
 - Students who have medical (e.g., seizures, severe allergies resulting in anaphylactic shock), emotional, social, cognitive, or other conditions.
- Students should report any allergies, sensitivities, and intolerances, especially those related to food products, to the human ecology teacher before the course begins. This also includes any skin sensitivities (e.g., if a student is allergic to dish soap).

- If the budget permits (or the student provides these items), appropriate ingredient substitutions and/or separate tools and equipment should be made available whenever possible. Appropriate care should be given to items that may need to be stored separately from normal classroom items (e.g., ingredients/tools for celiac disease).
- EAL students
 - In extreme EAL cases, a translator or translating device (e.g., Google translate on a tablet) should be provided to both the teacher and the student to ensure accurate safety guidelines and expectations are clearly communicated and followed.

Responsibilities of Students

Everyone has the right to a safe human ecology experience, especially students. Students constitute the largest segment of the school population and are responsible for making good safety and health decisions. Students who actively participate in safety training help in preventing injury and equipment damage. Sequential skill development is essential for the safety of students. Readiness is achieved through competence in previous levels and ongoing evaluation is necessary, particularly in high-risk activities such as cutting and stove usage.

Students have the following responsibilities:

- To follow school safety and health rules and regulations and work according to standard facility practices (as demonstrated and explained by the teacher)

Note: Students should practise exemplary behaviour in a human ecology classroom, as instructed by the teacher. Clean, appropriate clothing allowing unrestricted movement is recommended for all hands-on activities. Since there is the possibility of personal injury and food-borne illness, it is strongly recommended that students ensure that

- inappropriate jewelry be removed
- long hair be tied up/back
- appropriate footwear be worn with adequate foot coverage (e.g., avoid flip-flops)
- applicable protective equipment is used at all times
- To interpret and demonstrate to the satisfaction of the teacher all safe operating procedures regarding materials, tools, mechanical, and personal safety
- To recognize and report to the teacher hazardous conditions or work practices
- To use PPE (Personal Protective Equipment), safety equipment, tools, and machinery as they were designed.
- To report all injuries to the teacher
- To practise correct safety techniques, activity-specific behaviours, and etiquette, as demonstrated or explained by the teacher

Safety education should be an integral part of every instructional period and should be demonstrated in the lab area and when handling any tool or equipment.

Responsibilities of Maintenance

Those involved with the maintenance of equipment, machinery, and facilities play an important role in reducing incidents in the school lab/facility. The following are some of their responsibilities:

- To provide planned preventative maintenance on electrical systems, machinery, and equipment to prevent abnormal deterioration, loss of services, or safety and health hazards
- To provide for the timely collection and disposal of scrap materials and waste
- To ensure that equipment and facilities are of good quality and periodically safety-tested (Equipment designed to support student learning should be stable, secure, and supplied with appropriate accessories. Adequate and safe storage should be provided for all dangerous tools and equipment.)
 - Routine lab inspections (e.g., examining dishes to ensure they have been washed, dried, and stored properly; examining sewing machines and unplugging irons for safe storage, etc.) should be done before the end of every class.
 - Floors should be clean, smooth, and free of foreign objects.
 - Surfaces should be free of glass, cans, bottles, etc.
 - Special care should be followed during the safe removal of broken dishes or shattered glass. For example, sharp objects should be wrapped in wads of paper before being discarded in

the garbage for everyone's safety, including custodians.

The Role of the Workplace Safety and Health Committee

The role of the committee must not be confused with the responsibilities of principals or teachers. The committee brings together workers' in-depth practical knowledge of specific jobs and principal knowledge of the organization's "big picture" to provide input and advice on safety and health matters. The committee should also monitor the workplace safety system (as determined by the safety and health program) to ensure that it is working properly. The school division remains ultimately accountable for the final decision.

The committee should be used to assess the effectiveness of the workplace safety and health program. The committee may conduct a safety and health inspection.

Responsibilities of Parents

Parents are thought of as an important part of an effective human ecology/technology education safety and health program, as their support and understanding will help strengthen such a program. Parents complement the school effort by placing a strong value on safety and health while their children are at home, at work, involved in recreation, or being transported.

Their responsibilities include the following:

- To inform the school of health concerns that may affect their child's daily activities within the facility
- To be aware of the potential illness and injury their children are exposed to during their education and training
- To support the teacher and the principal when penalties must be assigned for violations of safety and health rules

2. Setting Up and Maintaining a Safe Human Ecology Facility

Achieving a Safe Facility

The intent of this section is to help the teacher achieve and maintain a safe facility.

Topics of this section include the following:

- Safety and health inspections
- Personal protective equipment
- Hazard analysis
- Incident investigation techniques

Safety and Health Inspections

Purpose

To provide the teacher with an understanding of the inspection process and the ability to carry out an effective safety and health inspection. This section will cover the following:

1. The purpose of inspections
2. The types of inspections
3. The persons involved in the inspection process
4. Techniques
5. Methods of recording

Introduction

Safety and health inspections are an important part of the hazard control process. Regular inspections play an important part in providing a safe environment for our students.

Mandatory Inspections

Every school facility and each of its processes and operations contain potential hazards, which come about through normal use or through changes and additions of new equipment. One way of keeping aware of hazards is through continuous inspections.

Purpose of Inspection

- To spot potential hazards before an incident occurs
- To assess the hazard
- To find improvements and corrections to improve overall operations and increase effectiveness
- To do all of the above, every day

Inspections may be classified as periodic or continuous.

Types of Inspection

Periodic Inspection

A safety and health inspection is thorough and systematic. These inspections can be conducted monthly or bi-monthly. This type of inspection covers all areas (e.g., operations, equipment, etc.).

Continuous Inspection

Continuous inspections should be conducted by students, teachers, support staff, department heads, or supervisors as part of their instructional, supervisory, or assigned duties. Continuous inspections provide an immediate chance to examine and, if necessary, to correct or to report any unsafe situations (if correction is not possible).

Who Should Make Inspections?

Teachers

Teachers must make continuous inspections and be aware of changing conditions, operations, and work methods. These inspections may have to be made several times a day (i.e., at the beginning of each day and, for certain equipment, at the beginning of each class).

Support Staff

Support staff must make preliminary inspections during their time in a human ecology classroom and lab. These inspections may have to be made several times throughout class time (i.e., during the setup, handling, and storage of tools and equipment; continuous behavioural and hygienic management).

Students

Student inspections allow students to take a major role in their lab/facility, thus giving them a sense of ownership of their lab/facility.

Department Head or Supervisors

A school/school division that has a department head or supervisor for human ecology has a further advantage in safety and health inspections. The department head or supervisor may record any unsafe conditions and practices and forward the information to the teacher and/or maintenance personnel if required.

Inspection Procedures

An inspection program requires that those conducting the inspections have

- a sound knowledge of the facility
- a systematic inspection process for the facility
- a method of reporting, evaluating, and using the data gathered

What Should Be Inspected?

When inspecting, the following should be considered:

- **Materials and substances:** Inspect those materials and substances that may cause injury, illness, fire, or other hazards.
- **Equipment and tools:** Ensure that they are free of defects and other hazards.
- **Personal protective and safety equipment:** Ensure that there is adequate protection for all students involved and that the equipment is in good shape (i.e., oven mitts, presser foot on sewing machine is securely in place, etc.).
- **Working and walking surfaces:** Areas must be clean and functionally safe.
- **Environmental factors:** Ensure lighting and ventilation (e.g., fans in a foods lab) are in place.
- **Housekeeping:** Material storage, waste disposal, floor, and counters should be neat and tidy.
- **First-aid kit:** Ensure the first-aid kit is stocked with adequate supplies and in plain sight.

- **Electrical:** Switches, breakers, fuses, cords, and plugs must be in compliance with regulations.
- **Chemical storage, handling, and use:** Ensure that materials (e.g., cleaning supplies with bleach) are stored properly.
- **Fire protection and extinguishing systems:** Fire blanket, fire exit doors, exit signs, etc., must be in good order and in working condition.
- **Preventative maintenance:** The teachers' consistent preventative maintenance in the lab/facility and with tools will help to ensure incident prevention and student safety.

Hazardous Equipment

In the process of inspection, various actions or corrections may have to take place. When a broken or damaged tool is found, the teacher should immediately remove it. Large equipment, however, may have to be properly tagged. The teacher may also need to perform an electrical lockout by placing a mini-padlock through one of the tines of the power cord plug to prevent unauthorized use of the tool (e.g., an electric mixer that has parts that jam).

Summary

Acting on the information gathered from an inspection is as important as conducting the inspection in the first place. It is necessary that the inspection team brings problems and recommendations for corrective action to the attention of those involved (i.e., teacher, principal, or workplace safety and health committee). Based on problems uncovered and recommendations by Workplace Safety and Health, they must decide on the best course of action.

Information from inspections should never be seen as fault-finding and criticism, but rather as fact-finding with an emphasis on locating potential hazards that may have an adverse effect on the safety of the operation. The information should be viewed as the basis for establishing priorities and implementing programs that will improve conditions to provide a safe environment for our students.

Personal Protection Equipment Requirements (PPE)

Education

Unless students are educated in the use and care of PPE, it may do little to fulfill its intended purpose. It is recommended that human ecology teachers instruct and role model safety at all times, which includes the use of protective clothing and equipment.

Head Protection

There is always a danger of hair becoming entangled in moving parts (e.g., electric mixer or embroidery machine that doesn't require the foot being on the foot control at all times) or dangling into food (hygiene safety). Students with long hair should have their hair tied back, secured, or tucked underneath their clothing.

Hand Protection

The hazards in the human ecology facilities include burns, scalds, cuts, etc. The use of heat protection, like oven mitts, is good work practice to prevent hand injuries during handling of hot tools and materials.

Foot and Leg Protection

Students may require protection from the hazards of broken shards of dishes or glasses, splashes of hot liquids, and mishandled cutting tools like knives and fabric scissors. Personal protective footwear in a human ecology lab may include footwear that has adequate foot coverage. This can protect feet against injuries, such as those from falling knives, hot spills, or irons that accidentally topple over.

Hazard Analysis

The benefit of hazard analysis is to increase the awareness of potential hazards.

Incident Investigation Techniques

The goal of facility operations hazard analysis is to identify and evaluate hazards in the facility before they result in incidents. The concept behind this is sound, however, there may be times when we will not be able to find and eliminate problems before incidents occur. When an incident occurs, we must be prepared to acquire through investigation as much information as possible about the cause so that similar incidents can be avoided.

Reasons for Investigation

Teachers should become familiar with school/school division policies regarding incident investigation. The following are important reasons for investigating incidents:

- To determine the cause of the incident
- To find out ways to prevent further similar incidents
- To uncover and reduce indirect incident causes

Fact-Finding not Fault-Finding

Remember, incident investigation is fact-finding rather than fault-finding. The intent of the investigation is to find the cause and/or reason of the error/defect and make the necessary corrections so further incidents can be avoided.

Investigation by the Teacher

The teacher is the best one to do the investigation. The teacher is the one who was in the room at the time of the incident. The teacher is

- familiar with the students, their abilities, and their personal characteristics
- aware of the equipment, tools, and operations

Key Points for Interviewing

When investigating an incident, the following key points are important:

- Conduct the interview as soon as possible.
- Interview one person at a time.
- Explain the purpose of the investigation.
- Make the witnesses feel at ease.
- Be diplomatic in your task.
- Keep the questions simple.
- Avoid leading questions.
- Allow students to explain in their own words, uninterrupted, their story of the situation.
- Review the information given.
- Allow students to explain how the same incident can be prevented in the future.

For more information, see the Manitoba Education and Advanced Learning documents *Keeping Your Facilities SAFE: A Support Document for Industrial Arts Teachers* (available online at <www.edu.gov.mb.ca/k12/docs/support/ia_safe/>) and *Science and Safety: A Kindergarten to Grade 12 Resource Manual for Teachers, Schools, and School Divisions* (available online at <www.edu.gov.mb.ca/k12/docs/support/scisafe/index.html>).



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