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

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

Human ecology courses provide an interdisciplinary approach that integrates social and physical science theory and action through the study of everyday living. It contributes to empowering individuals to become active and informed members of society who are able to live independently, within thriving families and in dynamic communities.

Human ecology education provides students with essential knowledge and transferable skills that are applicable to their personal lives and success in learning, life, and work.

Mission

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

- discover knowledge that enhances everyday living
- explore and apply experiential learning
- integrate the principles of preventative, proactive, and practical approaches to support individuals in their personal lives, families, and communities

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, 2018 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

Course Titles/Descriptions

This curriculum replaces the former curriculum, *Middle Years Human Ecology: Manitoba Curriculum Framework of Outcomes* (2015).

Clothing and Textiles

Clothing and textiles courses 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 area of study 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.

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.

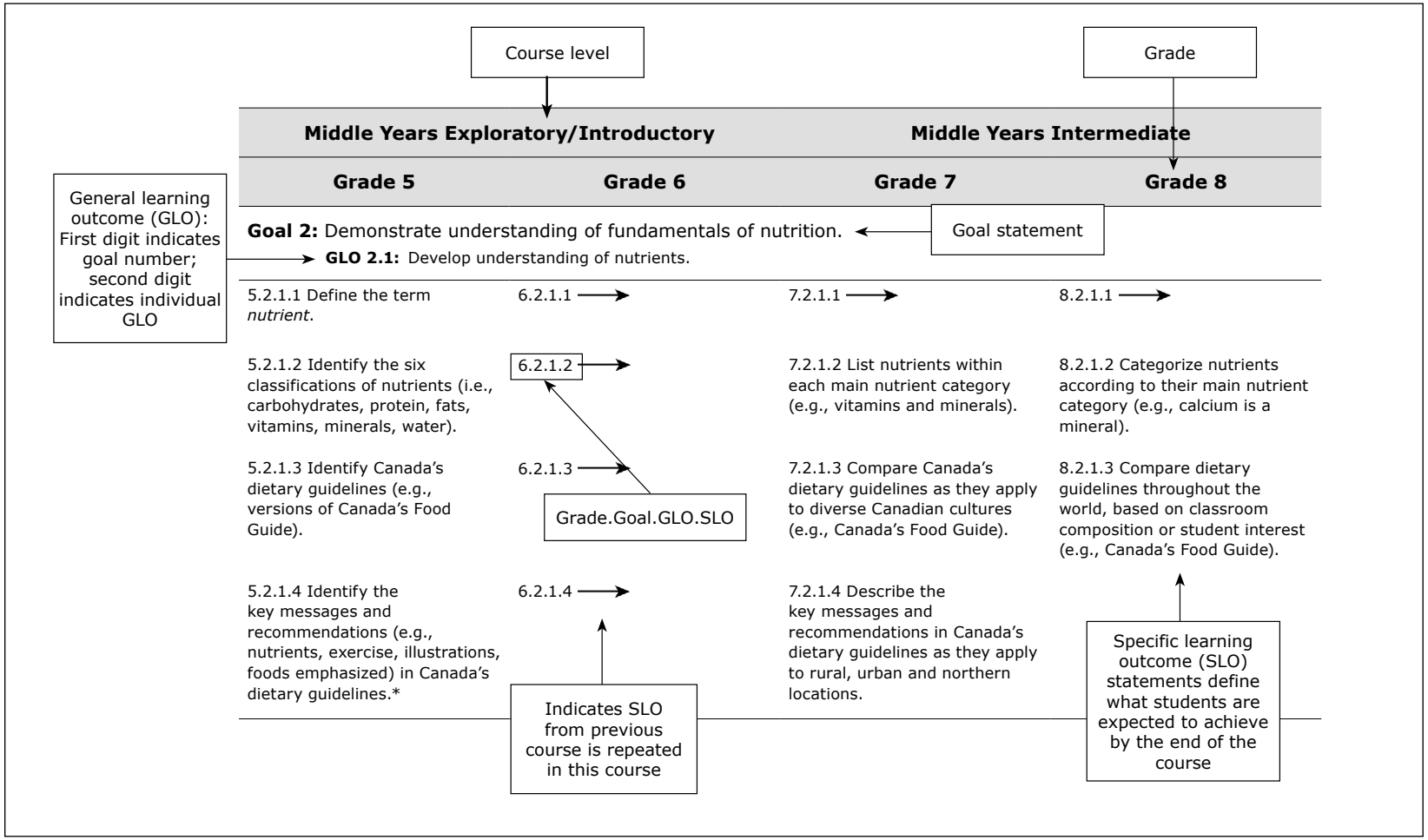
Teacher and Administrator Safety Implications

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 Manitoba Education and Training *Administrative Handbook: School Administration – Negligence and Liability* (available on the department website at 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.

Guide to Reading Middle Years Human Ecology Goals and Learning Outcomes



Curriculum Implementation Dates

Middle Years Human Ecology: Manitoba Curriculum Framework of Outcomes, 2018 is intended to provide a guide for curriculum implementation. This revised human ecology curriculum replaces the former curriculum: *Middle Years Human Ecology: Manitoba Curriculum Framework of Outcomes* (2015). During voluntary implementation (fall 2018), teachers have the option of teaching the new Senior Years curriculum or using the previous curriculum. Under system-wide implementation (fall 2019), all human ecology teachers in Manitoba will teach the new curriculum.

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.