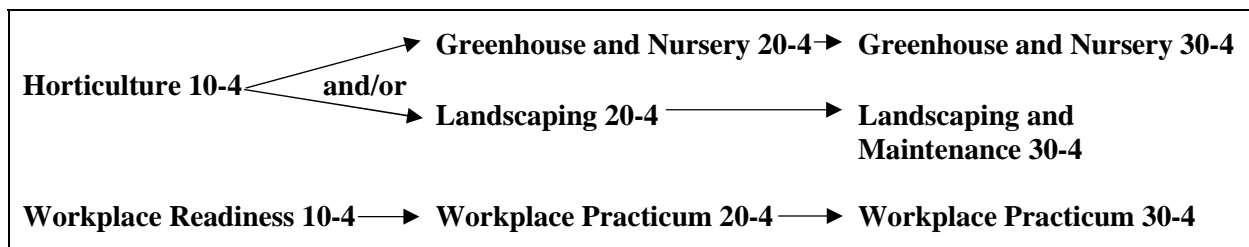


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## KNOWLEDGE AND EMPLOYABILITY HORTICULTURE

### COURSE SEQUENCE



Knowledge and Employability 10-level courses provide opportunities for *exploration* of, and *orientation* toward, an occupational grouping in a single career field. In 20-level courses, students progress from *orientation* toward *preparation*; and in 30-level courses, students are involved in *preparation* for direct job entry.

Horticulture is the science or art of growing and maintaining fruits, vegetables, flowers and ornamental plants. Horticulture encompasses many different career paths with entry-level opportunities in each horticultural field. Entry-level jobs are usually available in most communities. Some involve full-time work and others involve seasonal outdoor work. For all of these horticultural jobs, students will need to know the basics of growing plants.

- All courses focus on developing career awareness, safety standards and knowledge of tools, equipment and materials related to the industry.
- Horticulture 10-4 provides a basis for, and an introduction to, Greenhouse and Nursery 20-4 and Landscaping 20-4.

- Greenhouse and Nursery 20-4 and 30-4 focus on planting and caring for a variety of plants.
- Landscaping 20-4 and Landscaping and Maintenance 30-4 focus on the creation and maintenance of a landscape environment.
- Students interested in horticulture should be encouraged to take both courses at the 20 and 30 levels.
- A related Workplace Practicum or Work Experience course is recommended to further enhance employability and occupational skills and to adequately prepare students for entry into the work force. In senior high school, a 30-level Workplace Practicum course, 30-level Work Experience course or 30-level Green Certificate course is required to fulfill the requirements of a Certificate of High School Achievement. Workplace practicums are supportive work placements in a related field that will allow students to validate their learning in the workplace.

## **COURSE DELIVERY**

This Knowledge and Employability occupational strand includes two sequences of 5-credit courses. Students progress through the courses in a sequence and may combine courses across sequences to increase the depth of their knowledge.

The 10-level course is a prerequisite for both of the 20-level courses within the strand. The 20-level course in each sequence is a prerequisite for the 30-level course in that sequence.

The occupational courses may be offered in a variety of learning environments that range from a classroom in a school to a business/industry work site. The courses offer a balance between school-based and work-based learning that provides options for students to enter the workplace or to pursue post-secondary education or training.

## **GOALS**

Students in Knowledge and Employability occupational courses will:

- identify standards determined by the workplace for the academic and occupational competencies considered necessary for success
- demonstrate practical applications through on- and off-campus experiences/community partnerships
- experience career development to assist them in exploring careers, assessing their career skills and developing a career-focused portfolio
- develop interpersonal skills to ensure respect, support and cooperation with others
- develop safety awareness and habits to ensure a safe working environment.

## COMPETENCIES FRAMEWORK

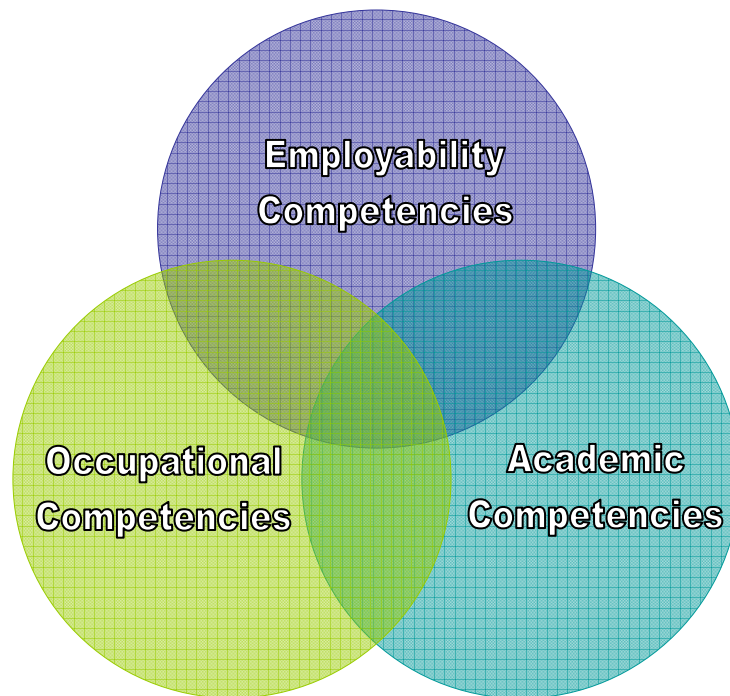
Each Knowledge and Employability occupational course is made up of three elements: employability, occupational and academic competencies. The combination of these three elements is essential to the delivery of the occupational courses.

- Employability competencies are transferable to all occupations and are consistent throughout all courses.

- Occupational competencies are specific to an occupational area and provide the context through which students will develop their employability competencies.
- Academic competencies are to be reinforced and further developed through the occupational context that provides relevance to the academic courses.

The integration of the three elements is essential to equip students to make the transition from school to the workplace.

## KNOWLEDGE AND EMPLOYABILITY OCCUPATIONAL COURSES COMPETENCIES FRAMEWORK

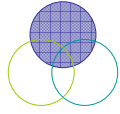




## HORTICULTURE 10-4 GENERAL OUTCOMES

<b>Employability Competencies</b>	<b>Students will develop these competencies throughout the learning process and demonstrate them in daily life and the workplace.</b>
Managing Transitions	<ul style="list-style-type: none"> <li>• Students will develop an awareness of how learning contributes to personal success.</li> <li>• Students will develop an ability to manage change effectively.</li> <li>• Students will explore and discover personal aptitudes and interests related to occupational opportunities.</li> </ul>
Personal Management	<ul style="list-style-type: none"> <li>• Students will develop self-esteem, confidence and the ability to set personal goals and priorities.</li> <li>• Students will identify and understand the risks associated with occupational activities.</li> </ul>
Working with Others	<ul style="list-style-type: none"> <li>• Students will develop communication skills and strategies in an occupational context.</li> <li>• Students will demonstrate respect for the thoughts and opinions of others in the group.</li> <li>• Students will demonstrate positive effort and behaviour toward achieving a group's goals.</li> </ul>
<b>Occupational Competencies</b>	<b>Students will develop and demonstrate the following competencies to succeed in a specific occupation or career.</b>
Achieving Results	<ul style="list-style-type: none"> <li>• Students will explore a variety of occupations within a horticulture career environment.</li> <li>• Students will develop safe workplace practices and procedures.</li> <li>• Students will be introduced to technology to develop a high-quality product or service.</li> <li>• Students will familiarize themselves with a variety of plants.</li> <li>• Students will identify the different plant parts and their functions.</li> <li>• Students will develop an understanding of the propagation process.</li> <li>• Students will grow a variety of plants.</li> </ul>
Ensuring Quality	<ul style="list-style-type: none"> <li>• Students will develop an understanding of the value of effective task management processes by applying knowledge and skills to simulated and actual work situations.</li> </ul>
<b>Academic Competencies</b>	<b>Students will continue to develop these minimum academic competencies that provide a foundation for further learning.</b>
Communication	<ul style="list-style-type: none"> <li>• Students will enhance their ability to listen, speak, read and write effectively.</li> </ul>
Thinking	<ul style="list-style-type: none"> <li>• Students will develop problem-solving strategies.</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>• Students will understand the value of numeracy skills in the workplace.</li> </ul>
Information Technology	<ul style="list-style-type: none"> <li>• Students will familiarize themselves with the information technology used in daily workplace operation.</li> </ul>

## HORTICULTURE 10-4



**EMPLOYABILITY COMPETENCIES:** These competencies are developed throughout the learning process and are demonstrated in daily life and the workplace. Students will develop and demonstrate these competencies through individual effort and interpersonal interaction while completing a variety of projects/activities.

### MANAGING TRANSITIONS

General Outcomes	Specific Outcomes
<p><b>Students will develop an awareness of how learning contributes to personal success.</b></p>	<p><b>Lifelong Learning</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify learning preferences and strengths and apply learning styles and strategies appropriate to the situation</li> <li>• set learning goals and identify how formal/informal learning can help them achieve goals</li> <li>• develop an awareness of senior high school courses and work experience and identify educational possibilities; e.g., Registered Apprenticeship Program (RAP), Green Certificate, Career and Technology Studies (CTS) and Career Internship.</li> </ul>
<p><b>Students will develop an ability to manage change effectively.</b></p>	<p><b>Adapting to Change</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify available support resources and assess potential barriers</li> <li>• prepare an action plan to proactively respond to a particular change or challenge.</li> </ul>
<p><b>Students will explore and discover personal aptitudes and interests related to occupational opportunities.</b></p>	<p><b>Career Development</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• create an inventory of personal competencies, interests, goals and work preferences and link this inventory to career options</li> <li>• identify sources of support for investigating and finding work; e.g., Alberta Learning Information Service (ALIS) Web site</li> <li>• describe how work contributes to individual goals</li> <li>• explore the workplace through community partnerships and identify employer and employee expectations, rights and responsibilities.</li> </ul>

## PERSONAL MANAGEMENT

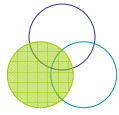
General Outcomes	Specific Outcomes
<b>Students will develop self-esteem, confidence and the ability to set personal goals and priorities.</b>	<b>Self-development</b> <i>Students will:</i> <ul style="list-style-type: none"><li>• identify personal characteristics, strengths and talents and establish an action plan to build on them</li><li>• recognize the use of strengths and talents to achieve goals</li><li>• identify acceptable and appropriate behaviours and present themselves to suit an activity or role; e.g., body language, grooming, clothing, manners</li><li>• describe personal beliefs about what is right and wrong and assess the consequences of ethical/unethical behaviours.</li></ul>
<b>Students will identify and understand the risks associated with occupational activities.</b>	<b>Risk Management</b> <i>Students will:</i> <ul style="list-style-type: none"><li>• identify current health and safety procedures; e.g., at home, at school, in the community and in the workplace</li><li>• identify risks that could impact themselves and others and identify hazards in the work environment; e.g., chemical, physical, biological and ergonomic</li><li>• identify a potential emergency situation and develop strategies for personal emergency responses</li><li>• identify sources of support when taking risks in their personal lives and in the workplace; e.g., entrepreneurship.</li></ul>

## WORKING WITH OTHERS

<b>Students will develop communication skills and strategies in an occupational context.</b>	<b>Interpersonal Communication</b> <i>Students will:</i> <ul style="list-style-type: none"><li>• demonstrate appropriate communication strategies for communicating thoughts and feelings; e.g.,<ul style="list-style-type: none"><li>– listen without interrupting</li><li>– contribute to be heard</li><li>– disagree courteously</li><li>– accept conflicting opinions</li><li>– use appropriate language and body language</li></ul></li><li>• develop awareness of verbal and nonverbal communication strategies</li><li>• improve their ability to communicate by working with others</li><li>• communicate common goals and expectations to improve their team's ability to achieve goals</li><li>• identify causes of conflict.</li></ul>
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General Outcomes	Specific Outcomes
<p><b>Students will demonstrate respect for the thoughts and opinions of others in the group.</b></p>	<p><b>Building Community</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify commonly accepted courteous behaviour</li> <li>• assess and respect how their personal values and beliefs differ from those of others and how those beliefs impact personal behaviour</li> <li>• identify the value of volunteering in community activities; e.g., charity work, community car wash.</li> </ul>
<p><b>Students will demonstrate positive effort and behaviour toward achieving a group's goals.</b></p>	<p><b>Teamwork</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify team goals</li> <li>• work independently and with others to support team goals; e.g., <ul style="list-style-type: none"> <li>– generate ideas</li> <li>– assess resources</li> <li>– contribute abilities and interests</li> <li>– monitor progress</li> <li>– share responsibility for completion of a task</li> </ul> </li> <li>• establish short- and long-term team goals.</li> </ul>





**OCCUPATIONAL COMPETENCIES:** Students will develop and demonstrate the following competencies to succeed in a specific occupation or career. They will achieve results through a variety of projects/activities as appropriate to enhance their knowledge and skills. Students will ensure the quality of their work through effective task management and will highlight their achievements in a career-based portfolio.

## ACHIEVING RESULTS

General Outcomes	Specific Outcomes
<p><b>Students will explore a variety of occupations within a horticulture career environment.</b></p>	<p><b>Career Awareness</b></p> <p><b>Exploration</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• research different occupational specializations within the horticulture field; e.g.,               <ul style="list-style-type: none"> <li>– greenhouses</li> <li>– nurseries</li> <li>– landscaping</li> <li>– garden centres</li> <li>– grounds maintenance</li> <li>– florist shops</li> <li>– market gardening</li> </ul> </li> <li>• identify local opportunities within a career field</li> <li>• define and recognize entrepreneurship as a potential career path</li> <li>• research employment information; e.g., duties, working conditions, personal characteristics, education, salary</li> <li>• inventory personal competencies, interests, goals and work preferences and link this inventory to career options</li> <li>• investigate the workplace through community partnerships; e.g.,               <ul style="list-style-type: none"> <li>– identify employer and employee expectations, rights and responsibilities</li> <li>– describe how work contributes to individual goals.</li> </ul> </li> </ul> <p><b>Standards</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify workplace protocols, procedures and standards of conduct; e.g.,               <ul style="list-style-type: none"> <li>– clean the entire work area, return tools to designated areas, minimize the waste of materials</li> <li>– identify related health and sanitation standards</li> <li>– display punctuality and come prepared for classroom and laboratory activities</li> <li>– treat the laboratory area with care and with attention to potential workplace health and safety risks</li> </ul> </li> </ul>

General Outcomes	Specific Outcomes
<p><b>Students will develop safe workplace practices and procedures.</b></p>	<ul style="list-style-type: none"> <li>– treat other members of the team with respect</li> <li>– use appropriate language and terminology</li> <li>– wear appropriate dress.</li> </ul> <p><b>Workplace Health and Safety</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify and demonstrate preventive measures to avoid accidents and injury to themselves and others during horticulture procedures; e.g., <ul style="list-style-type: none"> <li>– identify safety device locations in the laboratory or classroom; e.g., eyewash station, emergency shut-off, fire extinguisher, emergency exits, telephone</li> <li>– demonstrate the correct procedures for addressing injuries</li> <li>– identify the proper use of tools with regard to other classmates and laboratory conditions</li> <li>– identify personal protective equipment (PPE); e.g., coveralls, proper eyewear, proper footwear</li> <li>– demonstrate proper body position while at a work station</li> <li>– maintain a safe and clean work area</li> <li>– identify and practise the safe use of electrical equipment</li> </ul> </li> <li>• demonstrate an understanding of the Workplace Hazardous Materials Information System (WHMIS) as it relates to the field of study and identify WHMIS symbols, classes and labelling requirements</li> <li>• recognize health and safety hazards associated with horticulture procedures</li> <li>• identify important standards (codes) and governing bodies in the horticulture industry.</li> </ul>
<p><b>Students will be introduced to technology to develop a high-quality product or service.</b></p>	<p><b>Products and Service</b></p> <p><b>Technology Integration</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• explore new and emerging products and technological advances used in horticulture.</li> </ul> <p><b>Tools and Equipment</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify common hand tools used in horticulture-related duties; e.g., shovels, rakes, pruners, dibbers, cultivators</li> <li>• identify common power equipment used in horticulture-related activities</li> <li>• identify the proper care, cleaning and maintenance of tools and equipment.</li> </ul>

**General Outcomes****Specific Outcomes**

**Students will familiarize themselves with a variety of plants.**

**Materials (growing media)**

*Students will:*

- identify growing media used to support plant growth; e.g.,
  - soil, such as black loam
  - sand
  - peat moss
  - clay
  - perlite
  - vermiculite
- recognize the texture of different soil types
- identify the drainage characteristics of different soil types
- identify soilless mixes and their composition
- explain the advantages of various modifiers.

**Providing Service**

*Students will:*

- identify client relationships or interactions within the field of horticulture
- identify services needed, required or provided
- collect necessary information to complete a purchase or fill out a work order
- identify the importance of customer or client service to all businesses/industries
- identify professional practices and work habits
- strive to meet and exceed the client's expectations.

**Plant Identification**

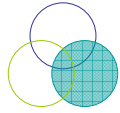
*Students will:*

- identify the characteristics and uses of plant groupings; i.e.,
  - annuals; e.g.,
    - pansy
    - petunia
    - marigold
    - geranium
    - impatiens
  - perennials; e.g.,
    - herbaceous
    - woody (trees, shrubs, evergreens)
  - weeds; e.g.,
    - chickweed
    - dandelion
    - quack grass
    - stinkweed
    - sow thistle

General Outcomes	Specific Outcomes
<p><b>Students will identify the different plant parts and their functions.</b></p>	<ul style="list-style-type: none"> <li>– interior plants; e.g., <ul style="list-style-type: none"> <li>• spider plant</li> <li>• ivy</li> <li>• fig</li> </ul> </li> <li>• demonstrate manual control of weeds through pulling, hoeing and cultivating</li> <li>• use catalogues and other publications to categorize a variety of plants.</li> </ul> <p><b>Plant Parts and Their Functions</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify and describe the basic function of each plant part; e.g., <ul style="list-style-type: none"> <li>– roots</li> <li>– stems</li> <li>– leaves</li> <li>– flowers</li> <li>– fruits</li> <li>– seeds.</li> </ul> </li> </ul>
<p><b>Students will develop an understanding of the propagation process.</b></p>	<p><b>Propagation</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• outline the basic practices of reproducing plants; e.g., <ul style="list-style-type: none"> <li>– cutting: <ul style="list-style-type: none"> <li>• practise taking cuttings of different plants</li> <li>• compare root development of cuttings in various media</li> </ul> </li> <li>– seeding: <ul style="list-style-type: none"> <li>• interpret planting instructions</li> <li>• demonstrate proper seeding techniques</li> <li>• maintain the seeds until germination.</li> </ul> </li> </ul> </li> </ul>
<p><b>Students will grow a variety of plants.</b></p>	<p><b>Growing Plants</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify the conditions necessary for plant growth; e.g., <ul style="list-style-type: none"> <li>– light</li> <li>– air</li> <li>– water</li> <li>– temperature</li> <li>– nutrition</li> <li>– space</li> </ul> </li> <li>• demonstrate the effects of eliminating one or more conditions required for plant growth</li> <li>• identify the materials needed for transplanting and potting plants; e.g., <ul style="list-style-type: none"> <li>– soil</li> <li>– containers</li> <li>– dibbers</li> </ul> </li> <li>• demonstrate transplanting and potting techniques</li> <li>• identify appropriate pot sizes.</li> </ul>

## ENSURING QUALITY

General Outcomes	Specific Outcomes
<p><b>Students will develop an understanding of the value of effective task management processes by applying knowledge and skills to simulated and actual work situations.</b></p>	<p><b>Task Management</b></p> <p><b>Outcomes</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• read and/or listen to instructions</li><li>• ask questions to clarify expected outcomes, procedures and timelines.</li></ul> <p><b>Decision Making</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• identify the parameters of the task</li><li>• generate and review alternative ideas and their consequences</li><li>• make a decision or select an idea.</li></ul> <p><b>Planning</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• identify the steps involved in managing a project</li><li>• prepare a sample project plan, including budget and timeline</li><li>• identify available tools, equipment and materials.</li></ul> <p><b>Performance Standards</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• identify expected standards for a product or service</li><li>• ensure a product or service meets expected standards and timelines.</li></ul> <p><b>Evaluation</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• identify opportunities for improving quality</li><li>• establish expectations and measures for improvements</li><li>• create evidence to support an understanding of task management and skill development for inclusion in a personal portfolio.</li></ul>



**ACADEMIC COMPETENCIES:** These are the minimum academic competencies that provide a foundation for further learning. The following outcomes are provided as a reminder to address these academic competencies within the occupational context and to reinforce cross-curricular connections.

## COMMUNICATION

General Outcomes	Specific Outcomes
<p><b>Students will enhance their ability to listen, speak, read and write effectively.</b></p>	<p><b>Listening, Speaking, Reading and Writing</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• read, view and interpret information presented in a variety of forms, including text, videos, graphs, charts, diagrams, manuals</li> <li>• identify a purpose for writing</li> <li>• print or write legibly, spell accurately and apply rules of grammar to construct text</li> <li>• listen and ask questions to expand information and to appreciate the points of view of others.</li> </ul>

## THINKING

<p><b>Students will develop problem-solving strategies.</b></p>	<p><b>Problem Solving</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify and define, and ask relevant questions to clarify, the problem</li> <li>• evaluate the results in terms of expected outcomes.</li> </ul>
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## NUMERACY

General Outcomes	Specific Outcomes
<p><b>Students will understand the value of numeracy skills in the workplace.</b></p>	<p><b>Basic Operations, Patterns and Relationships, Shape and Space, and Statistics and Probability</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• apply arithmetic operations, e.g., addition, subtraction, multiplication or division, to whole numbers and decimals and use number operations when creating and solving money problems</li> <li>• use calculators or computers, to perform calculations involving large and small numbers, when solving problems</li> <li>• apply concepts of rate, ratio, percentage and proportion to solve problems in a meaningful context</li> </ul>

General Outcomes	Specific Outcomes
	<ul style="list-style-type: none"> <li>• demonstrate a number sense for whole numbers 0 to 100 000 and explore proper fractions and decimals</li> <li>• estimate, measure and compare, using decimal numbers and standard units of measure, to solve problems in everyday contexts; e.g., mass, length, volume, time, perimeter, surface area</li> <li>• use metric and imperial units of measure.</li> </ul>

## INFORMATION TECHNOLOGY

**Students will familiarize themselves with the information technology used in daily workplace operation.**

### **Computer Operations**

*Students will:*

- identify the most appropriate technology tool for the task; e.g., fax, e-mail, networks, telephone
- identify appropriate telephone operations, answer telephone calls appropriately, locate numbers and make telephone calls
- identify basic computer operations; e.g.,
  - use basic keyboarding skills
  - store, organize and retrieve information correctly
  - locate and select information and ideas using appropriate technology and information systems; e.g., Internet
  - access, send and retrieve e-mail and attachments
- identify procedures for connecting and using audio, video and digital equipment
- identify procedures for sending and receiving faxes and setting up a fax machine
- identify procedures for copying and printing documents.

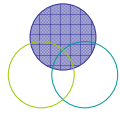




## GREENHOUSE AND NURSERY 20-4 GENERAL OUTCOMES

<b>Employability Competencies</b>	<b>Students will develop these competencies throughout the learning process and demonstrate them in daily life and the workplace.</b>
Managing Transitions	<ul style="list-style-type: none"> <li>• Students will apply their abilities and interests toward achieving learning goals.</li> <li>• Students will practise the skills and abilities needed to manage change.</li> <li>• Students will orient themselves toward an occupation that reflects their personal aptitudes and interests.</li> </ul>
Personal Management	<ul style="list-style-type: none"> <li>• Students will increase their self-esteem and confidence and enhance their ability to set personal goals and priorities.</li> <li>• Students will understand risks and be accountable for their actions.</li> </ul>
Working with Others	<ul style="list-style-type: none"> <li>• Students will practise effective communication skills and strategies in an occupational context.</li> <li>• Students will demonstrate the ability to understand and work within the culture of a group.</li> <li>• Students will plan and make decisions with others.</li> </ul>
<b>Occupational Competencies</b>	<b>Students will develop and demonstrate the following competencies to succeed in a specific occupation or career.</b>
Achieving Results	<ul style="list-style-type: none"> <li>• Students will orient themselves toward an occupation within a greenhouse and nursery career environment.</li> <li>• Students will demonstrate safe workplace practices and procedures.</li> <li>• Students will develop an increased awareness of technology to develop a high-quality product or service.</li> <li>• Students will identify a variety of plants.</li> <li>• Students will develop an understanding of botany.</li> <li>• Students will develop an understanding of the importance of soils and different media.</li> <li>• Students will develop an understanding of the importance of fertilizer in the growth process.</li> <li>• Students will recognize the procedures for plant growth and the mass production of plant material.</li> <li>• Students will develop an understanding of floral design and arrangements.</li> </ul>
Ensuring Quality	<ul style="list-style-type: none"> <li>• Students will continue to develop an understanding of the value of effective task management processes by applying knowledge and skills to simulated and actual work situations.</li> </ul>
<b>Academic Competencies</b>	<b>Students will continue to develop these minimum academic competencies that provide a foundation for further learning.</b>
Communication	<ul style="list-style-type: none"> <li>• Students will demonstrate effective listening, speaking, reading and writing skills.</li> </ul>
Thinking	<ul style="list-style-type: none"> <li>• Students will apply creative thinking skills to solve problems.</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>• Students will apply mathematical concepts to solve occupational problems.</li> </ul>
Information Technology	<ul style="list-style-type: none"> <li>• Students will enhance their performance by using information technology to help complete tasks.</li> </ul>

## GREENHOUSE AND NURSERY 20-4



**EMPLOYABILITY COMPETENCIES:** These competencies are developed throughout the learning process and are demonstrated in daily life and the workplace. Students will develop and demonstrate these competencies through individual effort and interpersonal interaction while completing a variety of projects/activities.

### MANAGING TRANSITIONS

General Outcomes	Specific Outcomes
<p><b>Students will apply their abilities and interests toward achieving learning goals.</b></p>	<p><b>Lifelong Learning</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• relate learning preferences and strengths to formal and informal learning opportunities and identify post-secondary opportunities within the related field</li> <li>• assess learning goals and current competencies, identify competencies needing development and identify and prioritize learning goals</li> <li>• create a pathway of senior high school courses to reflect learning goals</li> <li>• identify educational possibilities; e.g., Registered Apprenticeship Program (RAP), Green Certificate, Career and Technology Studies (CTS) and Career Internship.</li> </ul>
<p><b>Students will practise the skills and abilities needed to manage change.</b></p>	<p><b>Adapting to Change</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify goals, responsibilities and commitments</li> <li>• assess and reflect on the success of an action plan; e.g.,               <ul style="list-style-type: none"> <li>– create alternative choices to deal with unexpected change</li> <li>– identify stressors in personal environments that they can and cannot change</li> </ul> </li> <li>• identify the need for personal support and create an inventory of available personal and community sources of support.</li> </ul>
<p><b>Students will orient themselves toward an occupation that reflects their personal aptitudes and interests.</b></p>	<p><b>Career Development</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• assess work preferences and nonpreferences (e.g., indoor, outdoor, shift work) assess life/work options and outline career goals and paths</li> <li>• work in and seek out a variety of roles and responsibilities</li> <li>• measure and celebrate personal contributions to workplace goals; e.g., paid, unpaid or volunteer work</li> <li>• orient themselves to the workplace through community partnerships and assess personal performance in terms of workplace expectations.</li> </ul>

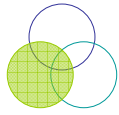
## PERSONAL MANAGEMENT

General Outcomes	Specific Outcomes
<p><b>Students will increase their self-esteem and confidence and enhance their ability to set personal goals and priorities.</b></p>	<p><b>Self-development</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• re-evaluate an action plan to develop strengths and talents</li><li>• use strengths and talents to achieve personal goals</li><li>• clarify acceptable and appropriate behaviours for specific activities and roles</li><li>• act ethically in personal, community and workplace contexts and accept the consequences of their actions.</li></ul>
<p><b>Students will understand risks and be accountable for their actions.</b></p>	<p><b>Risk Management</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• follow health and safety procedures; e.g., at home, at school, in the community and in the workplace</li><li>• identify potential hazards, take corrective action and develop and practise action plans to ensure safety</li><li>• practise personal emergency responses</li><li>• assess their comfort level with, and the consequences of, taking risks.</li></ul>

## WORKING WITH OTHERS

<p><b>Students will practise effective communication skills and strategies in an occupational context.</b></p>	<p><b>Interpersonal Communication</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• assess the effectiveness of communication strategies used to communicate thoughts and feelings; e.g.,<ul style="list-style-type: none"><li>– listen without interrupting</li><li>– contribute to be heard</li><li>– disagree courteously</li><li>– accept conflicting opinions</li><li>– use appropriate body language</li></ul></li><li>• assess verbal and nonverbal communication strategies</li><li>• apply social norms to build specific relationships</li><li>• demonstrate the ability to accept praise and/or criticism.</li></ul>
<p><b>Students will demonstrate the ability to understand and work within the culture of a group.</b></p>	<p><b>Building Community</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• interact with others in a courteous manner</li><li>• accommodate the beliefs of others in work and personal environments and show respect for differences in beliefs, abilities, etiquette and styles of interaction</li><li>• identify opportunities for participation in community growth.</li></ul>

General Outcomes	Specific Outcomes
<p><b>Students will plan and make decisions with others.</b></p>	<p><b>Teamwork</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• participate effectively as group members; e.g., <ul style="list-style-type: none"> <li>– generate ideas</li> <li>– assess resources</li> <li>– contribute abilities and interests</li> <li>– monitor progress</li> <li>– share responsibility for completion of a task</li> </ul> </li> <li>• assume various roles within a group; e.g., leadership</li> <li>• clarify the expected outcomes of teamwork.</li> </ul>



**OCCUPATIONAL COMPETENCIES:** Students will develop and demonstrate the following competencies to succeed in a specific occupation or career. They will achieve results through a variety of projects/activities as appropriate to enhance their knowledge and skills. Students will ensure the quality of their work through effective task management and will highlight their achievements in a career-based portfolio.

## ACHIEVING RESULTS

General Outcomes	Specific Outcomes
<p><b>Students will orient themselves toward an occupation within a greenhouse and nursery career environment.</b></p>	<p><b>Career Awareness</b></p> <p><b>Orientation</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify entry-level competencies</li> <li>• identify post-secondary opportunities</li> <li>• recognize entrepreneurial opportunities within the industry</li> <li>• introduce themselves to local business/industry operations</li> <li>• match their personal interests to their job search; e.g.,               <ul style="list-style-type: none"> <li>– identify sources of support for investigating and finding work</li> <li>– describe entry-level requirements</li> <li>– recognize potential career ladders.</li> </ul> </li> </ul> <p><b>Standards</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• develop workplace protocols, procedures and standards of conduct; e.g.,               <ul style="list-style-type: none"> <li>– demonstrate appropriate work habits</li> <li>– use safe and sanitary practices</li> <li>– demonstrate pride in themselves</li> <li>– demonstrate pride in their work performance</li> <li>– show respect for others</li> <li>– respect the property of others.</li> </ul> </li> </ul>
<p><b>Students will demonstrate safe workplace practices and procedures.</b></p>	<p><b>Workplace Health and Safety</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify safety device locations and procedures within the workplace environment</li> <li>• identify government regulatory bodies that support a safe workplace</li> <li>• demonstrate knowledge of, and the ability to access information about, Occupational Health and Safety (OHS) and the Workers' Compensation Board (WCB)</li> </ul>

General Outcomes	Specific Outcomes
<p><b>Students will develop an increased awareness of technology to develop a high-quality product or service.</b></p>	<ul style="list-style-type: none"> <li>• demonstrate knowledge of, and adherence to, safety rules that are specific to available tools, equipment and materials</li> <li>• demonstrate knowledge of health hazards associated with the use of chemicals and materials and retrieve information on Material Safety Data Sheets (MSDS) using appropriate print and Internet resources</li> <li>• select and wear personal protective equipment (PPE) appropriate to the specific task</li> <li>• demonstrate knowledge of environmental issues relating to the procedures for handling hazardous waste</li> <li>• demonstrate an understanding of the Workplace Hazardous Materials Information System (WHMIS) as it relates to the field of study and identify WHMIS symbols, classes and labelling requirements</li> <li>• identify hazards within the greenhouse environment; e.g., tools, pesticides, fertilizers, electrical, heating, equipment.</li> </ul> <p><b>Products and Service</b></p> <p><b>Technology Integration</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify new and emerging products and technological advances used in greenhouses and nurseries.</li> </ul> <p><b>Tools, Equipment and Materials</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify and safely use common hand and power tools and equipment used in greenhouses and nurseries</li> <li>• handle and dispose of, properly, environmentally hazardous materials used in greenhouses and nurseries; e.g., <ul style="list-style-type: none"> <li>– reread Material Safety Data Sheets (MSDS)</li> <li>– read publications on the safe handling of toxic substances within the greenhouse</li> <li>– read labels on chemical containers to check their uses and hazards.</li> </ul> </li> </ul> <p><b>Providing Service</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify client relationships or interactions within the field of greenhouses and nurseries</li> <li>• identify services needed, required or provided</li> <li>• collect necessary information to complete a purchase or fill out a work order</li> <li>• recognize the importance of customer or client service to all businesses/industries</li> <li>• demonstrate professional practices and work habits</li> <li>• strive to meet and exceed the client’s expectations.</li> </ul>

General Outcomes	Specific Outcomes
<p><b>Students will identify a variety of plants.</b></p>	<p><b>Plant Identification</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• name and discuss characteristics of plants from each category; e.g., <ul style="list-style-type: none"> <li>– annuals</li> <li>– perennials</li> <li>– seasonal flowers</li> <li>– house plants</li> </ul> </li> <li>• recognize annuals that are produced from seeds or cuttings.</li> </ul>
<p><b>Students will develop an understanding of botany.</b></p>	<p><b>Plant Parts and Functions</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify the parts of a plant and provide a mounted plant specimen, showing: <ul style="list-style-type: none"> <li>– roots</li> <li>– stems</li> <li>– leaves</li> <li>– flowers</li> <li>– seeds</li> <li>– fruits</li> </ul> </li> <li>• identify the different types of each plant part; i.e., <ul style="list-style-type: none"> <li>– root: fibrous, rhizome, tap</li> <li>– stems: bulbs, corms, tubers</li> <li>– leaves: simple, compound, needle</li> <li>– flowers: perfect, imperfect</li> <li>– seeds: varieties/diversity</li> <li>– fruits: varieties/diversity</li> </ul> </li> <li>• explain the function of each plant part</li> <li>• identify plant processes; i.e., <ul style="list-style-type: none"> <li>– photosynthesis</li> <li>– respiration</li> <li>– transpiration</li> <li>– tropism.</li> </ul> </li> </ul>
<p><b>Students will develop an understanding of the importance of soils and different media.</b></p>	<p><b>Growing Media</b></p> <p><b>Types of Natural Soils</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify the characteristics of common soil types; e.g., <ul style="list-style-type: none"> <li>– drainage</li> <li>– water-holding capacity</li> <li>– pH</li> <li>– salinity (EC)</li> </ul> </li> <li>• analyze soil and identify the amendments required for a specific crop.</li> </ul>

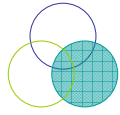
General Outcomes	Specific Outcomes
<p><b>Students will develop an understanding of the importance of fertilizer in the growth process.</b></p>	<p><b>Soilless Media</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify the ingredients required for each type of professional mix; e.g., <ul style="list-style-type: none"> <li>– seeding</li> <li>– propagation</li> <li>– basket</li> <li>– potting</li> <li>– general</li> <li>– compost</li> </ul> </li> <li>• test for soil pH; e.g., acidity, alkalinity</li> <li>• observe the changes in pH of a soil sample using various substances; e.g., <ul style="list-style-type: none"> <li>– lemon juice</li> <li>– sulphur</li> <li>– lime</li> </ul> </li> <li>• test the water-holding capacity of various soilless mixes</li> <li>• determine the use of each type of modifier.</li> </ul> <p><b>Fertilizer</b></p> <p><b>Major Elements</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify the function of the major elements of fertilizer; e.g., <ul style="list-style-type: none"> <li>– nitrogen (N)</li> <li>– phosphorus (P)</li> <li>– potassium (K)</li> </ul> </li> <li>• identify the symptoms of various nutrient deficiencies</li> <li>• identify the differences between fertilizer types; e.g., <ul style="list-style-type: none"> <li>– soluble</li> <li>– granular</li> <li>– slow release.</li> </ul> </li> </ul>
<p><b>Students will recognize the procedures for plant growth and the mass production of plant material.</b></p>	<p><b>Plant Growth/Plant Production</b></p> <p><b>Growth Needs</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• determine the requirements for specific crops; e.g., <ul style="list-style-type: none"> <li>– air</li> <li>– light</li> <li>– water</li> <li>– temperature</li> <li>– nutrition</li> </ul> </li> <li>• demonstrate the techniques required to pot and transplant plants</li> <li>• modify the soils provided so each mix will suit a specific plant type</li> </ul>



General Outcomes	Specific Outcomes
<p><b>Students will develop an understanding of floral design and arrangements.</b></p>	<ul style="list-style-type: none"> <li>• identify plant management procedures to ensure plant growth; e.g.,               <ul style="list-style-type: none"> <li>– watering</li> <li>– fertilizer</li> <li>– pruning</li> <li>– environmental factors.</li> </ul> </li> </ul>
	<p><b>Plant Problems</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify symptoms of plant health problems, including:               <ul style="list-style-type: none"> <li>– diseases</li> <li>– insect pests</li> <li>– cultural</li> <li>– environmental</li> </ul> </li> <li>• identify procedures for managing plant problems.</li> </ul>
	<p><b>Propagation</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• demonstrate the propagation of plants, using asexual techniques, e.g., cutting, division, layering, and sexual techniques; e.g., seed</li> <li>• recognize the propagation techniques for commercial plant production.</li> </ul>
	<p><b>Floral Design</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify tools and materials for making a basic floral arrangement</li> <li>• demonstrate techniques for making arrangements; e.g.,               <ul style="list-style-type: none"> <li>– bud vase</li> <li>– rose bowl</li> </ul> </li> <li>• identify various common plant materials used in fresh floral arrangements.</li> </ul>

## ENSURING QUALITY

General Outcomes	Specific Outcomes
<p><b>Students will continue to develop an understanding of the value of effective task management processes by applying knowledge and skills to simulated and actual work situations.</b></p>	<p><b>Task Management</b></p> <p><b>Outcomes</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• read or listen to instructions</li><li>• ask questions to clarify expected outcomes, procedures and timelines.</li></ul> <p><b>Decision Making</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• identify the parameters of the task</li><li>• generate and review alternative ideas and their consequences</li><li>• make a decision or select an idea.</li></ul> <p><b>Planning</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• identify the steps involved in managing a project</li><li>• prepare a sample project plan, including budget and timeline</li><li>• identify available tools, equipment and materials.</li></ul> <p><b>Performance Standards</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• identify expected standards for a product or service</li><li>• ensure a product or service meets the expected standards and timelines.</li></ul> <p><b>Evaluation</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• identify opportunities for improving quality</li><li>• establish expectations and measures for improvements</li><li>• create evidence to support an understanding of task management and skill development for inclusion in a personal portfolio.</li></ul>



**ACADEMIC COMPETENCIES:** These are the minimum academic competencies that provide a foundation for further learning. The following outcomes are provided as a reminder to address these academic competencies within the occupational context and to reinforce cross-curricular connections.

## COMMUNICATION

General Outcomes	Specific Outcomes
<p><b>Students will demonstrate effective listening, speaking, reading and writing skills.</b></p>	<p><b>Listening, Speaking, Reading and Writing</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• read, view and interpret occupation-related materials; e.g.,<ul style="list-style-type: none"><li>– use related occupational terms</li><li>– identify occupation-related literature</li><li>– interpret and follow written instructions</li></ul></li><li>• select and create a text format to suit a purpose and audience, e.g., forms, letters, reports, memos, résumé, and:<ul style="list-style-type: none"><li>– describe uses of writing skills in related occupations</li><li>– write a letter of inquiry</li><li>– write a letter of thanks</li><li>– complete job applications</li></ul></li><li>• listen and present information in a clear, concise manner; e.g.,<ul style="list-style-type: none"><li>– listen attentively to organize and classify information and ideas</li><li>– organize main ideas and key messages with clarity.</li></ul></li></ul>

## THINKING

<p><b>Students will apply creative thinking skills to solve problems.</b></p>	<p><b>Problem Solving, Decision Making and Creative Thinking</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• apply a problem-solving model to identify the problem/issue</li><li>• identify appropriate actions and develop several alternatives for each promising idea</li><li>• evaluate the results, in terms of expected outcomes related to the initial problem, and evaluate personal satisfaction with the outcome of the idea; e.g., product/process.</li></ul>
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## NUMERACY

General Outcomes	Specific Outcomes
<p>Students will apply mathematical concepts to solve occupational problems.</p>	<p><b>Basic Operations, Patterns and Relationships, Shape and Space, and Statistics and Probability</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• apply arithmetic operations, e.g., addition, subtraction, multiplication or division, to whole numbers and decimals and use number operations when creating and solving money problems</li><li>• use calculators or computers, to perform calculations involving large and small numbers, when solving problems</li><li>• apply concepts of rate, ratio, percentage and proportion to solve problems in a meaningful context</li><li>• demonstrate a number sense for whole numbers 0 to 100 000 and explore proper fractions and decimals</li><li>• estimate, measure and compare, using decimal numbers and standard units of measure, to solve problems in everyday contexts; e.g., mass, length, volume, time, perimeter, surface area</li><li>• use metric and imperial units of measure.</li></ul>

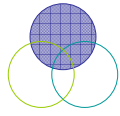
## INFORMATION TECHNOLOGY

<p>Students will enhance their performance by using information technology to help complete tasks.</p>	<p><b>Computer Operations and Computer Applications</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• demonstrate appropriate language and etiquette when using information technology</li><li>• demonstrate appropriate telephone operations; e.g., answer telephone calls appropriately, locate numbers and make telephone calls</li><li>• demonstrate basic computer operations to complete a task; e.g.,<ul style="list-style-type: none"><li>– use basic keyboarding skills</li><li>– store, organize and retrieve information correctly</li><li>– locate and select information and ideas using appropriate technology and information systems; e.g., Internet</li><li>– access, send and retrieve e-mail and attachments</li></ul></li><li>• demonstrate procedures for connecting and using audio, video and digital equipment</li><li>• demonstrate procedures for sending and receiving faxes and setting up a fax machine</li><li>• demonstrate procedures for copying and printing documents.</li></ul>
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## GREENHOUSE AND NURSERY 30-4 GENERAL OUTCOMES

<b>Employability Competencies</b>	<b>Students will develop these competencies throughout the learning process and demonstrate them in daily life and the workplace.</b>
Managing Transitions	<ul style="list-style-type: none"> <li>• Students will consistently demonstrate personal discovery and continuous learning.</li> <li>• Students will manage change effectively to support their goals.</li> <li>• Students will prepare themselves for entry-level employment in an occupation that reflects their personal aptitudes and interests.</li> </ul>
Personal Management	<ul style="list-style-type: none"> <li>• Students will exhibit self-esteem and confidence through the achievement of personal goals.</li> <li>• Students will manage risks to achieve both personal and workplace goals.</li> </ul>
Working with Others	<ul style="list-style-type: none"> <li>• Students will model effective communication skills and strategies in the home, school, community and workplace.</li> <li>• Students will promote equity in work and community endeavours.</li> <li>• Students will demonstrate the ability to complete tasks in a team environment.</li> </ul>
<b>Occupational Competencies</b>	<b>Students will develop and demonstrate the following competencies to succeed in a specific occupation or career.</b>
Achieving Results	<ul style="list-style-type: none"> <li>• Students will prepare for entry-level employment within a greenhouse and nursery career environment.</li> <li>• Students will demonstrate entry-level standards of safe workplace practices and procedures.</li> <li>• Students will use technology to develop a high-quality product or service.</li> <li>• Students will demonstrate the effective use of soils and modifiers to grow specific plants.</li> <li>• Students will demonstrate various propagation procedures to propagate different plants grown in the nursery and greenhouse.</li> <li>• Students will demonstrate procedures for plant growth and the mass production of plant materials.</li> <li>• Students will demonstrate an understanding of floral design.</li> </ul>
Ensuring Quality	<ul style="list-style-type: none"> <li>• Students will demonstrate an understanding of the value of effective task management processes by applying knowledge and skills to simulated and actual work situations.</li> </ul>
<b>Academic Competencies</b>	<b>Students will continue to develop these minimum academic competencies that provide a foundation for further learning.</b>
Communication	<ul style="list-style-type: none"> <li>• Students will demonstrate effective listening, speaking, reading and writing skills to prepare for employment.</li> </ul>
Thinking	<ul style="list-style-type: none"> <li>• Students will research information, use creative thinking skills and use effective problem-solving strategies to solve problems.</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>• Students will demonstrate mathematical operations to effectively solve problems in a meaningful context.</li> </ul>
Information Technology	<ul style="list-style-type: none"> <li>• Students will demonstrate the effective use of information technology to perform daily workplace operations.</li> </ul>

## GREENHOUSE AND NURSERY 30-4



**EMPLOYABILITY COMPETENCIES:** These competencies are developed throughout the learning process and are demonstrated in daily life and the workplace. Students will develop and demonstrate these competencies through individual effort and interpersonal interaction while completing a variety of projects/activities.

### MANAGING TRANSITIONS

General Outcomes	Specific Outcomes
<p><b>Students will consistently demonstrate personal discovery and continuous learning.</b></p>	<p><b>Lifelong Learning</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify learning opportunities related to learning goals, commitments and resources; e.g.,                             <ul style="list-style-type: none"> <li>– identify opportunities for further education/training</li> <li>– locate needed financial support systems</li> <li>– locate needed personal support systems</li> </ul> </li> <li>• practise what has been learned to build competence and confidence and evaluate the application of competencies to learning goals</li> <li>• create a plan that demonstrates continuous learning; e.g.,                             <ul style="list-style-type: none"> <li>– analyze requirements for graduation and for further education/training</li> <li>– modify a learning plan to reflect requirements and opportunities.</li> </ul> </li> </ul>
<p><b>Students will manage change effectively to support their goals.</b></p>	<p><b>Adapting to Change</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• prioritize and assign resources to meet commitments and goals</li> <li>• prioritize commitments and goals to achieve a balanced lifestyle</li> <li>• redefine an action plan as situations change; e.g.,                             <ul style="list-style-type: none"> <li>– use adaptive strategies</li> <li>– redefine personal goals</li> <li>– select personal coping mechanisms</li> </ul> </li> <li>• access available and appropriate sources of support</li> <li>• identify opportunities for improvement and innovation; e.g., entrepreneurship.</li> </ul>

General Outcomes	Specific Outcomes
<p><b>Students will prepare themselves for entry-level employment in an occupation that reflects their personal aptitudes and interests.</b></p>	<p><b>Career Development</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• analyze elements of job satisfaction; e.g., recognition, environment, pay, benefits, prestige</li> <li>• build personal career paths and networks</li> <li>• analyze how work contributes to societal and economic needs and a sense of responsibility</li> <li>• prepare for employment through community partnership activities and organize and complete specific job tasks effectively and efficiently.</li> </ul>

## PERSONAL MANAGEMENT

**Students will exhibit self-esteem and confidence through the achievement of personal goals.**

### **Self-development**

*Students will:*

- continue to create a long-term self-development plan in which they consider accomplishments and redefine self-development goals
- demonstrate entry-level self-presentation appropriate to the activity and role
- maintain a high standard of personal ethics when interacting with others.

**Students will manage risks to achieve both personal and workplace goals.**

### **Risk Management**

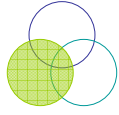
*Students will:*

- maintain health and safety procedures; e.g., at home, at school, in the community and in the workplace
- monitor success in reducing the impact of hazards on themselves and others
- demonstrate concern for the safety of others by exhibiting appropriate behaviour in the workplace
- work with others to respond to emergencies
- take planned risks to contribute to personal growth.

## WORKING WITH OTHERS

General Outcomes	Specific Outcomes
<p><b>Students will model effective communication skills and strategies in the home, school, community and workplace.</b></p>	<p><b>Interpersonal Communication</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• communicate thoughts and feelings appropriately; e.g.,<ul style="list-style-type: none"><li>– listen without interrupting</li><li>– contribute to be heard</li><li>– disagree courteously</li><li>– accept conflicting opinions</li><li>– use appropriate body language</li></ul></li><li>• maintain a balance between speaking, listening and responding</li><li>• work together to achieve goals</li><li>• demonstrate the ability to deal constructively with conflict.</li></ul>
<p><b>Students will promote equity in work and community endeavours.</b></p>	<p><b>Building Community</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• demonstrate and model courteous behaviour in daily interactions</li><li>• demonstrate respect for others and a shared understanding of diverse beliefs, etiquette and styles of interaction</li><li>• assess their personal contribution to community growth.</li></ul>
<p><b>Students will demonstrate the ability to complete tasks in a team environment.</b></p>	<p><b>Teamwork</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• assess the effectiveness of group and personal contributions; e.g.,<ul style="list-style-type: none"><li>– generate ideas</li><li>– assess resources</li><li>– contribute abilities and interests</li><li>– monitor progress</li><li>– share responsibility for completion of a task</li></ul></li><li>• expand their abilities to contribute to team goals.</li></ul>





**OCCUPATIONAL COMPETENCIES:** Students will develop and demonstrate the following competencies to succeed in a specific occupation or career. They will achieve results through a variety of projects/activities as appropriate to enhance their knowledge and skills. Students will ensure the quality of their work through effective task management and will highlight their achievements in a career-based portfolio.

## ACHIEVING RESULTS

General Outcomes	Specific Outcomes
<p><b>Students will prepare for entry-level employment within a greenhouse and nursery career environment.</b></p>	<p><b>Career Awareness</b></p> <p><b>Preparation</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• assess entry-level competencies</li> <li>• recognize opportunities for further education/training</li> <li>• select post-secondary opportunities</li> <li>• identify local entrepreneurs</li> <li>• establish contacts with local businesses/industries</li> <li>• explore career opportunities in garden centres and nurseries; e.g.,               <ul style="list-style-type: none"> <li>– visit local garden centres or nurseries</li> <li>– interview employees</li> <li>– discuss employment with the manager</li> </ul> </li> <li>• present marketable skills and strengths; e.g.,               <ul style="list-style-type: none"> <li>– write a letter of application</li> <li>– prepare a résumé</li> <li>– complete application forms</li> <li>– identify contacts and references</li> <li>– collect evidence of competencies in a portfolio</li> </ul> </li> <li>• demonstrate an informed decision-making process; e.g.,               <ul style="list-style-type: none"> <li>– collect evidence supporting their career choice</li> <li>– integrate evidence to support an informed selection of a career pathway</li> <li>– present a collection of artifacts and reflections to support an informed selection of a career pathway.</li> </ul> </li> </ul> <p><b>Standards</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• demonstrate workplace protocols, procedures and standards of conduct; e.g.,               <ul style="list-style-type: none"> <li>– demonstrate appropriate work habits</li> <li>– demonstrate effective human relations techniques in the workplace</li> <li>– practise safety in the workplace</li> </ul> </li> </ul>

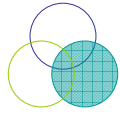
General Outcomes	Specific Outcomes
<p><b>Students will demonstrate entry-level standards of safe workplace practices and procedures.</b></p>	<ul style="list-style-type: none"> <li>– demonstrate acceptable verbal and nonverbal communication skills</li> <li>– practise personal and public hygiene procedures</li> <li>– demonstrate entry-level competency in tools and equipment usage</li> <li>– use supplies correctly</li> <li>– follow good storage practices</li> <li>– demonstrate pride in their work performance</li> <li>– demonstrate a willingness to work</li> <li>– demonstrate respect for others</li> <li>– follow accepted principles and procedures</li> <li>– recognize opportunities for further education/training.</li> </ul> <p><b>Workplace Health and Safety</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify and explain the use of safety devices within the workplace</li> <li>• demonstrate knowledge of, and the ability to access information about, Occupational Health and Safety (OHS) and the Workers’ Compensation Board (WCB)</li> <li>• demonstrate a prework and postwork hazard assessment</li> <li>• demonstrate knowledge of, and adherence to, safety rules that are specific to available tools, equipment and materials</li> <li>• demonstrate knowledge of health hazards associated with the use of chemicals and materials and retrieve information on Material Safety Data Sheets (MSDS) using appropriate print and Internet resources</li> <li>• model safety consciousness by selecting and wearing personal protective equipment (PPE) appropriate to the specific task</li> <li>• demonstrate knowledge of environmental issues relating to the procedures for handling hazardous waste</li> <li>• demonstrate an understanding of the Workplace Hazardous Materials Information System (WHMIS) as it relates to the field of study and identify WHMIS symbols, classes and labelling requirements</li> <li>• identify safety hazards in the garden centre and nursery; e.g., <ul style="list-style-type: none"> <li>– identify and list hazards that may affect the public.</li> </ul> </li> </ul>
<p><b>Students will use technology to develop a high-quality product or service.</b></p>	<p><b>Products and Services</b></p> <p><b>Technology Integration</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• use new and emerging products and technological advances needed in greenhouses and nurseries; e.g., <ul style="list-style-type: none"> <li>– examine the effects of current technological advances in the greenhouse and nursery industry and explain the impact of current technology on the job descriptions of future greenhouse and nursery trade workers.</li> </ul> </li> </ul>

General Outcomes	Specific Outcomes
<p><b>Students will demonstrate the effective use of soils and modifiers to grow specific plants.</b></p>	<p><b>Providing Service</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify client relationships or interactions within the field of greenhouses and nurseries</li> <li>• identify services needed, required or provided</li> <li>• collect necessary information to complete a purchase or fill out a work order</li> <li>• recognize the importance of customer or client service to all businesses/industries</li> <li>• demonstrate professional practices and work habits</li> <li>• strive to meet and exceed the client’s expectations.</li> </ul> <p><b>Soils and Modifiers</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• determine the ideal soilless mix for: <ul style="list-style-type: none"> <li>– annuals</li> <li>– perennials</li> <li>– flowering plants</li> <li>– baskets</li> <li>– vegetables</li> <li>– trees and shrubs.</li> </ul> </li> </ul>
<p><b>Students will demonstrate various propagation procedures to propagate different plants grown in the nursery and greenhouse.</b></p>	<p><b>Plant Propagation</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• use softwood cuttings; e.g., propagate quantities of annuals, perennials, woody plants and foliage plants</li> <li>• use hardwood cuttings; e.g., propagate dormant woody stems</li> <li>• divide and transplant perennials and divide bulbs and rhizomes</li> <li>• graft softwood plants and graft and bud hardwood plants.</li> </ul>
<p><b>Students will demonstrate procedures for plant growth and the mass production of plant materials.</b></p>	<p><b>Plant Growth/Plant Production</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• demonstrate procedures for growing plants to maturity; e.g., <ul style="list-style-type: none"> <li>– annuals</li> <li>– perennials</li> <li>– seasonal flowering plants</li> <li>– trees and shrubs</li> </ul> </li> <li>• outline the stages of production for each category</li> <li>• identify cost factors and the sale price in each category</li> <li>• determine the size and type of containers to be used</li> <li>• transplant seedlings or plugs</li> </ul>

General Outcomes	Specific Outcomes
<p><b>Students will demonstrate an understanding of floral design.</b></p>	<ul style="list-style-type: none"> <li>• water and fertilize the plants to obtain maximum growth</li> <li>• prune or cut back the plant as required</li> <li>• present plants for sale when they are mature</li> <li>• schedule plant crops for seasonal sale; e.g., poinsettias, Easter lilies</li> <li>• record and schedule maintenance procedures</li> <li>• estimate quantities, areas and volumes required for crop production; e.g.,             <ul style="list-style-type: none"> <li>– fertilizer</li> <li>– soil mixtures.</li> </ul> </li> </ul> <p><b>Floral Design</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• demonstrate the correct techniques for the incorporation of design elements; e.g.,             <ul style="list-style-type: none"> <li>– proportion</li> <li>– colours</li> <li>– scale</li> <li>– balance</li> </ul> </li> <li>• design and make arrangements to sell</li> <li>• demonstrate procedures for making corsages and boutonnieres</li> <li>• demonstrate procedures for the care of perishable floral materials.</li> </ul>

## ENSURING QUALITY

General Outcomes	Specific Outcomes
<p><b>Students will demonstrate an understanding of the value of effective task management processes by applying knowledge and skills to simulated and actual work situations.</b></p>	<p><b>Task Management</b></p> <p><b>Outcomes</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• read and/or listen to instructions</li><li>• ask questions to clarify expected outcomes, procedures and timelines.</li></ul> <p><b>Decision Making</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• identify the parameters of the task</li><li>• generate and review alternative ideas and their consequences</li><li>• make a decision or select an idea.</li></ul> <p><b>Planning</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• identify the steps involved in managing a project</li><li>• prepare a sample project plan, including budget and timeline</li><li>• identify available tools, equipment and materials.</li></ul> <p><b>Performance Standards</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• identify expected standards for a product or service</li><li>• ensure a product or service meets expected standards and timelines.</li></ul> <p><b>Evaluation</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• identify opportunities for improving quality</li><li>• establish expectations and measures for improvements</li><li>• create evidence to support an understanding of task management and skill development for inclusion in a personal portfolio.</li></ul>



**ACADEMIC COMPETENCIES:** These are the minimum academic competencies that provide a foundation for further learning. The following outcomes are provided as a reminder to address these academic competencies within the occupational context and to reinforce cross-curricular connections.

## COMMUNICATION

General Outcomes	Specific Outcomes
<p><b>Students will demonstrate effective listening, speaking, reading and writing skills to prepare for employment.</b></p>	<p><b>Listening, Speaking, Reading and Writing</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• read, view and interpret occupation-related materials for a specific purpose; e.g.,<ul style="list-style-type: none"><li>– read related health and safety documents</li><li>– read terms of employment documents</li><li>– follow written instructions specific to an occupational area</li></ul></li><li>• create text for a specific purpose that clearly communicates information; e.g.,<ul style="list-style-type: none"><li>– write a résumé</li><li>– write a job description</li><li>– submit job application forms</li></ul></li><li>• communicate thoughts and ideas and listen to the thoughts and ideas of others to effectively complete a task; e.g.,<ul style="list-style-type: none"><li>– follow oral instruction</li><li>– give effective oral instructions when necessary.</li></ul></li></ul>

## THINKING

<p><b>Students will research information, use creative thinking skills and use effective problem-solving strategies to solve problems.</b></p>	<p><b>Problem Solving, Decision Making, Finding Information and Creative Thinking</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• demonstrate an effective problem-solving model; e.g.,<ul style="list-style-type: none"><li>– identify the need for a solution to a problem/issue</li><li>– identify why information is needed; e.g., make decisions, inform, persuade</li></ul></li><li>• identify appropriate actions and select and apply information that meets their purposes and needs</li><li>• evaluate the results in terms of expected outcomes and assess the impact of information on their purpose and audience.</li></ul>
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## NUMERACY

General Outcomes	Specific Outcomes
<p>Students will demonstrate mathematical operations to effectively solve problems in a meaningful context.</p>	<p><b>Basic Operations, Patterns and Relationships, Shape and Space, and Statistics and Probability</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• apply arithmetic operations, e.g., addition, subtraction, multiplication or division, to whole numbers and decimals and use number operations when creating and solving money problems</li><li>• use calculators or computers, to perform calculations involving large and small numbers, when solving problems</li><li>• apply concepts of rate, ratio, percentage and proportion</li><li>• demonstrate a number sense for whole numbers 0 to 100 000 and explore proper fractions and decimals</li><li>• estimate, measure and compare, using decimal numbers and standard units of measure, to solve problems in everyday contexts; e.g., mass, length, volume, time, perimeter, surface area</li><li>• use metric and imperial units of measure.</li></ul>

## INFORMATION TECHNOLOGY

Students will demonstrate the effective use of information technology to perform daily workplace operations.

### Computer Operations and Computer Applications

*Students will:*

- model and assume personal responsibility for the ethical use of information technologies
- demonstrate appropriate telephone operations within the workplace; e.g., answer telephone calls appropriately, locate numbers and make telephone calls
- use computer operations to assist in the completion of daily workplace operations; e.g.,
  - use basic keyboarding skills
  - store, organize and retrieve information correctly
  - locate and select information and ideas using appropriate technology and information systems; e.g., Internet
  - access, send and retrieve e-mail and attachments
- demonstrate procedures for connecting and using audio, video and digital equipment
- demonstrate procedures for sending and receiving faxes and setting up a fax machine
- demonstrate procedures for copying and printing documents.

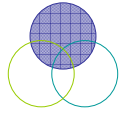




## LANDSCAPING 20-4 GENERAL OUTCOMES

<b>Employability Competencies</b>	<b>Students will develop these competencies throughout the learning process and demonstrate them in daily life and the workplace.</b>
Managing Transitions	<ul style="list-style-type: none"> <li>• Students will apply their abilities and interests toward achieving learning goals.</li> <li>• Students will practise the skills and abilities needed to manage change.</li> <li>• Students will orient themselves toward an occupation that reflects their personal aptitudes and interests.</li> </ul>
Personal Management	<ul style="list-style-type: none"> <li>• Students will increase their self-esteem and confidence and enhance their ability to set personal goals and priorities.</li> <li>• Students will understand risks and be accountable for their actions.</li> </ul>
Working with Others	<ul style="list-style-type: none"> <li>• Students will practise effective communication skills and strategies in an occupational context.</li> <li>• Students will demonstrate the ability to understand and work within the culture of a group.</li> <li>• Students will plan and make decisions with others.</li> </ul>
<b>Occupational Competencies</b>	<b>Students will develop and demonstrate the following competencies to succeed in a specific occupation or career.</b>
Achieving Results	<ul style="list-style-type: none"> <li>• Students will orient themselves toward an occupation within a landscaping career environment.</li> <li>• Students will demonstrate safe workplace practices and procedures.</li> <li>• Students will develop an increased awareness of technology to develop a high-quality product or service.</li> <li>• Students will identify and use field soils in a landscaping environment.</li> <li>• Students will identify plant material used in landscaping.</li> <li>• Students will develop an understanding of the principles of landscape design.</li> <li>• Students will demonstrate effective construction of an exterior landscape.</li> <li>• Students will identify various landscaping products and their roles in landscape development.</li> <li>• Students will identify processes and techniques for creating an interior landscape.</li> </ul>
Ensuring Quality	<ul style="list-style-type: none"> <li>• Students will continue to develop an understanding of the value of effective task management processes by applying knowledge and skills to simulated and actual work situations.</li> </ul>
<b>Academic Competencies</b>	<b>Students will continue to develop these minimum academic competencies that provide a foundation for further learning.</b>
Communication	<ul style="list-style-type: none"> <li>• Students will demonstrate effective listening, speaking, reading and writing skills.</li> </ul>
Thinking	<ul style="list-style-type: none"> <li>• Students will apply creative thinking skills to solve problems.</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>• Students will apply mathematical concepts to solve occupational problems.</li> </ul>
Information Technology	<ul style="list-style-type: none"> <li>• Students will enhance their performance by using information technology to help complete tasks.</li> </ul>

## LANDSCAPING 20-4



**EMPLOYABILITY COMPETENCIES:** These competencies are developed throughout the learning process and are demonstrated in daily life and the workplace. Students will develop and demonstrate these competencies through individual effort and interpersonal interaction while completing a variety of projects/activities.

## MANAGING TRANSITIONS

General Outcomes	Specific Outcomes
<p><b>Students will apply their abilities and interests toward achieving learning goals.</b></p>	<p><b>Lifelong Learning</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• relate learning preferences and strengths to formal and informal learning opportunities and identify post-secondary opportunities within the related field</li> <li>• assess learning goals and current competencies, identify competencies needing development and identify and prioritize learning goals</li> <li>• create a pathway of senior high school courses to reflect learning goals</li> <li>• identify educational possibilities; e.g., Registered Apprenticeship Program (RAP), Green Certificate, Career and Technology Studies (CTS) and Career Internship.</li> </ul>
<p><b>Students will practise the skills and abilities needed to manage change.</b></p>	<p><b>Adapting to Change</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify goals, responsibilities and commitments</li> <li>• assess and reflect on the success of an action plan; e.g.,               <ul style="list-style-type: none"> <li>– create alternative choices to deal with unexpected change</li> <li>– identify stressors in personal environments that they can and cannot change</li> </ul> </li> <li>• identify the need for personal support and create an inventory of available personal and community sources of support.</li> </ul>
<p><b>Students will orient themselves toward an occupation that reflects their personal aptitudes and interests.</b></p>	<p><b>Career Development</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• assess work preferences and nonpreferences (e.g., indoor, outdoor, shift work), assess life/work options and outline career goals and paths</li> <li>• work in and seek out a variety of roles and responsibilities</li> <li>• measure and celebrate personal contributions to workplace goals; e.g., paid, unpaid or volunteer work</li> <li>• orient themselves to the workplace through community partnerships and assess personal performance in terms of workplace expectations.</li> </ul>

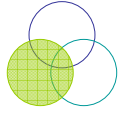
## PERSONAL MANAGEMENT

General Outcomes	Specific Outcomes
<b>Students will increase their self-esteem and confidence and enhance their ability to set personal goals and priorities.</b>	<b>Self-development</b> <i>Students will:</i> <ul style="list-style-type: none"><li>• re-evaluate an action plan to develop strengths and talents</li><li>• use strengths and talents to achieve personal goals</li><li>• clarify acceptable and appropriate behaviours for specific activities and roles</li><li>• act ethically in personal, community and workplace contexts and accept the consequences of their actions.</li></ul>
<b>Students will understand risks and be accountable for their actions.</b>	<b>Risk Management</b> <i>Students will:</i> <ul style="list-style-type: none"><li>• follow health and safety procedures; e.g., at home, at school, in the community and in the workplace</li><li>• identify potential hazards, take corrective action and develop and practise action plans to ensure safety</li><li>• practise personal emergency responses</li><li>• assess their comfort level with, and the consequences of, taking risks.</li></ul>

## WORKING WITH OTHERS

<b>Students will practise effective communication skills and strategies in an occupational context.</b>	<b>Interpersonal Communication</b> <i>Students will:</i> <ul style="list-style-type: none"><li>• assess the effectiveness of communication strategies used to communicate thoughts and feelings; e.g.,<ul style="list-style-type: none"><li>– listen without interrupting</li><li>– contribute to be heard</li><li>– disagree courteously</li><li>– accept conflicting opinions</li><li>– use appropriate body language</li></ul></li><li>• assess verbal and nonverbal communication strategies</li><li>• apply social norms to build specific relationships</li><li>• demonstrate the ability to accept praise and/or criticism.</li></ul>
<b>Students will demonstrate the ability to understand and work within the culture of a group.</b>	<b>Building Community</b> <i>Students will:</i> <ul style="list-style-type: none"><li>• interact with others in a courteous manner</li><li>• accommodate the beliefs of others in work and personal environments and show respect for differences in beliefs, abilities, etiquette and styles of interaction</li><li>• identify opportunities for participation in community growth.</li></ul>

General Outcomes	Specific Outcomes
<p><b>Students will plan and make decisions with others.</b></p>	<p><b>Teamwork</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• participate effectively as group members; e.g., <ul style="list-style-type: none"> <li>– generate ideas</li> <li>– assess resources</li> <li>– contribute abilities and interests</li> <li>– monitor progress</li> <li>– share responsibility for completion of a task</li> </ul> </li> <li>• assume various roles within a group; e.g., leadership</li> <li>• clarify the expected outcomes of teamwork.</li> </ul>



**OCCUPATIONAL COMPETENCIES:** Students will develop and demonstrate the following competencies to succeed in a specific occupation or career. They will achieve results through a variety of projects/activities as appropriate to enhance their knowledge and skills. Students will ensure the quality of their work through effective task management and will highlight their achievements in a career-based portfolio.

## ACHIEVING RESULTS

General Outcomes	Specific Outcomes
<p><b>Students will orient themselves toward an occupation within a landscaping career environment.</b></p>	<p><b>Career Awareness</b></p> <p><b>Orientation</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify entry-level competencies</li> <li>• identify post-secondary opportunities</li> <li>• recognize entrepreneurial opportunities within the industry</li> <li>• introduce themselves to local business/industry operations</li> <li>• match their personal interests to their job search; e.g.,               <ul style="list-style-type: none"> <li>– identify sources of support for investigating and finding work</li> <li>– describe entry-level requirements</li> <li>– recognize potential career ladders.</li> </ul> </li> </ul> <p><b>Standards</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• develop workplace protocols, procedures and standards of conduct; e.g.,               <ul style="list-style-type: none"> <li>– demonstrate appropriate work habits</li> <li>– use safe and sanitary practices</li> <li>– demonstrate pride in themselves</li> <li>– demonstrate pride in their work performance</li> <li>– show respect for others</li> <li>– respect the property of others.</li> </ul> </li> </ul>
<p><b>Students will demonstrate basic safe workplace practices and procedures.</b></p>	<p><b>Workplace Health and Safety</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify safety device locations and procedures within the workplace environment</li> <li>• identify government regulatory bodies that support a safe workplace</li> <li>• demonstrate knowledge of, and the ability to access information about, Occupational Health and Safety (OHS) and the Workers' Compensation Board (WCB)</li> <li>• demonstrate knowledge of, and adherence to, safety rules that are specific to available tools, equipment and materials</li> </ul>

General Outcomes	Specific Outcomes
<p><b>Students will develop an increased awareness of technology to develop a high-quality product or service.</b></p>	<ul style="list-style-type: none"> <li>• demonstrate knowledge of health hazards associated with the use of chemicals and materials and retrieve information on Material Safety Data Sheets (MSDS) using appropriate print and Internet resources</li> <li>• select and wear personal protective equipment (PPE) appropriate to the specific task</li> <li>• demonstrate knowledge of environmental issues relating to the procedures for handling hazardous waste</li> <li>• demonstrate an understanding of the Workplace Hazardous Materials Information System (WHMIS) as it relates to the field of study and identify WHMIS symbols, classes and labelling requirements</li> <li>• identify hazards related to landscaping work; e.g., <ul style="list-style-type: none"> <li>– use of power equipment and tools</li> <li>– lifting</li> <li>– repetitive jobs</li> <li>– pest control products.</li> </ul> </li> </ul> <p><b>Products and Service</b></p> <p><b>Tools and Equipment</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• use, safely, hand and power tools and equipment commonly used in landscaping services</li> <li>• handle and dispose of, properly, environmentally hazardous materials used in landscaping.</li> </ul> <p><b>Technology Integration</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify new and emerging products and technological advances used in landscaping.</li> </ul> <p><b>Providing Service</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify client relationships or interactions within the field of landscaping</li> <li>• identify services needed, required or provided</li> <li>• collect necessary information to complete a purchase or fill out a work order</li> <li>• recognize the importance of customer or client service to all businesses/industries</li> <li>• demonstrate professional practices and work habits</li> <li>• strive to meet and exceed the client’s expectations</li> <li>• estimate quantities, areas and volumes; e.g., of sod and soil</li> <li>• identify the costs of landscaping products and services</li> <li>• estimate all costs involved in a landscaping project; e.g., <ul style="list-style-type: none"> <li>– plant material</li> <li>– soil</li> <li>– hard landscape materials</li> <li>– labour.</li> </ul> </li> </ul>

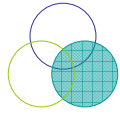
General Outcomes	Specific Outcomes
<p><b>Students will identify and use field soils in a landscaping environment.</b></p>	<p><b>Field Soils</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify and use the types of field soils needed in exterior landscaping; e.g., <ul style="list-style-type: none"> <li>– black loam</li> <li>– clay</li> <li>– sand</li> </ul> </li> <li>• identify and use the modifiers needed to make a satisfactory growing medium; e.g., <ul style="list-style-type: none"> <li>– peat moss</li> <li>– sharp sand</li> </ul> </li> <li>• demonstrate proper soil mixes for: <ul style="list-style-type: none"> <li>– trees and shrubs</li> <li>– perennials</li> <li>– sod.</li> </ul> </li> </ul>
<p><b>Students will identify plant material used in landscaping.</b></p>	<p><b>Landscaping Plants</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify the characteristics of plants, such as shapes, sizes, needs, optimum location, hardiness, used in landscaping projects; e.g., <ul style="list-style-type: none"> <li>– deciduous trees/shrubs</li> <li>– evergreens</li> <li>– perennials.</li> </ul> </li> </ul>
<p><b>Students will develop an understanding of the principles of landscape design.</b></p>	<p><b>Landscape Design</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• design a simple residential landscape plan</li> <li>• sketch landscape designs</li> <li>• explore landscape design software</li> <li>• present a planting plan, including: <ul style="list-style-type: none"> <li>– foundation plantings</li> <li>– perennial borders</li> <li>– mixed beds</li> </ul> </li> <li>• identify xeriscaping and incorporate its principles into a landscape plan</li> <li>• identify the environmental benefits of landscaping; e.g., <ul style="list-style-type: none"> <li>– air quality</li> <li>– erosion control</li> <li>– temperature and wind control.</li> </ul> </li> </ul>

General Outcomes	Specific Outcomes
<p><b>Students will demonstrate effective construction of an exterior landscape.</b></p>	<p><b>Exterior Landscape Planting</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• follow a given landscape plan</li> <li>• identify and demonstrate techniques for planting trees and shrubs and laying sod for a landscaping project; e.g., <ul style="list-style-type: none"> <li>– prepare the hole</li> <li>– prepare the modified soil</li> <li>– place the plant material in the hole with a base of good soil</li> <li>– dig the hole to proper depth and diameter, in relation to the plant material</li> <li>– fill, properly, around the plant with new soil</li> <li>– firm down the new soil</li> </ul> </li> <li>• identify procedures for the staking of trees.</li> </ul>
<p><b>Students will identify various landscaping products and their roles in landscape development.</b></p>	<p><b>Landscape Construction</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify the varieties of hard landscaping in a residential yard; e.g., <ul style="list-style-type: none"> <li>– decks</li> <li>– fencing</li> <li>– landscaping stone; e.g., interlocking bricks, retaining walls, planters</li> </ul> </li> <li>• identify the functional purpose of different types of hard landscaping</li> <li>• incorporate hard landscaping into a landscape plan.</li> </ul>
<p><b>Students will identify processes and techniques for creating an interior landscape.</b></p>	<p><b>Interior Landscaping</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify interior plants that can be grown or used for decoration within the home, office or public buildings</li> <li>• identify the different conditions that exist in the interior environment; e.g., light and temperature</li> <li>• analyze light intensity from different sources at different times; e.g., <ul style="list-style-type: none"> <li>– direct sunlight from north, south, east and west windows</li> <li>– artificial light from high-intensity or fluorescent lights</li> </ul> </li> <li>• identify procedures for transplanting interior plants</li> <li>• identify plant problems within an interior space</li> <li>• plan and design an interior landscape.</li> </ul>



## ENSURING QUALITY

General Outcomes	Specific Outcomes
<p><b>Students will continue to develop an understanding of the value of effective task management processes by applying knowledge and skills to simulated and actual work situations.</b></p>	<p><b>Task Management</b></p> <p><b>Outcomes</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• read and/or listen to instructions</li><li>• ask questions to clarify expected outcomes, procedures and timelines.</li></ul> <p><b>Decision Making</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• identify the parameters of the task</li><li>• generate and review alternative ideas and their consequences</li><li>• make a decision or select an idea.</li></ul> <p><b>Planning</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• identify the steps involved in managing a project</li><li>• prepare a sample project plan, including budget and timeline</li><li>• identify available tools, equipment and materials.</li></ul> <p><b>Performance Standards</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• identify expected standards for a product or service</li><li>• ensure a product or service meets the expected standards and timelines.</li></ul> <p><b>Evaluation</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• identify opportunities for improving quality</li><li>• establish expectations and measures for improvements</li><li>• create evidence to support an understanding of task management and skill development for inclusion in a personal portfolio.</li></ul>



**ACADEMIC COMPETENCIES:** These are the minimum academic competencies that provide a foundation for further learning. The following outcomes are provided as a reminder to address these academic competencies within the occupational context and to reinforce cross-curricular connections.

## COMMUNICATION

General Outcomes	Specific Outcomes
<b>Students will demonstrate effective listening, speaking, reading and writing skills.</b>	<b>Listening, Speaking, Reading and Writing</b> <i>Students will:</i> <ul style="list-style-type: none"><li>• read, view and interpret occupation-related materials; e.g.,<ul style="list-style-type: none"><li>– use related occupational terms</li><li>– identify occupation-related literature</li><li>– interpret and follow written instructions</li></ul></li><li>• select and create a text format to suit a purpose and audience, e.g., forms, letters, reports, memos, résumé, and:<ul style="list-style-type: none"><li>– describe uses of writing skills in related occupations</li><li>– write a letter of inquiry</li><li>– write a letter of thanks</li><li>– complete job applications</li></ul></li><li>• listen and present information in a clear, concise manner; e.g.,<ul style="list-style-type: none"><li>– listen attentively to organize and classify information and ideas</li><li>– organize main ideas and key messages with clarity.</li></ul></li></ul>

## THINKING

**Students will apply creative thinking skills to solve problems.**

### **Problem Solving, Decision Making and Creative Thinking**

*Students will:*

- apply a problem-solving model to identify the problem/issue
- identify appropriate actions and develop several alternatives for each promising idea
- evaluate the results, in terms of expected outcomes related to the initial problem, and evaluate personal satisfaction with the outcome of the idea; e.g., product/process.

## NUMERACY

General Outcomes	Specific Outcomes
<p>Students will apply mathematical concepts to solve occupational problems.</p>	<p><b>Basic Operations, Patterns and Relationships, Shape and Space, and Statistics and Probability</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• apply arithmetic operations, e.g., addition, subtraction, multiplication or division, to whole numbers and decimals and use number operations when creating and solving money problems</li><li>• use calculators or computers, to perform calculations involving large and small numbers, when solving problems</li><li>• apply concepts of rate, ratio, percentage and proportion to solve problems in a meaningful context</li><li>• demonstrate a number sense for whole numbers 0 to 100 000 and explore proper fractions and decimals</li><li>• estimate, measure and compare, using decimal numbers and standard units of measure, to solve problems in everyday contexts; e.g., mass, length, volume, time, perimeter, surface area</li><li>• use metric and imperial units of measure.</li></ul>

## INFORMATION TECHNOLOGY

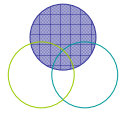
<p>Students will enhance their performance by using information technology to help complete tasks.</p>	<p><b>Computer Operations and Computer Applications</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• demonstrate appropriate language and etiquette when using information technology</li><li>• demonstrate appropriate telephone operations; e.g., answer telephone calls appropriately, locate numbers and make telephone calls</li><li>• demonstrate basic computer operations to complete a task; e.g.,<ul style="list-style-type: none"><li>– use basic keyboarding skills</li><li>– store, organize and retrieve information correctly</li><li>– locate and select information and ideas using appropriate technology and information systems; e.g., Internet</li><li>– access, send and retrieve e-mail and attachments</li></ul></li><li>• demonstrate procedures for connecting and using audio, video and digital equipment</li><li>• demonstrate procedures for sending and receiving faxes and setting up a fax machine</li><li>• demonstrate procedures for copying and printing documents.</li></ul>
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## LANDSCAPING AND MAINTENANCE 30-4 GENERAL OUTCOMES

<b>Employability Competencies</b>	<b>Students will develop these competencies throughout the learning process and demonstrate them in daily life and the workplace.</b>
Managing Transitions	<ul style="list-style-type: none"> <li>• Students will consistently demonstrate personal discovery and continuous learning.</li> <li>• Students will manage change effectively to support their goals.</li> <li>• Students will prepare themselves for entry-level employment in an occupation that reflects their personal aptitudes and interests.</li> </ul>
Personal Management	<ul style="list-style-type: none"> <li>• Students will exhibit self-esteem and confidence through the achievement of personal goals.</li> <li>• Students will manage risks to achieve both personal and workplace goals.</li> </ul>
Working with Others	<ul style="list-style-type: none"> <li>• Students will model effective communication skills and strategies in the home, school, community and workplace.</li> <li>• Students will promote equity in work and community endeavours.</li> <li>• Students will demonstrate the ability to complete tasks in a team environment.</li> </ul>
<b>Occupational Competencies</b>	<b>Students will develop and demonstrate the following competencies to succeed in a specific occupation or career.</b>
Achieving Results	<ul style="list-style-type: none"> <li>• Students will prepare for entry-level employment within a landscaping and maintenance career environment.</li> <li>• Students will demonstrate entry-level standards of safe workplace practices and procedures.</li> <li>• Students will use technology to develop a high-quality product or service.</li> <li>• Students will demonstrate the appropriate skills necessary to maintain plants within a home or office building environment.</li> <li>• Students will demonstrate the skills needed to effectively maintain an exterior landscape.</li> </ul>
Ensuring Quality	<ul style="list-style-type: none"> <li>• Students will demonstrate an understanding of the value of effective task management processes by applying knowledge and skills to simulated and actual work situations.</li> </ul>
<b>Academic Competencies</b>	<b>Students will continue to develop these minimum academic competencies that provide a foundation for further learning.</b>
Communication	<ul style="list-style-type: none"> <li>• Students will demonstrate effective listening, speaking, reading and writing skills to prepare for employment.</li> </ul>
Thinking	<ul style="list-style-type: none"> <li>• Students will research information, use creative thinking skills and use effective problem-solving strategies to solve problems.</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>• Students will demonstrate mathematical operations to effectively solve problems in a meaningful context.</li> </ul>
Information Technology	<ul style="list-style-type: none"> <li>• Students will demonstrate the effective use of information technology to perform daily workplace operations.</li> </ul>

## LANDSCAPING AND MAINTENANCE 30-4



**EMPLOYABILITY COMPETENCIES:** These competencies are developed throughout the learning process and are demonstrated in daily life and the workplace. Students will develop and demonstrate these competencies through individual effort and interpersonal interaction while completing a variety of projects/activities.

### MANAGING TRANSITIONS

General Outcomes	Specific Outcomes
<p><b>Students will consistently demonstrate personal discovery and continuous learning.</b></p>	<p><b>Lifelong Learning</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify learning opportunities related to learning goals, commitments and resources; e.g.,                             <ul style="list-style-type: none"> <li>– identify opportunities for further education/training</li> <li>– locate needed financial support systems</li> <li>– locate needed personal support systems</li> </ul> </li> <li>• practise what has been learned to build competence and confidence and evaluate the application of competencies to learning goals</li> <li>• create a plan that demonstrates continuous learning; e.g.,                             <ul style="list-style-type: none"> <li>– analyze requirements for graduation and for further education/training</li> <li>– modify a learning plan to reflect requirements and opportunities.</li> </ul> </li> </ul>
<p><b>Students will manage change effectively to support their goals.</b></p>	<p><b>Adapting to Change</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• prioritize and assign resources to meet commitments and goals</li> <li>• prioritize commitments and goals to achieve a balanced lifestyle</li> <li>• redefine an action plan as situations change; e.g.,                             <ul style="list-style-type: none"> <li>– use adaptive strategies</li> <li>– redefine personal goals</li> <li>– select personal coping mechanisms</li> </ul> </li> <li>• access available and appropriate sources of support</li> <li>• identify opportunities for improvement and innovation; e.g., entrepreneurship.</li> </ul>
<p><b>Students will prepare themselves for entry-level employment in an occupation that reflects their personal aptitudes and interests.</b></p>	<p><b>Career Development</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• analyze elements of job satisfaction; e.g., recognition, environment, pay, benefits, prestige</li> <li>• build personal career paths and networks</li> <li>• analyze how work contributes to societal and economic needs and a sense of responsibility</li> <li>• prepare for employment through community partnership activities and organize and complete specific job tasks effectively and efficiently.</li> </ul>

## PERSONAL MANAGEMENT

General Outcomes	Specific Outcomes
<b>Students will exhibit self-esteem and confidence through the achievement of personal goals.</b>	<b>Self-development</b> <i>Students will:</i> <ul style="list-style-type: none"><li>• continue to create a long-term self-development plan in which they consider accomplishments and redefine self-development goals</li><li>• demonstrate entry-level self-presentation appropriate to the activity and role</li><li>• maintain a high standard of personal ethics when interacting with others.</li></ul>
<b>Students will manage risks to achieve both personal and workplace goals.</b>	<b>Risk Management</b> <i>Students will:</i> <ul style="list-style-type: none"><li>• maintain health and safety procedures; e.g., at home, at school, in the community and in the workplace</li><li>• monitor success in reducing the impact of hazards on themselves and others</li><li>• demonstrate concern for the safety of others by exhibiting appropriate behaviour in the workplace</li><li>• work with others to respond to emergencies</li><li>• take planned risks to contribute to personal growth.</li></ul>

## WORKING WITH OTHERS

**Students will model effective communication skills and strategies in the home, school, community and workplace.**

### **Interpersonal Communication**

*Students will:*

- communicate thoughts and feelings appropriately; e.g.,
  - listen without interrupting
  - contribute to be heard
  - disagree courteously
  - accept conflicting opinions
  - use appropriate body language
- maintain a balance between speaking, listening and responding
- work together to achieve goals
- demonstrate the ability to deal constructively with conflict.

**Students will promote equity in work and community endeavours.**

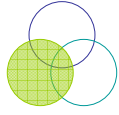
### **Building Community**

*Students will:*

- demonstrate and model courteous behaviour in daily interactions
- demonstrate respect for others and a shared understanding of diverse beliefs, etiquette and styles of interaction
- assess their personal contribution to community growth.

General Outcomes	Specific Outcomes
<p><b>Students will demonstrate the ability to complete tasks in a team environment.</b></p>	<p><b>Teamwork</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• assess the effectiveness of group and personal contributions; e.g., <ul style="list-style-type: none"> <li>– generate ideas</li> <li>– assess resources</li> <li>– contribute abilities and interests</li> <li>– monitor progress</li> <li>– share responsibility for completion of a task</li> </ul> </li> <li>• expand their abilities to contribute to team goals.</li> </ul>





**OCCUPATIONAL COMPETENCIES:** Students will develop and demonstrate the following competencies to succeed in a specific occupation or career. They will achieve results through a variety of projects/activities as appropriate to enhance their knowledge and skills. Students will ensure the quality of their work through effective task management and will highlight their achievements in a career-based portfolio.

## ACHIEVING RESULTS

General Outcomes	Specific Outcomes
<p><b>Students will prepare for entry-level employment within a landscaping and maintenance career environment.</b></p>	<p><b>Career Awareness</b></p> <p><b>Preparation</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• assess entry-level competencies</li> <li>• recognize opportunities for further education/training</li> <li>• select post-secondary opportunities</li> <li>• identify local entrepreneurs</li> <li>• establish contacts with local businesses/industries</li> <li>• explore career opportunities in landscaping maintenance; e.g.,               <ul style="list-style-type: none"> <li>– home</li> <li>– commercial</li> <li>– golf course</li> <li>– parks and recreational</li> </ul> </li> <li>• present marketable skills and strengths; e.g.,               <ul style="list-style-type: none"> <li>– write a letter of application</li> <li>– prepare a résumé</li> <li>– complete application forms</li> <li>– identify contacts and references</li> <li>– collect evidence of competencies in a portfolio</li> </ul> </li> <li>• demonstrate an informed decision-making process; e.g.,               <ul style="list-style-type: none"> <li>– collect evidence supporting their career choice</li> <li>– integrate evidence to support an informed selection of a career pathway</li> <li>– present a collection of artifacts and reflections to support an informed selection of a career pathway</li> <li>– use essential skill assessment devices to construct a personal learning exit plan.</li> </ul> </li> </ul>

General Outcomes	Specific Outcomes
<p><b>Students will demonstrate entry-level standards of safe workplace practices and procedures.</b></p>	<p><b>Standards</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• demonstrate workplace protocols, procedures and standards of conduct; e.g., <ul style="list-style-type: none"> <li>– demonstrate appropriate work habits</li> <li>– demonstrate effective human relations techniques in the workplace</li> <li>– practise safety in the workplace</li> <li>– demonstrate acceptable verbal and nonverbal communication skills</li> <li>– practise personal and public hygiene procedures</li> <li>– demonstrate entry-level competency in tools and equipment usage</li> <li>– use supplies correctly</li> <li>– follow good storage practices</li> <li>– demonstrate pride in their work performance</li> <li>– demonstrate a willingness to work</li> <li>– demonstrate respect for others</li> <li>– follow accepted principles and procedures</li> <li>– recognize opportunities for further education/training.</li> </ul> </li> </ul> <p><b>Workplace Health and Safety</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify and explain the use of safety devices within the workplace</li> <li>• demonstrate knowledge of, and the ability to access information about, Occupational Health and Safety (OHS) and the Workers' Compensation Board (WCB)</li> <li>• demonstrate a prework and postwork hazard assessment</li> <li>• demonstrate knowledge of, and adherence to, safety rules that are specific to available tools, equipment and materials</li> <li>• demonstrate knowledge of health hazards associated with the use of chemicals and materials and retrieve information on Material Safety Data Sheets (MSDS) using appropriate print and Internet resources</li> <li>• model safety consciousness by selecting and wearing personal protective equipment (PPE) appropriate to the specific task</li> <li>• demonstrate knowledge of environmental issues relating to the procedures for handling hazardous waste</li> <li>• demonstrate an understanding of the Workplace Hazardous Materials Information System (WHMIS) as it relates to the field of study and identify WHMIS symbols, classes and labelling requirements.</li> </ul>

General Outcomes	Specific Outcomes
<p><b>Students will use technology to develop a high-quality product or service.</b></p>	<p><b>Products and Service</b></p> <p><b>Technology Integration</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• use new and emerging products and technological advances needed in landscaping and maintenance; e.g., <ul style="list-style-type: none"> <li>– examine the effects of current technological advances in the landscaping and maintenance industry and explain the impact of current technology on the job descriptions of future landscaping and maintenance trade workers.</li> </ul> </li> </ul> <p><b>Providing Service</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify client relationships or interactions within the field of landscaping and maintenance</li> <li>• identify services needed, required or provided</li> <li>• collect necessary information to complete a purchase or fill out a work order</li> <li>• recognize the importance of customer or client service to all businesses/industries</li> <li>• demonstrate professional practices and work habits</li> <li>• strive to meet and exceed the client’s expectations</li> <li>• estimate quantities, areas and volumes; e.g., of sod and soil</li> <li>• identify the costs of landscaping products and services</li> <li>• estimate all costs involved in a landscaping project; e.g., <ul style="list-style-type: none"> <li>– plant material</li> <li>– soil</li> <li>– hard landscape materials</li> <li>– labour</li> </ul> </li> <li>• prepare invoices for services provided, including materials.</li> </ul>
<p><b>Students will demonstrate the appropriate skills necessary to maintain plants within a home or office building environment.</b></p>	<p><b>Interior Plant Maintenance</b></p> <p><b>Watering</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• recognize and demonstrate the proper techniques for watering interior plants</li> <li>• determine the factors affecting a maintenance schedule; e.g., <ul style="list-style-type: none"> <li>– location</li> <li>– size of plant and container</li> <li>– soil type</li> <li>– plant type.</li> </ul> </li> </ul>

**Fertilizing**

*Students will:*

- recognize the three main elements listed on a fertilizer container; i.e.,
  - nitrogen (N)
  - phosphorus (P)
  - potassium (K)
- determine analysis of fertilizer to use in interior environments
- schedule fertilizer application.

**Potting**

*Students will:*

- demonstrate potting techniques for interior plants
- identify soil types and requirements
- demonstrate the installation of a plant in a decorative container, including the:
  - selection of the container
  - drainage space
  - installation of the plant
  - application of decorative mulch
- identify and demonstrate the protection of surroundings and effective clean-up procedures.

**Pruning**

*Students will:*

- explain the pruning process
- select appropriate tools for pruning
- identify when pruning is most effective
- demonstrate the effective pruning of different plants; e.g., deciduous trees, deciduous shrubs and evergreens.

**Insect Control**

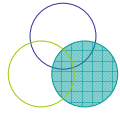
*Students will:*

- identify common insect pests found on office and house plants; e.g.,
  - aphids
  - mealy bugs
  - scale
  - whitefly
  - western flower thrips
- describe plant symptoms that indicate an infestation of pests
- identify and demonstrate, where possible, the safe and effective control of pests
- identify biological controls and their effects.

General Outcomes	Specific Outcomes
<p><b>Students will demonstrate the skills needed to effectively maintain an exterior landscape.</b></p>	<p><b>Exterior Landscape Maintenance</b></p> <p><b>Trees and Shrubs</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify and demonstrate various techniques for growing healthy plant material in a landscape, considering: <ul style="list-style-type: none"> <li>– watering</li> <li>– fertilizing</li> <li>– pruning</li> <li>– insect pests.</li> </ul> </li> </ul> <p><b>Lawns</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify the requirements for effective lawn care; e.g., <ul style="list-style-type: none"> <li>– tools and equipment</li> <li>– watering</li> <li>– fertilizing</li> <li>– cutting</li> <li>– power raking</li> <li>– aerating</li> <li>– disease control</li> </ul> </li> <li>• demonstrate effective lawn care</li> <li>• identify and demonstrate weed control; e.g., <ul style="list-style-type: none"> <li>– types of weeds</li> <li>– chemical controls</li> <li>– cultural controls.</li> </ul> </li> </ul> <p><b>Perennial and Annual Borders</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• demonstrate proper maintenance for plant borders, considering: <ul style="list-style-type: none"> <li>– watering</li> <li>– fertilizing</li> <li>– dividing</li> </ul> </li> <li>• identify and demonstrate spring and/or fall clean-up procedures; e.g., <ul style="list-style-type: none"> <li>– general clean-up</li> <li>– soil modification</li> <li>– mulching.</li> </ul> </li> </ul> <p><b>Water Conservation</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• identify water conservation techniques; e.g., <ul style="list-style-type: none"> <li>– mulching</li> <li>– water collection, in containers such as rain barrels</li> <li>– xeriscaping.</li> </ul> </li> </ul>

## ENSURING QUALITY

General Outcomes	Specific Outcomes
<p>Students will demonstrate an understanding of the value of effective task management processes by applying knowledge and skills to simulated and actual work situations.</p>	<p><b>Task Management</b></p> <p><b>Outcomes</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• read and/or listen to instructions</li><li>• ask questions to clarify expected outcomes, procedures and timelines.</li></ul> <p><b>Decision Making</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• identify the parameters of the task</li><li>• generate and review alternative ideas and their consequences</li><li>• make a decision or select an idea.</li></ul> <p><b>Planning</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• identify the steps involved in managing a project</li><li>• prepare a sample project plan, including budget and timeline</li><li>• identify available tools, equipment and materials.</li></ul> <p><b>Performance Standards</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• identify expected standards for a product or service</li><li>• ensure a product or service meets expected standards and timelines.</li></ul> <p><b>Evaluation</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• identify opportunities for improving quality</li><li>• establish expectations and measures for improvements</li><li>• create evidence to support an understanding of task management and skill development for inclusion in a personal portfolio.</li></ul>



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## COMMUNICATION

General Outcomes	Specific Outcomes
<p><b>Students will demonstrate effective listening, speaking, reading and writing skills to prepare for employment.</b></p>	<p><b>Listening, Speaking, Reading and Writing</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• read, view and interpret occupation-related materials for a specific purpose; e.g.,<ul style="list-style-type: none"><li>– read related health and safety documents</li><li>– read terms of employment documents</li><li>– follow written instructions specific to an occupational area</li></ul></li><li>• create text for a specific purpose that clearly communicates information; e.g.,<ul style="list-style-type: none"><li>– write a résumé</li><li>– write a job description</li><li>– submit job application forms</li></ul></li><li>• communicate thoughts and ideas and listen to the thoughts and ideas of others to effectively complete a task; e.g.,<ul style="list-style-type: none"><li>– follow oral instructions</li><li>– give effective oral instructions when necessary.</li></ul></li></ul>

## THINKING

<p><b>Students will research information, use creative thinking skills and use effective problem-solving strategies to solve problems.</b></p>	<p><b>Problem Solving, Decision Making, Finding Information and Creative Thinking</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• demonstrate an effective problem-solving model; e.g.,<ul style="list-style-type: none"><li>– identify the need for a solution to a problem/issue</li><li>– identify why information is needed; e.g., make decisions, inform, persuade</li></ul></li><li>• identify appropriate actions and select and apply information that meets their purposes and needs</li><li>• evaluate the results in terms of expected outcomes and assess the impact of information on their purpose and audience.</li></ul>
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## NUMERACY

General Outcomes	Specific Outcomes
<p>Students will demonstrate mathematical operations to effectively solve problems in a meaningful context.</p>	<p><b>Basic Operations, Patterns and Relationships, Shape and Space, and Statistics and Probability</b></p> <p><i>Students will:</i></p> <ul style="list-style-type: none"><li>• apply arithmetic operations, e.g., addition, subtraction, multiplication or division, to whole numbers and decimals and use number operations when creating and solving money problems</li><li>• use calculators or computers, to perform calculations involving large and small numbers, when solving problems</li><li>• apply concepts of rate, ratio, percentage and proportion</li><li>• demonstrate a number sense for whole numbers 0 to 100 000 and explore proper fractions and decimals</li><li>• estimate, measure and compare, using decimal numbers and standard units of measure, to solve problems in everyday contexts; e.g., mass, length, volume, time, perimeter, surface area</li><li>• use metric and imperial units of measure.</li></ul>

## INFORMATION TECHNOLOGY

Students will demonstrate the effective use of information technology to perform daily workplace operations.

### Computer Operations and Computer Applications

*Students will:*

- model and assume personal responsibility for the ethical use of information technologies
- demonstrate appropriate telephone operations within the workplace; e.g., answer telephone calls appropriately, locate numbers and make telephone calls
- use computer operations to assist in the completion of daily workplace operations; e.g.,
  - use basic keyboarding skills
  - store, organize and retrieve information correctly
  - locate and select information and ideas using appropriate technology and information systems; e.g., Internet
  - access, send and retrieve e-mail and attachments
- demonstrate procedures for connecting and using audio, video and digital equipment
- demonstrate procedures for sending and receiving faxes and setting up a fax machine
- demonstrate procedures for copying and printing documents.