Textiles 3101

Curriculum Guide 2017

Education and Early Childhood Development

Department of Education and Early Childhood Development Mission Statement

The Department of Education and Early Childhood Development will improve provincial early childhood learning and the K-12 education system to further opportunities for the people of Newfoundland and Labrador.

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Acknowledgments

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Section One: Newfoundland and Labrador Curriculum

Introduction

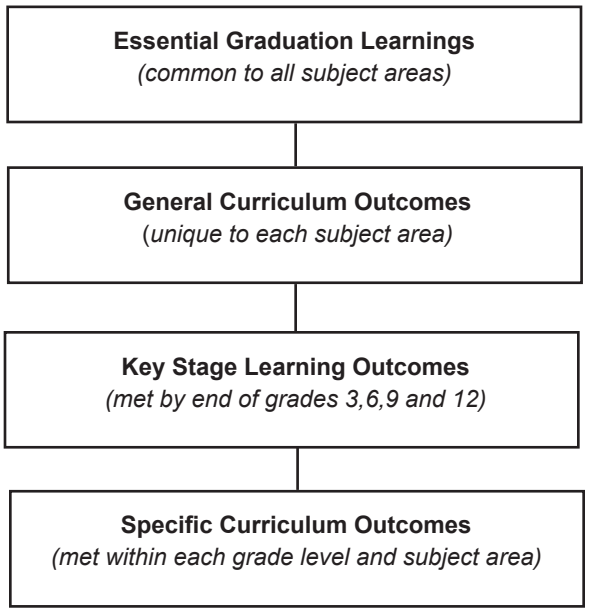
There are multiple factors that impact education: technological developments, increased emphasis on accountability, and globalization. These factors point to the need to consider carefully the education students receive.

The Newfoundland and Labrador Department of Education and Early Childhood Development believes that curriculum design with the following characteristics will help teachers address the needs of students served by the provincially prescribed curriculum:

- Curriculum guides must clearly articulate what students are expected to know and be able to do by the time they graduate from high school.
- There must be purposeful assessment of students' performance in relation to the curriculum outcomes.

Outcomes Based Education

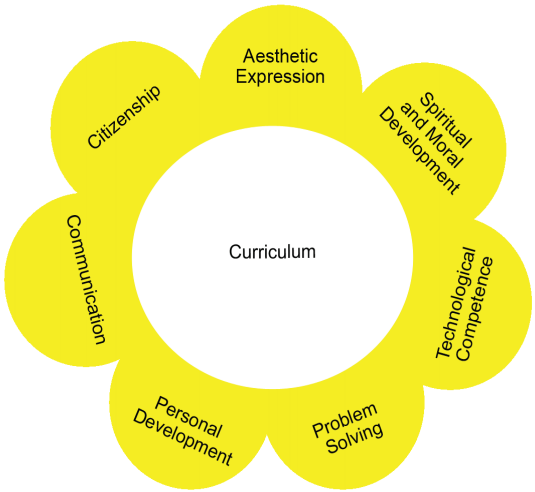
The K-12 curriculum in Newfoundland and Labrador is organized by outcomes and is based on *The Atlantic Canada Framework for Essential Graduation Learning in Schools* (1997). This framework consists of Essential Graduation Learnings (EGLs), General Curriculum Outcomes (GCOs), Key Stage Curriculum Outcomes (KSCOs) and Specific Curriculum Outcomes (SCOs).



Essential Graduation Learnings

EGLs provide vision for the development of a coherent and relevant curriculum. They are statements that offer students clear goals and a powerful rationale for education. The EGLs are delineated by general, key stage, and specific curriculum outcomes.

EGLs describe the knowledge, skills, and attitudes expected of all students who graduate from high school. Achievement of the EGLs will prepare students to continue to learn throughout their lives. EGLs describe expectations, not in terms of individual subject areas, but in terms of knowledge, skills, and attitudes developed throughout the K-12 curriculum. They confirm that students need to make connections and develop abilities across subject areas if they are to be ready to meet the shifting and ongoing demands of life, work, and study.



Aesthetic Expression – Graduates will be able to respond with critical awareness to various forms of the arts and be able to express themselves through the arts.

Citizenship – Graduates will be able to assess social, cultural, economic, and environmental interdependence in a local and global context.

Communication – Graduates will be able to use the listening, viewing, speaking, reading and writing modes of language(s), and mathematical and scientific concepts and symbols, to think, learn and communicate effectively.

Problem Solving – Graduates will be able to use the strategies and processes needed to solve a wide variety of problems, including those requiring language, and mathematical and scientific concepts.

Personal Development – Graduates will be able to continue to learn and to pursue an active, healthy lifestyle.

Spiritual and Moral Development – Graduates will demonstrate understanding and appreciation for the place of belief systems in shaping the development of moral values and ethical conduct.

Technological Competence – Graduates will be able to use a variety of technologies, demonstrate an understanding of technological applications, and apply appropriate technologies for solving problems.

Curriculum Outcomes

Curriculum outcomes are statements that articulate what students are expected to know and be able to do in each program area in terms of knowledge, skills, and attitudes.

Curriculum outcomes may be subdivided into General Curriculum Outcomes, Key Stage Curriculum Outcomes, and Specific Curriculum Outcomes.

General Curriculum Outcomes (GCOs)

Each program has a set of GCOs which describe what knowledge, skills, and attitudes students are expected to demonstrate as a result of their cumulative learning experiences within a subject area. GCOs serve as conceptual organizers or frameworks which guide study within a program area. Often, GCOs are further delineated into KSCOs.

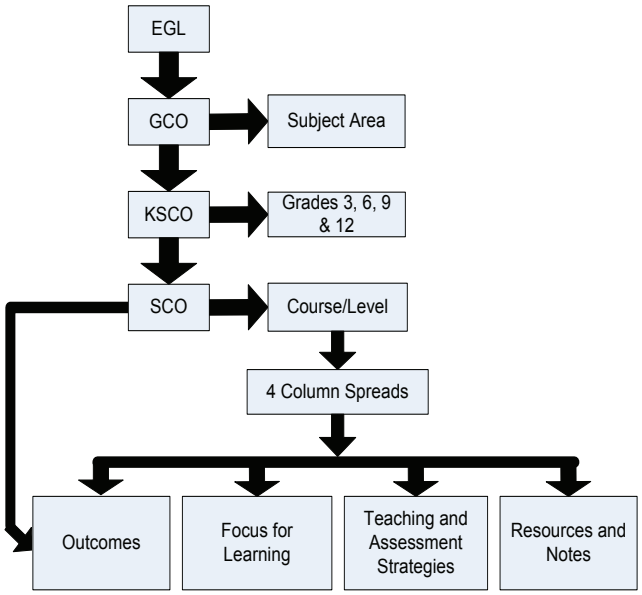
Key Stage Curriculum Outcomes (KSCOs)

Key Stage Curriculum Outcomes (KSCOs) summarize what is expected of students at each of the four key stages of grades three, six, nine, and twelve.

Specific Curriculum Outcomes (SCOs)

SCOs set out what students are expected to know and be able to do as a result of their learning experiences in a course, at a specific grade level. In some program areas, SCOs are further articulated into delineations. *It is expected that all SCOs will be addressed during the course of study covered by the curriculum guide.*

EGLs to Curriculum Guides



Context for Teaching and Learning

Teachers are responsible to help students achieve outcomes. This responsibility is a constant in a changing world. As programs change over time so does educational context. Several factors make up the educational context in Newfoundland and Labrador today: inclusive education, support for gradual release of responsibility teaching model, focus on literacy and learning skills in all programs, and support for education for sustainable development.

Inclusive Education

Valuing Equity and Diversity

Effective inclusive schools have the following characteristics: supportive environment, positive relationships, feelings of competence, and opportunities to participate. (The Centre for Inclusive Education, 2009)

All students need to see their lives and experiences reflected in their school community. It is important that the curriculum reflect the experiences and values of all genders and that learning resources include and reflect the interests, achievements, and perspectives of all students. An inclusive classroom values the varied experiences and abilities as well as social and ethno-cultural backgrounds of all students while creating opportunities for community building. Inclusive policies and practices promote mutual respect, positive interdependencies, and diverse perspectives. Learning resources should include a range of materials that allow students to consider many viewpoints and to celebrate the diverse aspects of the school community.

Differentiated Instruction

Differentiated instruction is a teaching philosophy based on the premise that teachers should adapt instruction to student differences. Rather than marching students through the curriculum lockstep, teachers should modify their instruction to meet students' varying readiness levels, learning preferences, and interests. Therefore, the teacher proactively plans a variety of ways to 'get it' and express learning. (Carol Ann Tomlinson, 2008)

Curriculum is designed and implemented to provide learning opportunities for all students according to abilities, needs, and interests. Teachers must be aware of and responsive to the diverse range of learners in their classes. Differentiated instruction is a useful tool in addressing this diversity.

Differentiated instruction responds to different readiness levels, abilities, and learning profiles of students. It involves actively planning so that the process by which content is delivered, the way the resource is used, and the products students create are in response to the teacher's knowledge of whom he or she is interacting with. Learning environments should be flexible to accommodate various learning preferences of the students. Teachers continually make decisions about selecting teaching strategies and structuring learning activities that provide all students with a safe and supportive place to learn and succeed.

Planning for Differentiation

Create a dynamic classroom:

- Manage routines and class organization.
- Present authentic and relevant communication situations.
- Provide realistic and motivating classroom experiences.

Respond to student differences:

- Allow for multiple ways to demonstrate learning.
- Empower through a gradual release of responsibility.
- Provide opportunities to take ownership of learning goals.

Vary teaching strategies:

- Enable students to collaboratively construct meaning in a positive learning community.
- Provide students with opportunities to make essential links to texts.

Differentiating the Content

Differentiating content requires teachers to pre-assess students to identify those who require prerequisite instruction, as well as those who have already mastered the concept and may therefore apply strategies learned to new situations. Another way to differentiate content is to permit students to adjust the pace at which they progress through the material. Some students may require additional time while others will move through at an increased pace and thus create opportunities for enrichment or more indepth consideration of a topic of particular interest.

Teachers should consider the following examples of differentiating content:

- Meet with small groups to reteach an idea or skill or to extend the thinking or skills.
- Present ideas through auditory, visual, and tactile means.
- Use reading materials such as novels, websites, and other reference materials at varying reading levels.

Differentiating the Process

Differentiating the process involves varying learning activities or strategies to provide appropriate methods for students to explore and make sense of concepts. A teacher might assign all students the same product (e.g., presenting to peers) but the process students use to create the presentation may differ. Some students could work in groups while others meet with the teacher individually. The same assessment criteria can be used for all students.

Teachers should consider flexible grouping of students such as whole class, small group, or individual instruction. Students can be grouped according to their learning styles, readiness levels, interest areas, and/or the requirements of the content or activity presented. Groups should be formed for specific purposes and be flexible in composition and short-term in duration.

Teachers should consider the following examples of differentiating the process:

- Offer hands-on activities for students.
- Provide activities and resources that encourage students to further explore a topic of particular interest.
- Use activities in which all learners work with the same learning outcomes but proceed with different levels of support, challenge, or complexity.

Differentiating the Product

Differentiating the product involves varying the complexity and type of product that students create to demonstrate learning outcomes. Teachers provide a variety of opportunities for students to demonstrate and show evidence of what they have learned.

Teachers should give students options to demonstrate their learning (e.g., create an online presentation, write a letter, or develop a mural). This will lead to an increase in student engagement.

Differentiating the Learning Environment

The learning environment includes the physical and the affective tone or atmosphere in which teaching and learning take place, and can include the noise level in the room, whether student activities are static or mobile, or how the room is furnished and arranged. Classrooms may include tables of different shapes and sizes, space for quiet individual work, and areas for collaboration.

Teachers can divide the classroom into sections, create learning centres, or have students work both independently and in groups. The structure should allow students to move from whole group, to small group, pairs, and individual learning experiences and support a variety of ways to engage in learning. Teachers should be sensitive and alert to ways in which the classroom environment supports their ability to interact with students.

Teachers should consider the following examples of differentiating the learning environment:

- Develop routines that allow students to seek help when teachers are with other students and cannot provide immediate attention.
- Ensure there are places in the room for students to work quietly and without distraction, as well as places that invite student collaboration.
- Establish clear guidelines for independent work that match individual needs.
- Provide materials that reflect diversity of student background, interests, and abilities.

The physical learning environment must be structured in such a way that all students can gain access to information and develop confidence and competence.

Meeting the Needs of Students with Exceptionalities

All students have individual learning needs. Some students, however, have exceptionalities (defined by the Department of Education and Early Childhood Development) which impact their learning. The majority of students with exceptionalities access the prescribed curriculum. For details of these exceptionalities see www.gov.nl.ca/edu/k12/studentsupportservices/exceptionalities.html

Supports for these students may include

1. Accommodations
2. Modified Prescribed Courses
3. Alternate Courses
4. Alternate Programs
5. Alternate Curriculum

For further information, see Service Delivery Model for Students with Exceptionalities at www.cdli.ca/sdm/

Classroom teachers should collaborate with instructional resource teachers to select and develop strategies which target specific learning needs.

Meeting the Needs of Students who are Highly Able

(includes gifted and talented)

Some students begin a course or topic with a vast amount of prior experience and knowledge. They may know a large portion of the material before it is presented to the class or be capable of processing it at a rate much faster than their classmates. All students are expected to move forward from their starting point. Many elements of differentiated instruction are useful in addressing the needs of students who are highly able.

Teachers may

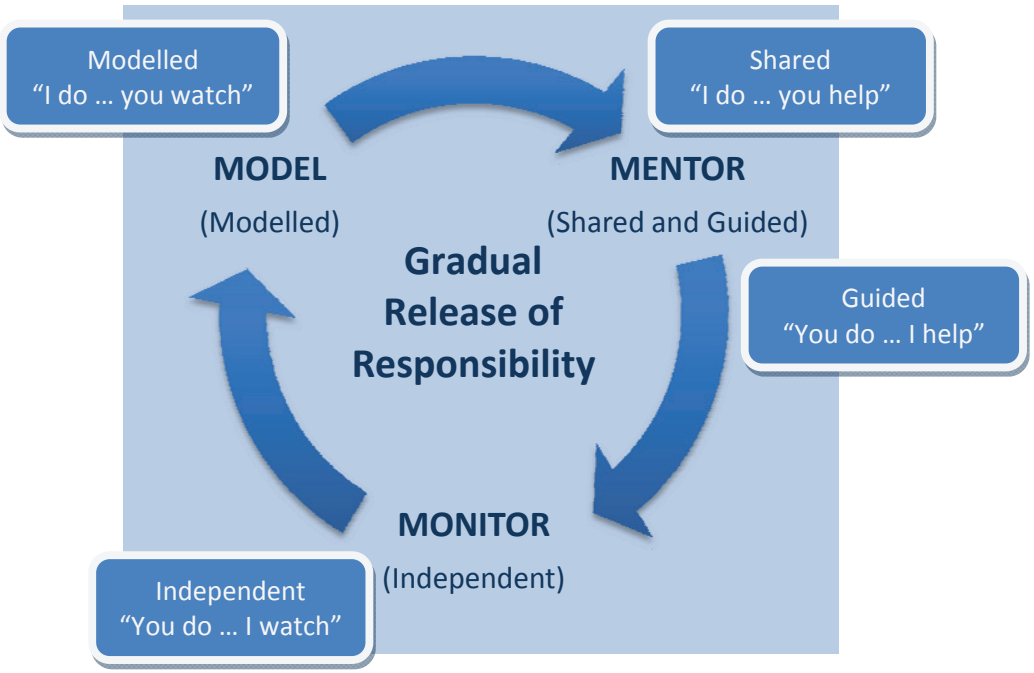
- assign independent study to increase depth of exploration in an area of particular interest;
- compact curriculum to allow for an increased rate of content coverage commensurate with a student's ability or degree of prior knowledge;
- group students with similar abilities to provide the opportunity for students to work with their intellectual peers and elevate discussion and thinking, or delve deeper into a particular topic; and
- tier instruction to pursue a topic to a greater depth or to make connections between various spheres of knowledge.

Highly able students require the opportunity for authentic investigation to become familiar with the tools and practices of the field of study. Authentic audiences and tasks are vital for these learners. Some highly able learners may be identified as gifted and talented in a particular domain. These students may also require supports through the Service Delivery Model for Students with Exceptionalities.

Gradual Release of Responsibility

Teachers must determine when students can work independently and when they require assistance. In an effective learning environment, teachers choose their instructional activities to model and scaffold composition, comprehension, and metacognition that is just beyond the students' independence level. In the gradual release of responsibility approach, students move from a high level of teacher support to independent work. If necessary, the teacher increases the level of support when students need assistance. The goal is to empower students with their own learning strategies, and to know how, when, and why to apply them to support their individual growth. Guided practice supports student independence. As a student demonstrates success, the teacher should gradually decrease his or her support.

Gradual Release of Responsibility Model



Literacy

"Literacy is the ability to identify, understand, interpret, create, communicate and compute, using printed and written materials associated with varying contexts. Literacy involves a continuum of learning in enabling individuals to achieve their goals, to develop their knowledge and potential, and to participate fully in their community and wider society". To be successful, students require a set of interrelated skills, strategies and knowledge in multiple literacies that facilitate their ability to participate fully in a variety of roles and contexts in their lives, in order to explore and interpret the world and communicate meaning. (The Plurality of Literacy and its Implications for Policies and Programmes, 2004, p.13)

Literacy is

- a process of receiving information and making meaning from it; and
- the ability to identify, understand, interpret, communicate, compute, and create text, images, and sounds.

Literacy development is a lifelong learning enterprise beginning at birth that involves many complex concepts and understandings. It is not limited to the ability to read and write; no longer are we exposed only to printed text. It includes the capacity to learn to communicate, read, write, think, explore, and solve problems. Individuals use literacy skills in paper, digital, and live interactions to engage in a variety of activities:

- Analyze critically and solve problems.
- Comprehend and communicate meaning.
- Create a variety of texts.
- Make connections both personally and inter-textually.
- Participate in the socio-cultural world of the community.
- Read and view for enjoyment.
- Respond personally.

These expectations are identified in curriculum documents for specific subject areas as well as in supporting documents, such as *Cross-Curricular Reading Tools* (CAMET).

With modelling, support, and practice, students' thinking and understandings are deepened as they work with engaging content and participate in focused conversations.

Reading in the Content Areas

The focus for reading in the content areas is on teaching strategies for understanding content. Teaching strategies for reading comprehension benefits all students as they develop transferable skills that apply across curriculum areas.

When interacting with different texts, students must read words, view and interpret text features, and navigate through information presented in a variety of ways including, but not limited to

Advertisements	Movies	Poems
Blogs	Music videos	Songs
Books	Online databases	Speeches
Documentaries	Plays	Video games
Magazine articles	Podcasts	Websites

Students should be able to interact with and comprehend different texts at different levels.

There are three levels of text comprehension:

- Independent level – Students are able to read, view, and understand texts without assistance.
- Instructional level – Students are able to read, view, and understand most texts but need assistance to fully comprehend some texts.
- Frustration level – Students are not able to read or view with understanding (i.e., texts may be beyond their current reading level).

Teachers will encounter students working at all reading levels in their classrooms and will need to differentiate instruction to meet their needs. For example, print texts may be presented in audio form, physical movement may be associated with synthesizing new information with prior knowledge, or graphic organizers may be created to present large amounts of print text in a visual manner.

When interacting with information that is unfamiliar to students, it is important for teachers to monitor how effectively students are using strategies to read and view texts:

- Analyze and think critically about information.
- Determine importance to prioritize information.
- Engage in questioning before, during, and after an activity related to a task, text, or problem.
- Make inferences about what is meant but not said.
- Make predictions.
- Synthesize information to create new meaning.
- Visualize ideas and concepts.

Learning Skills for Generation Next

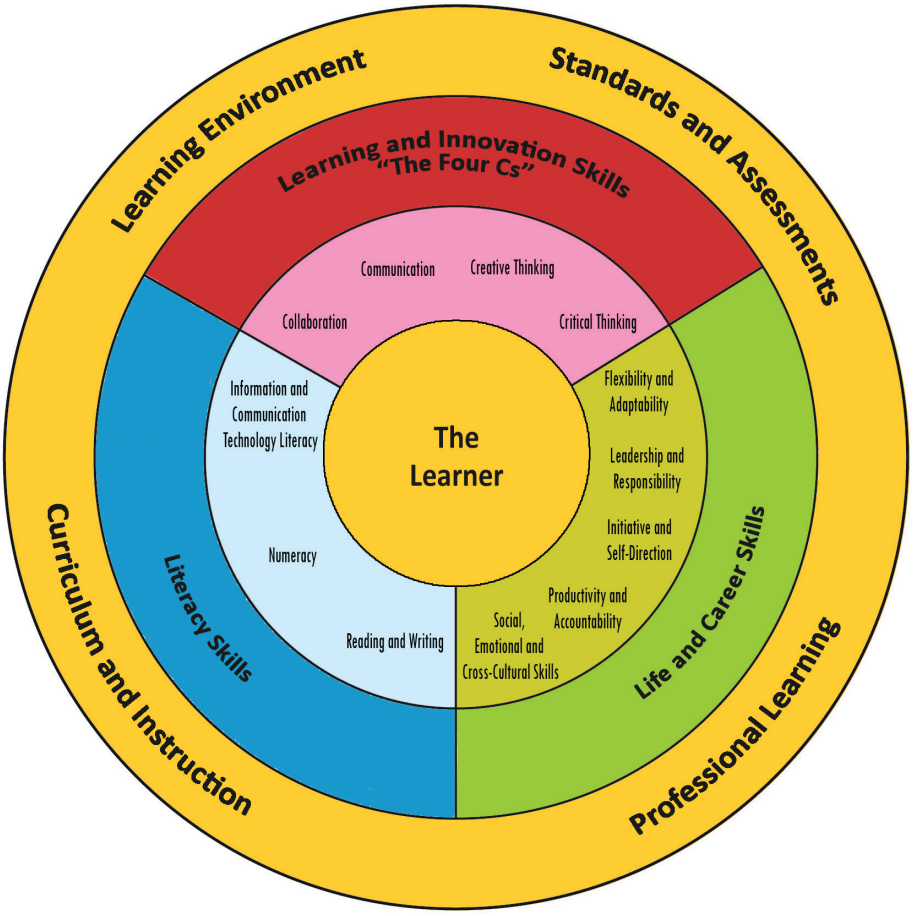
Generation Next is the group of students who have not known a world without personal computers, cell phones, and the Internet. They were born into this technology. They are digital natives.

Students need content and skills to be successful. Education helps students learn content and develop skills needed to be successful in school and in all learning contexts and situations. Effective learning environments and curricula challenge learners to develop and apply key skills within the content areas and across interdisciplinary themes.

Learning Skills for Generation Next encompasses three broad areas:

- Learning and Innovation Skills enhance a person's ability to learn, create new ideas, problem solve, and collaborate.
- Life and Career Skills address leadership, and interpersonal and affective domains.
- Literacy Skills develop reading, writing, and numeracy, and enhance the use of information and communication technology.

The diagram below illustrates the relationship between these areas. A 21st century curriculum employs methods that integrate innovative and research-driven teaching strategies, modern learning technologies, and relevant resources and contexts.



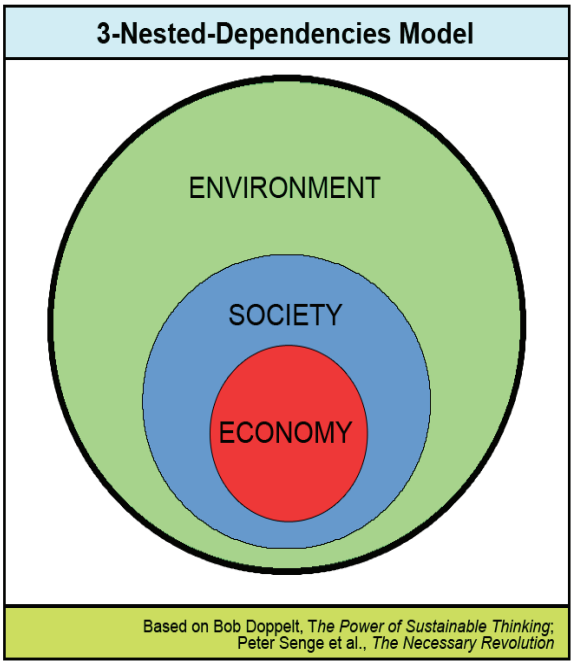
Support for students to develop these abilities and skills is important across curriculum areas and should be integrated into teaching, learning, and assessment strategies. Opportunities for integration of these skills and abilities should be planned with engaging and experiential activities that support the gradual release of responsibility model. For example, lessons in a variety of content areas can be infused with learning skills for Generation Next by using open-ended questioning, role plays, inquiry approaches, self-directed learning, student role rotation, and Internet-based technologies.

All programs have a shared responsibility in developing students' capabilities within all three skill areas.

Education for Sustainable Development

Sustainable development is defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs".(Our Common Future, 43)

Sustainable development is comprised of three integrally connected areas: economy, society, and environment.



As conceived by the United Nations Educational, Scientific, and Cultural Organization (UNESCO) the overall goal of Education for Sustainable Development (ESD) is to integrate the knowledge, skills, values, and perspectives of sustainable development into all aspects of education and learning. Changes in human behaviour should create a more sustainable future that supports environmental integrity and economic viability, resulting in a just society for all generations.

ESD involves teaching *for* rather than teaching *about* sustainable development. In this way students develop the skills, attitudes, and perspectives to meet their present needs without compromising the ability of future generations to meet their needs.

Within ESD, the knowledge component spans an understanding of the interconnectedness of our political, economic, environmental, and social worlds, to the role of science and technology in the development of societies and their impact on the environment. The skills necessary include being able to assess bias, analyze consequences of choices, ask questions, and solve problems. ESD values and perspectives include an appreciation for the interdependence of all life forms, the importance of individual responsibility and action, an understanding of global issues as well as local issues in a global context. Students need to be aware that every issue has a history, and that many global issues are linked.

Assessment and Evaluation

Assessment

Assessment is the process of gathering information on student learning.

How learning is assessed and evaluated and how results are communicated send clear messages to students and others about what is valued.

Assessment instruments are used to gather information for evaluation. Information gathered through assessment helps teachers determine students' strengths and needs, and guides future instruction.

Teachers are encouraged to be flexible in assessing student learning and to seek diverse ways students might demonstrate what they know and are able to do.

Evaluation involves the weighing of the assessment information against a standard in order to make a judgement about student achievement.

Assessment can be used for different purposes:

1. Assessment *for* learning guides and informs instruction.
2. Assessment *as* learning focuses on what students are doing well, what they are struggling with, where the areas of challenge are, and what to do next.
3. Assessment *of* learning makes judgements about student performance in relation to curriculum outcomes.

1. Assessment for Learning

Assessment *for* learning involves frequent, interactive assessments designed to make student learning visible. This enables teachers to identify learning needs and adjust teaching accordingly. Assessment *for* learning is not about a score or mark; it is an ongoing process of teaching and learning:

- Pre-assessments provide teachers with information about what students already know and can do.
- Self-assessments allow students to set goals for their own learning.
- Assessment *for* learning provides descriptive and specific feedback to students and parents regarding the next stage of learning.
- Data collected during the learning process from a range of tools enables teachers to learn as much as possible about what a student knows and is able to do.

2. Assessment as Learning

Assessment *as* learning involves students' reflecting on their learning and monitoring their own progress. It focuses on the role of the student in developing metacognition and enhances engagement in their own learning. Students can

- analyze their learning in relation to learning outcomes,
- assess themselves and understand how to improve performance,
- consider how they can continue to improve their learning, and
- use information gathered to make adaptations to their learning processes and to develop new understandings.

3. Assessment of Learning

Assessment *of* learning involves strategies designed to confirm what students know in terms of curriculum outcomes. It also assists teachers in determining student proficiency and future learning needs. Assessment *of* learning occurs at the end of a learning experience and contributes directly to reported results. Traditionally, teachers relied on this type of assessment to make judgements about student performance by measuring learning after the fact and then reporting it to others. Used in conjunction with the other assessment processes previously outlined, assessment *of* learning is strengthened. Teachers can

- confirm what students know and can do;
- report evidence to parents/guardians, and other stakeholders, of student achievement in relation to learning outcomes; and
- report on student learning accurately and fairly using evidence obtained from a variety of contexts and sources.

Involving Students in the Assessment Process

Students should know what they are expected to learn as outlined in the specific curriculum outcomes of a course as well as the criteria that will be used to determine the quality of their achievement. This information allows students to make informed choices about the most effective ways to demonstrate what they know and are able to do.

It is important that students participate actively in assessment by co-creating criteria and standards which can be used to make judgements about their own learning. Students may benefit from examining various scoring criteria, rubrics, and student exemplars.

Students are more likely to perceive learning as its own reward when they have opportunities to assess their own progress. Rather than asking teachers, "What do you want?", students should be asking themselves questions:

- What have I learned?
- What can I do now that I couldn't do before?
- What do I need to learn next?

Assessment must provide opportunities for students to reflect on their own progress, evaluate their learning, and set goals for future learning.

Assessment Tools

In planning assessment, teachers should use a broad range of tools to give students multiple opportunities to demonstrate their knowledge, skills, and attitudes. The different levels of achievement or performance may be expressed as written or oral comments, ratings, categorizations, letters, numbers, or as some combination of these forms.

The grade level and the activity being assessed will inform the types of assessment tools teachers will choose:

Anecdotal Records	Photographic Documentation
Audio/Video Clips	Podcasts
Case Studies	Portfolios
Checklists	Presentations
Conferences	Projects
Debates	Questions
Demonstrations	Quizzes
Exemplars	Role Plays
Graphic Organizers	Rubrics
Journals	Self-assessments
Literacy Profiles	Tests
Observations	Wikis

Assessment Guidelines

Assessments should measure what they intend to measure. It is important that students know the purpose, type, and potential marking scheme of an assessment. The following guidelines should be considered:

- Collect evidence of student learning through a variety of methods; do not rely solely on tests and paper and pencil activities.
- Develop a rationale for using a particular assessment of learning at a specific point in time.
- Provide descriptive and individualized feedback to students.
- Provide students with the opportunity to demonstrate the extent and depth of their learning.
- Set clear targets for student success using learning outcomes and assessment criteria.
- Share assessment criteria with students so that they know the expectations.

Evaluation

Evaluation is the process of analyzing, reflecting upon, and summarizing assessment information, and making judgements or decisions based on the information gathered. Evaluation is conducted within the context of the outcomes, which should be clearly understood by learners before teaching and evaluation take place. Students must understand the basis on which they will be evaluated and what teachers expect of them.

During evaluation, the teacher interprets the assessment information, makes judgements about student progress, and makes decisions about student learning programs.

Section Two: Curriculum Design

Rationale

The *Home Economics/Family Studies Education Foundation* document provides the rationale for all courses in this program area. Textiles 3101 is a course within the Family Studies suite of courses. The Foundation document states that

> Home economics education contributes to the development of individuals and the family as functioning units of society. It attempts to provide 1) experiences which develop attitudes, skills, and understandings essential for the maintenance and improvement of family living, and 2) skills that create an awareness that the decisions a person makes affect the quality of his or her life.
>
> In addition, home economics/family studies prepares students to use entrepreneurial skills, accept challenges, adjust and adapt in a climate of change, experiment and use creativity, make informed judgements, and apply reasoned action to practical life situations.
>
> Home economics/family studies education contributes to individual learning and development related to the Essential Graduation Learnings: aesthetic expression citizenship, communication, personal development, problem solving, technological competence, and spiritual and moral development.
>
> The curriculum focus is on practical perennial challenges related to family and daily living and ways of generating responses to these challenges. As a field of study, home economics draws knowledge from many disciplines, including psychology, sociology and the sciences, in the formation of its conceptual framework. It brings a multi-dimensional, multi-disciplinary approach to issues which impact families. Through the five dimensions (Human Development, Foods and Nutrition, Financial Management, Clothing and Textiles and Shelter and Housing), students are provided with opportunities to acquire knowledge, skills, attitudes and abilities to enhance quality of life for individuals and families in Canada and throughout the world.
>
> Through home economics/family studies education, students come to identify, clarify, examine, and deal with significant concerns of daily life. Learning in this area contributes to reasoned judgments by students as they consider their decisions in terms of consequences to self, family, and society.

Curriculum Outcomes Framework

This document provides a learning outcomes framework common to each of the dimensions of home economics/family studies: human development, financial management, foods and nutrition, clothing and textiles, shelter and housing. The outcomes are grouped under knowledge and understandings, skills and abilities, and attitudes and behaviours. The general curriculum outcomes, based on the essential graduation learnings, are the foundation for all home economics and family studies curriculum guides.

Dimensions of Home Economics/Family Studies

The home economics/family studies program focuses on the acquisition of knowledge and understandings, the development of skills and abilities, and the setting of goals for the effective use of personal and family resources. These are the organizers on which the general curriculum outcomes are based. As an interdisciplinary study, home economics/family studies deals with all aspects of daily living for individuals and families. The subject is organized into five dimensions or areas of study, and each of these draws from the social and physical sciences, the arts and its own research to propose and develop systems of action which enhance daily living for individuals, families and the community. These dimensions are the basis for the development of key stage curriculum outcomes.

Clothing and Textiles

Clothing generally ranks fourth in family budget allocation, following shelter, food, and transportation. In addition to its impact on family financial resources, clothing is an expression of personality and individuality, and is a means to satisfy creative needs through aesthetic expression. Creation, selection, purchase, care, and maintenance of clothing and textile items are the focus of this area. As students progress to adulthood, they gradually assume greater responsibility for their wardrobe planning, selection, purchasing and care. Through clothing and textiles, they will have the opportunity to study fabric characteristics, use technological principles and tools, develop basic construction techniques and apply creativity and problem-solving skills. A study of fashion and the clothing industry enables students to become aware of global and environmental issues and to consider career and employment possibilities.

Key Stage Curriculum Outcomes

The key stage curriculum outcomes, based on the general curriculum outcomes, identify what students are expected to know and be able to do at the end of intermediate grades and high school in order to meet the essential graduation learnings. Key stage outcomes are identified for each of the dimensions. These key stage curriculum outcomes serve as the basis for the development of specific programs and courses for home economics/family studies and provide an overview for the teacher.

Specific Curriculum Outcomes

The specific curriculum outcomes are statements that describe what students will know, value, and be able to do as a result of study in a specific course or program at a grade level. These are found in the curriculum guides for each program or course.

	General Curriculum Outcomes (GCOs)	Key Stage Curriculum Outcomes (KSCOs) By the end of grade 12, students will be expected to:
Knowledge and Understandings	GCO 1: Students will demonstrate an understanding of issues and challenges which impact the family.	1. Demonstrate an understanding of how personal and social needs, values and beliefs influence clothing and textile choices 2. Demonstrate an understanding of the evolution of fashion and design 3. Demonstrate an understanding of construction principles, techniques and tools 4. Demonstrate an understanding of the production and manufacture of fibres and fabrics and their use in clothing and textiles 5. Demonstrate an understanding of technological advances in the manufacture of fibres, fabrics and textile products 6. Demonstrate an understanding of the elements and principles of design and how they influence clothing construction and clothing choices 7. Demonstrate an awareness of rights and responsibilities of consumers and citizens in relation to clothing and textiles 8. Demonstrate an awareness of career choices and opportunities in clothing and textiles
Skills and Abilities	GCO 2: Students will demonstrate the capability/ ability to use skills, resources, and processes; and to create conditions and take actions that support individuals and the family.	1. Propose design solutions to a range of challenges related to clothing and textiles 2. Apply the elements and principles of design to clothing and textile projects 3. Complete a project to demonstrate construction skills in fibre and/or fabric 4. Manage and use resources effectively, efficiently and safely to satisfy personal and family needs, values and beliefs in relation to clothing and textiles
Attitudes and Behaviours	GCO 3: Students will be encouraged to evaluate knowledge, attitudes, and capabilities; monitor progress; and set new learning goals as an individual and as a family member.	1. Evaluate their knowledge, attitudes and capabilities related to clothing and textiles and their effect on personal development 2. Monitor their skill development related to clothing and textiles and their ability to work cooperatively 3. Identify and assess goals related to clothing and textiles

Course Overview

Building on Home Economics Intermediate curriculum, Textiles 3101 is designed to offer students an opportunity to pursue a course of study that will increase their knowledge base, develop competencies and possibly motivate a new way of thinking and behaving in today's clothing and textile world.

The course is designed around three units of study with ample opportunity to experiment with fibres, yarns, fabrics and finishes and making a clothing and/or textile product. Unit One explores the prevalence of textiles in our world. Unit Two is focused on experimenting with the use, care and performance of fibres and fabric given fibre source and fabric construction. Unit Three focuses specifically on applying knowledge of fibre, fabric construction and finishes to experiments and a construction project.

The phrase, methods of making, refers to using materials to make a clothing or textile product. The terms construction methods and production methods may also be used to refer to the methods of making. Some of the production methods that exist here are

- sewing (hand and machine), tailoring,quilting;
- spinning;
- knitting, crocheting, rug hooking, tatting, tufting, net-making;
- cross stitching, embroidery (hand and machine), smocking,
- applique, tapestry, stenciling;
- weaving (by hand or by loom), braiding; and
- leather work, hide preparation, beading.

The expertise available to the students from many sources such as the teacher, students, community members, local or visiting artists will help shape the exposure students will have to a variety of experiences.

It is recommended that students' experiences be enriched by studying not only what is relevant to their local area but by expanding their experiences to include what is prominent in other parts of the world.

The recommended percentage of time allocated to each unit is:

- Unit 1: 25%
- Unit 2: 30%
- Unit 3: 45%

Laboratory Environment

Contexts for Teaching and Learning and Appendix A in *The Home Economics/Family Studies Education Foundation* document provide guidance to safe and successful learning experiences for students.

Laboratory requirements are as follows:

- Unit 1: no requirement
- Unit 2: 3 experiments and 1 project
- Unit 3: 2 experiments and 1 project

Equipment is a key component of a Home Economics laboratory. Schools that have traditionally offered Home Economics/Family Studies courses with a laboratory component will be well suited to offer Textiles 3101 (2017 edition).

Suggested Yearly Plan

As this is a one credit course, this plan represents 55 hours of instruction organized into three units. Textiles 3101 is commonly paired with Clothing 1101 for a full year of study. However some students may only do either Clothing 1101 or Textiles 3101. There are no prerequisites for either course. The teacher has autonomy to organize the delivery of the three units and the placement of outcomes within each unit. Below is a recommended sequence.

Unit 1	**Textiles in Our World**		
Summary	This unit focuses on the integral role of fabric based textile products in our lives dating back to the earliest civilizations. Today, textile based products are prevalent in many aspects of our daily lives. Students will investigate the role of textiles in our lives and how the industry has grown to meet societal expectations.		
Sequence of Outcomes by Topic	Historical and Societal Perspectives: Outcomes 1.0, 2.0 and 3.0	Fashion and Fashion Trends: Outcome 4.0	Industry Growth: Outcomes 5.0 and 6.0
Timeframe and %	4 weeks, 25%. Preferably this unit is completed first as there is less independent learning. Textiles Laboratory Requirement: There is no lab requirement in Unit 1.		

Unit 2	**Textiles: From Fibre to Fabric**		
Summary	Unit 2 is about developing competencies related to the use, care and performance of fibres and fabric given fibre source and fabric construction. Students will apply their skills to laboratory based projects.		
Sequence of Outcomes by Topic	Working with Fibres, Fabrics and Finishes: Outcomes 7.0, 8.0, 9.0, and 10.0.	Assessing: Outcomes 11.0, 12.0 and 13.0	Creating: Outcome 14.0
Timeframe and %	5 weeks, 30%. This unit is very hands on and is a major unit of study. Textiles Laboratory Requirement: Completion of a minimum of three experiments are required. Outcomes 7.0, and 8.0 provide opportunities for experiments. Outcome 11.0 requires a hands on project.		

Unit 3	**Working with Textiles**		
Summary	Unit 3 focuses on working with fibres, yarns and fabrics either to make a finished product or to explore construction methods and performance of fabrics under specific conditions. Through examination of fabric composition and construction, students will experiment with its performance. This unit builds on Unit 2 and encourages students to use their knowledge of fabric composition and construction to analyze how fabric contributes to its performance in a finished product.		
Sequence of Outcomes by Topic	Sustainability: Outcome 15.0	Properties of Fibres and Fabrics: Outcome 16.0, 17.0 and 18.0	Mechanics of Working with Fibres and Fabrics: Outcomes 19.0 and 20.0
Timeframe and %	7 weeks, 45% Textiles Laboratory Requirement: Completion of a minimum of two experiments and one project are required in this unit. Outcome 17.0 provides opportunities for experiments while outcome 20.0 provides guidance on the project. There are connections that can be made with the Cultural Connections Initiative and local artists.		

How to Use the Four Column Curriculum Layout

Outcomes

Column one contains specific curriculum outcomes (SCO) and accompanying delineations where appropriate. The delineations provide specificity in relation to key ideas.

Outcomes are numbered in ascending order

Delineations are indented and numbered as a subset of the originating SCO.

All outcomes are related to general curriculum outcomes.

Focus for Learning

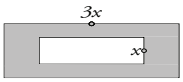
Column two is intended to assist teachers with instructional planning. It also provides context and elaboration of the ideas identified in the first column.

This may include:

- references to prior knowledge
- clarity in terms of scope
- depth of treatment
- common misconceptions
- cautionary notes
- knowledge required to scaffold and challenge student's learning

SPECIFIC CURRICULUM OUTCOMES

GCO 1: Represent algebraic expressions in multple ways

Outcomes	Focus for Learning
Students will be expected to	
1.0 model, record and explain the operations of multiplication and division of polynomial expressions (limited to polynomials of degree less than or equal to 2) by monomials, concretely, pictorially and symbolically. [GCO 1]	From previous work with number operations, students should be aware that division is the inverse of multiplication. This can be extended to divide polynomials by monomials. The study of division should begin with division of a monomial by a monomial, progress to a polynomial by a scalar, and then to division of a polynomial by any monomial.
1.2 model division of a given polynomial expression by a given monomial concretely or pictorially and record the process symbolically.	Division of a polynomial by a monomial can be visualized using area models with algebra tiles. The most commonly used symbolic method of dividing a polynomial by a monomial at this level is to divide each term of the polynomial by the monomial, and then use the exponent laws to simplify. This method can also be easily modelled using tiles, where students use the sharing model for division.
1.3 apply a personal strategy for multiplication and division of a given polynomial expression	Because there are a variety of methods available to multiply or divide a polynomial by a monomial, students should be given the opportunity to apply their own personal strategies. They should be encouraged to use algebra tiles, area models, rules of exponents, the distributive property and repeated addition, or a combination of any of these methods, to multiply or divide polynomials. Regardless of the method used, students should be encouraged to record their work symbolically. Understanding the different approaches helps students develop flexible thinking.
	Sample Performance Indicator Write an expression for the missing dimensions of each rectangle and determine the area of the walkway in the following problem: • The inside rectangle in the diagram below is a flower garden. The shaded area is a concrete walkway around it. The area of the flower garden is given by the expression $2x^2 + 4x$ and the area of the large rectangle, including the walkway and the flower garden, is $3x^2 + 6x$. 

Sample Performance Indicator(s)

This provides a summative, higher order activity, where the response would serve as a data source to help teachers assess the degree to which the student has achieved the outcome.

Performance indicators are typically presented as a task, which may include an introduction to establish a context. They would be assigned at the end of the teaching period allocated for the outcome.

Performance indicators would be assigned when students have attained a level of competence, with suggestions for teaching and assessment identified in column three.

SPECIFIC CURRICULUM OUTCOMES

GCO 1: Represent algebraic expressions in multple ways

Sample Teaching and Assessment Strategies	**Resources and Notes**
Teachers may use the following activities and/or strategies aligned with the corresponding assessment tasks: Modeling division using the sharing model provides a good transition to the symbolic representation. For example, $\frac{3x+12}{3} = \frac{3x}{3} + \frac{12}{3}$. To model this, students start with a collection of three x-tiles and 12 unit tiles and divide them into three groups.  For this example, $x + 4$ tiles will be a part of each group, so the quotient is $x + 4$. **Activation** Students may • Model division of a polynomial by a monomial by creating a rectangle using four x^2-tiles and eight x-tiles, where $4x$ is one of the dimensions. Teachers may • Ask students what the other dimension is and connect this to the symbolic representation. **Connection** Students may • Model division of polynomials and determine the quotient (i) $(6x^2 + 12x - 3) \div 3$ (ii) $(4x^2 - 12x) \div 4x$ **Consolidation** Students may • Draw a rectangle with an area of $36a^2 + 12a$ and determine as many different dimensions as possible. Teachers may • Discuss why there are so many different possible dimensions. **Extension** Students may • Determine the area of one face of a cube whose surface area is represented by the polynomial $24s^2$. • Determine the length of an edge of the cube.	**Authorized** • *Math Makes Sense 9* • Lesson 5.5: Multiplying and Dividing a Polynomial by a Constant • Lesson 5.6: Multiplying and Dividing a Polynomial by a Monomial • ProGuide: pp. 35-42, 43-51 • CD-ROM: Master 5.23, 5.24 • See It Videos and Animations: • Multiplying and Dividing a Polynomial by a Constant, Dividing • Multiplying and Dividing a Polynomial by a Monomial, Dividing • SB: pp. 241-248, 249-257 • PB: pp. 206-213, 214-219

Resources and Notes

Column four references supplementary information and possible resources for use by teachers.

These references will provide details of resources suggested in column two and column three.

Suggestions for Teaching and Assessment

This column contains specific sample tasks, activities, and strategies that enable students to meet the goals of the SCOs and be successful with performance indicators. Instructional activities are recognized as possible sources of data for assessment purposes. Frequently, appropriate techniques and instruments for assessment purposes are recommended.

Suggestions for instruction and assessment are organized sequentially:

- Activation - suggestions that may be used to activate prior learning and establish a context for the instruction
- Connection - linking new information and experiences to existing knowledge inside or outside the curriculum area
- Consolidation - synthesizing and making new understandings
- Extension - suggestions that go beyond the scope of the outcome

These suggestions provide opportunities for differentiated learning and assessment.

How to Use a Strand Overview

At the beginning of each strand grouping there is explanation of the focus for the strand and a flow chart identifying the relevant GCOs, KSCOs and SCOs.

GCO 1: Students will be expected to speak and listen to explore, extend, clarify, and reflect on their thoughts, ideas, feelings, and experiences.

Key Stage 9

- examine others' ideas in discussion to extend their own understanding
- ask relevant questions calling for elaboration, clarification, or qualification and respond thoughtfully to such questions
- articulate, advocate, and support points of view, presenting viewpoints in a convincing manner
- listen critically to assess the adequacy of the evidence speakers give to evaluate the integrity of information presented

1.1 recognize that contributions from others are needed to generate and sustain discussions
1.2 ask questions of others about their ideas
1.3 respond to questions to provide clarification and elaboration
1.4 express a point of view and support it with personal examples, explanations, or reasoning
1.5 use active listening skills to identify main ideas and supporting details

GCO 2: Students will be expected to communicate information and ideas effectively and clearly, and to respond personally and critically.

Key Stage 9

- participate constructively in conversation, small-group and whole-group discussion, and debate, using a range of strategies that contribute to effective talk
- adapt vocabulary, sentence structure, and rate of speech to the speaking occasion
- give and follow instructions and respond to complex questions and directions of increasing complexity
- evaluate their own and others' uses of spoken language in a range of contexts, recognizing the effects of significant verbal and non-verbal language features

2.1 practice a range of strategies that contribute to effective talk
2.2 assess the need for clarification or elaboration when responding to instructions or questions
2.3 identify strategies and behaviours associated with effective speaking

GCO 3: Students will be expected to interact with sensitivity and respect, considering the situation, audience, and purpose.

Key Stage 9

- demonstrate active listening and respect for the needs, rights, and feelings of others
- demonstrate an awareness of the power of spoken language to influence and manipulate and to reveal ideas, values, and attitudes
- demonstrate an awareness that spoken language has different conventions in different situations and cultures and use language appropriate to the situation

3.1 demonstrate active speaking and listening skills
3.2 express ideas and opinions in a manner that reflects sensitivity and shows respect to others
3.3 recognize that values and attitudes such as bias, beliefs, and prejudice can be reflected in oral language
3.4 demonstrate an awareness that oral language can be used to influence and manipulate

GCOs **KSCO** **SCOs**

The SCOs Continuum follows the chart to provide context for teaching and assessment for the grade/course in question. The current grade is highlighted in the chart.

Previous Grade **Current Grade** **Next Grade**

GCO

GCO 1: Students will be expected to speak and listen to explore, extend, clarify, and reflect on their thoughts, ideas, feelings, and experiences.

SCOs

Grade 6	Grade 7	Grade 8
1.0 examine how sharing experiences, explanations or reasoning with others clarifies and extends thinking	1.1 recognize that contributions from others are needed to generate and sustain discussions	1.1 reflect upon the contribution of others' ideas during discussion
2.0 use active listening strategies for a variety of purposes	1.2 ask questions of others about their ideas	1.2 ask questions of others for clarification
3.0 assess how thinking may be affected as a result of listening to others	1.3 respond to questions to provide clarification and elaboration	1.3 respond to questions to provide accuracy, relevancy, and validity
	1.4 express a point of view and support it with personal examples, explanations, or reasoning	1.4 express a point of view and support it with personal examples and evidence from various sources
	1.5 use active listening skills to identify main ideas and supporting details	1.5 use active listening skills to interpret main ideas and the relevancy of supporting details

Section Three:
Specific Curriculum Outcomes

Unit 1: Textiles in Our World

Focus

Fabric based textile products are an integral part of our lives. In the earliest civilizations, natural fibres were used to make cloth for clothes. Since that time the complexity of the fabrics and the technological advancements in production have extended the world of textiles well beyond meeting basic clothing needs. Today there is an array of textiles products that are evident in most aspects of our daily lives.

The unit encourages the student to be aware of the evolution of the role of textile products in our lives. Advancements are evident in the use of textiles in such industries as specialized clothing markets, home and garden, automobile, recreational vehicle, oil and gas, and agriculture.

The unit has the outcomes organized under the headings Historical and Societal Perspectives, Fashion and Fashion Trends, and Industry Growth.

Outcomes Framework

GCO 1 (Knowledge): Students will demonstrate an understanding of the issues and challenges which impact the family.

- demonstrate an understanding of how personal and social needs, values, and beliefs influence clothing and textile choices
- demonstrate an understanding of the evolution of fashion and design
- demonstrate an understanding of the production and manufacture of fibres and fabrics and their use in clothing and textiles
- demonstrate an understanding of technological advances in the manufacture of fibres, fabrics and textile products
- demonstrate an awareness of career choices and opportunities in clothing and textiles

1.0 understand the progression of the use of natural fibres in early civilizations
2.0 describe the impact of events and periods in history on the textile and fashion industry

GCO 2 (Skills): Students will demonstrate the capability/ability to use skills, resources, and processes; and to create conditions and take actions that support individuals and family.

- propose design solutions to a range of challenges related to clothing and textiles
- apply the elements and principles of design to clothing and textile projects
- complete a project to demonstrate construction skills in fibre and/or fabric
- manage and use resources effectively, efficiently and safely to satisfy personal and family needs, values and beliefs in relation to clothing and textiles

3.0 investigate the impact of the industrial revolution on the textile industry
4.0 be competent in using the language of fashion for fashion cycles
5.0 analyze the textile industry and how it meets the needs of specialized markets

GCO 3 (Attitudes): Students will be encouraged to evaluate knowledge, attitudes, and capabilities; monitor progress and set new learning goals as an individual and as a family member.

- evaluate their knowledge, attitudes and capabilities related to clothing and textiles and their effect on personal development
- monitor their skill development related to clothing and textiles and their ability to work cooperatively
- identify and assess goals related to clothing and textiles

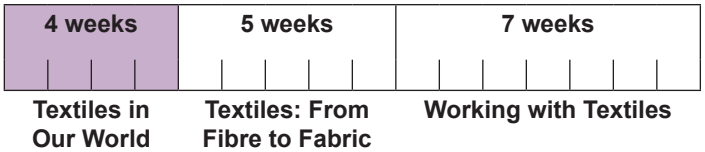
6.0 develop an awareness of the prevalence of textiles in non-apparel industries

SCO Continuum

By Topic	Intermediate Home Economics	Textiles 3101 Unit 1
Historical and Societal Perspectives	1.2 to determine how clothing choices are made. 2.1 to identify and describe briefly some of the factors affecting suitable clothing purchases. 2.2 to outline consumer responsibilities with respect to purchasing clothing.	1.0 understand the progression of the use of natural fibres in early civilizations 2.0 describe the impact of events or periods in history on the textile and fashion industry 3.0 investigate the impact of the industrial revolution on the textile industry
Fashion and Fashion Trends	1.3 to recognize that clothing is a major part of the image one projects to others.	4.0 be competent in using the language of fashion with respect to fashion cycles
Industry Growth		5.0 analyze the textile industry and how it meets the needs of specialized markets 6.0 develop an awareness of the prevalence of textiles in non-apparel industries

Suggested Unit Plan

The delivery plan for unit 1 recommends moving from the outcomes in Historical and Societal Perspectives to those in Fashion and Fashion Trends and finishing with the outcomes in Industry Growth.



Historical and Societal Perspectives

Outcomes

Students will be expected to

1.0 understand the progression of the use of natural fibres in early civilizations [GCO 1]

Focus for Learning

The intent of this outcome is to draw students' attention to early civilizations and how natural fibres were used in their daily living. The natural fibres that were used in early civilizations are cotton, wool, linen, and silk.

Early civilizations would have used what was readily available in their environment to clothe themselves or make other items. Once trade became a factor, other materials were incorporated into their work with clothing and textile items.

The approach to this outcome may be taken from the perspective of a country or geographic area. It is not the intent to examine every country to trace their use of natural fibres but rather to examine one early civilization in addition to putting a focus on Newfoundland and Labrador. The modern countries of Iraq, Egypt, India/Pakistan, and China are modern day countries with roots to early civilizations. For example, 4000 years ago Africa was known for wool and linen cloth. Once trade began with India, cotton was incorporated into their culture. In Newfoundland and Labrador, indigenous people would also have used animal hides, furs and pelts to meet their clothing needs. While animal hides and furs are not classified as fibres, they would be included in discussions about early indigenous culture.

Students should be provided with the following guiding questions to help them follow the progression of the use of natural fibres in a particular country.

- What natural fibre(s) is commonly used in this culture?
- How did trade affect the use of natural fibres?
- What needs, either apparel or non apparel, were met in early civilizations by natural fibres?

Historical and Societal Perspectives

Sample Teaching and Assessment Strategies

Activation

Teachers may

- Brainstorm with the class, a list of natural fibres.
- Supply sample images of clothing worn by ancient civilizations. Ask students to predict which civilization is depicted and the source of the fibres used in each garment.

Students may

- Choose a natural fibre and show how it is used today, in combination with other fibres. Students may predict the rationale for combining it with another fibre(s).

Connection

Teachers may

- Discuss the traditional materials used for clothing by Indigenous cultures of Newfoundland and Labrador and how it has evolved to the materials used for clothing today.

Students may

- Design an article(s) incorporating natural materials that Indigenous cultures may have used, such as feathers, moss, fur, bark, grass, leaves, and stones.

Consolidation

Teachers may

- Choose an early civilization and explain how factors such as the availability of natural fibres, trade and transportation, influenced the progression of the use of fibres over time.

Students may

- Choose an ancient civilization or culture and create a visual to illustrate their contributions to the use of natural fibres throughout history.
- Create a timeline showcasing the progression of fibres throughout ancient civilizations. Identify which fibres were initially used and if other fibres were incorporated over time.

Extension

Students may

- Research modern day Egyptian culture for the prevalence of fibres and fabrics used for clothing and textile products. What factors contribute to the fibres and fabrics currently in use?

Resources and Notes

Authorized

the World of Fashion (Teacher Resource [TR])

- pp. 185-189
- line master 11-1: *The Emergence of Fashion Timeline (1 of 2)*

the World of Fashion (Student Resource [SR])

- pp. 219-223

Suggested

Resource Links: www.k12pl.nl.ca/curr/10-12/family-studies/textiles-3101/resource-links/unit-1-textiles-in-our-world.html

- fibres and clothing in early civilizations

Other curriculum resources

- *Newfoundland and Labrador Studies* (Teacher Resource [TR])
  - pp. 230-231, 240, 360

Historical and Societal Perspectives

Outcomes

Students will be expected to

2.0 describe the impact of events and periods in history on the textile and fashion industry [GCO 1]

Focus for Learning

Throughout time there has been a relationship between historical events and the textile and fashion industry.

The textile industry supplies the fashion industry with the yarns and fabrics needed to make fashions. The Government of Canada website states the following about the Canadian textiles industry.

> Established over 150 years ago, in small, urban communities that offered a stable labour supply and rivers ideally suited for water-generated power and dyeing/finishing processes, the Canadian textile industry started with the manufacture of yarns and fabrics from natural fibres. Currently, the industry is located mainly in Quebec and Ontario, is heavily capital-intensive, uses natural, artificial and manmade fibres and filaments, and supplies a wide range of value-added products to over 150 consumer, household and industrial customers in Canada and worldwide. (retrieved from https://www.ic.gc.ca/eic/site/textiles-textiles.nsf/eng/home)

Fashion has been influenced by major events that happen in a period of time as well as by historical societal changes from decade to decade. Technological advancements throughout history are a major consideration from the perspective of the materials available to designers and the speed with which the fashion industry could meet market needs.

Students should examine the relationship between what is happening around them and the fashion industry. For the purpose of this outcome, examination of this relationship can be reciprocal in nature; it may be studied by choosing a decade or event and determining the impact of it on the fashion industry, or students may identify with a style of an era and choose to investigate the motivation behind it.

Another factor to consider is the degree to which societal influences drive textile technological advancements. Over time, fibres, yarns, fabrics and finishes have been engineered to meet the demands of lifestyle and career expectations. Active wear for yoga, running, or high performance sports are engineered to enhance performance by keeping the body cooler, drier and more agile.

It is expected that each student will examine at least one decade in history and one event. Students will learn about multiple decades and events through class presentations.

Historical and Societal Perspectives

Sample Teaching and Assessment Strategies

Activation

Teachers may

- Compile a list of events or periods in history that contributed to changes in the textiles and fashion industry. A sample list may include the Renaissance, trade agreements, WWI, the Roaring 20s, the Great Depression, WWII, the Hippie Movement and the Disco Era.

Students may

- Look through family photos and identify styles for a specific time period.

Connection

Teachers may

- Ask students to find examples of pop culture having an influence on fashion.

Students may

- Identify a trend in the fashion industry and determine its origin.

Consolidation

Students may

- Choose two periods of fashion history and compare and contrast them. Have students present their information using a medium of their choice.
- Discuss how events and periods in history contribute to changes in the textiles and fashion industry.
- Continue building on the timeline from outcome 1.0 to illustrate how events and periods in history influenced the progression of fibres and fabrics.

Extension

Students may

- Choose an event or period in history and design an outfit that was influenced by that time. Consider the fabrics and styles that were prevalent as well as any notable historical events.

Resources and Notes

Authorized

the World of Fashion (TR)

- pp. 187-189, 206-209
- line master 13-2: *What Influenced Fashion Between 1900 and 1945*
- line master 13-3: *Evolution of a Garment*
- line master 13-4: *The Modernization of Fashion Timeline* (1 of 2)

the World of Fashion (SR)

- pp. 225-230, 235-236, 245-248, 255-261, 263-264, 266

Suggested

Resource Links: www.k12pl.nl.ca/curr/10-12/family-studies/textiles-3101/resource-links/unit-1-textiles-in-our-world.html

- examples of events
- Canadian Textiles Industry

Historical and Societal Perspectives

Outcomes

Students will be expected to

3.0 investigate the impact of the industrial revolution on the textile industry [GCO 2]

Focus for Learning

The industrial revolution is a significant event for its impact on the textile industry and, ultimately, the fashion industry.

Aspects of the textile industry that were impacted by the industrial revolution are

- harvesting of raw materials,
- making yarns and fabric,
- making clothes and textile products, and
- using more efficient modes of transportation for materials.

For each of the aspects outlined above, students should know the machinery associated with various aspects of the clothing/textile production process, and how machinery changed how the work was completed.

The authorized student resource *the World of Fashion* provides guidance on the topic and acts as a springboard for more in depth treatment of the topic.

Sample Performance Indicator

Explain the interrelated nature of fashion and historical time periods. Include factors that have an impact on the fashion industry.

Historical and Societal Perspectives

Sample Teaching and Assessment Strategies

Activation

Teachers may

- Guide a class discussion on the meaning of the proverb "necessity is the mother of invention." Ask students to relate this statement to the Industrial Revolution.

Students may

- Think of a task that is completed using technology that originates in the Industrial Revolution. How would that same task be completed without the use of machinery? Consider the impact on time, labour and markets.
- Think about the tools that are currently used in garment making. Consider how these technologies may have been invented.

Connection

Teachers may

- Facilitate a think-pair-share on innovations currently in use in the fashion industry.

Students may

- Choose an innovation that they think had the greatest impact on the fashion industry.

Consolidation

Teachers may

- Create content for a quiz show using information on the innovations of the Industrial Revolution that changed the fashion industry.

Students may

- Continue to populate the timeline initiated in outcome 1.0 and continued into 2.0 to reflect any major developments in the textile and fashion industries.

Extension

Students may

- Research an idea for a new textile tool or technology. State what it is, its intended use, and a sketch of the prototype. Explain how this innovation will help and in which aspects of the industry.
- The primary, secondary, and tertiary markets, as they pertain to the textile and fashion industry, incorporate innovation to create products. Research how each market segment relies on innovation.

Resources and Notes

Authorized

the World of Fashion (TR)

- pp. 197-199
- line master 12-2: *Key Technological Innovations in the History of Fashion*
- line master 12-3: *Past Influences on Current Fashions*
- line master 12-4: *The Industrialization of Fashion Timeline*

the World of Fashion (SR)

- pp. 238-244, 314

Suggested

Resource Links: www.k12pl.nl.ca/curr/10-12/family-studies/textiles-3101/resource-links/unit-1-textiles-in-our-world.html

- stages of the fashion cycle (videos)

Fashion and Fashion Trends

Outcomes

Students will be expected to

4.0 be competent in using the language of fashion with respect to fashion cycles [GCO 2]

Focus for Learning

When the fashion industry is discussed, there are terms that will be referenced and students will need to acquire an understanding of and a competence in using them when referring to specific aspects of the industry.

In and of itself, fashion cycle is both a term to understand and use. As well, in discussing a specific fashion cycle, there are many other terms that would come into play in discussing the cyclical nature of fashion. Within an actual fashion cycle, terms such as the ones listed below may be referenced. If students were examining the fashion cycle for width of pant legs, history would reveal the cycle from very narrow to flared; the widths in between would complete the cycle. Language used in describing the pant leg width cycle would reference terms such as fashion houses, crazes, fads or trends at a point in the cycle, ready to wear fashion, or style.

Hemlines, collar styles, and cut or fit of coats/suits are examples of fashion cycles that may be researched.

The following terms should be covered under the language of fashion:

- classic
- craze
- demi-couture
- fad
- fashion
- fashion house
- haute couture
- high fashion
- ready to wear
- fashion cycle
- trend
- style

Sample Performance Indicator

Using the research about fashion in a particular decade that was presented to the class for outcome 2.0, revisit the presentations and apply the language of fashion.

Fashion and Fashion Trends

Sample Teaching and Assessment Strategies

Activation

Teachers may

- Use a selection of images to determine if students would use any of the terms listed in column two.

Students may

- Create a fashion vocabulary organizer to reflect familiarity with fashion language.

Connection

Teachers may

- Facilitate a discussion on the difference between a fad and a trend.

Students may

- Discuss and compile a list of fads and trends that were or currently are relevant to them.
- Interview older family members to find out which trends were relevant to them. Use this information to create a visual flow chart of fashion trends noting any trends that have resurfaced throughout the twentieth century as well as any identifiable patterns or evidence of a fashion cycle.

Consolidation

Teachers may

- Ask students to choose an item of clothing and identify the current style for that item. Trace previous styles to determine a cycle.

Students may

- Write a reflective journal on how they would describe their fashion sense using some of the new terms they have learned. For example: Are they a fashion follower who buys fashion trends when they are most popular? Are they a trend setter? Do they monitor designer's fashion collections or do they gravitate towards the classics?

Extension

Students may

- Apply fashion cycle information to the textile industry, specifially, the styles and fabrics used in household items such as sofas and bed dressings. What is the current style? What were the styles in the past? What are their predictions for up and coming styles?

Resources and Notes

Authorized

the World of Fashion (TR)

- pp. 244-253
- line master 16-2: *Fashion Cycle Line Graph*
- line master 16-3: *Back-to-the-Future Fashion Forecasting*

the World of Fashion (SR)

- pp. 253, 316-318, 320-321, 323

Suggested

Resource Links: www.k12pl.nl.ca/curr/10-12/family-studies/textiles-3101/resource-links/unit-1-textiles-in-our-world.html

- stages of a fashion cycle

Industry Growth

Outcomes *Students will be expected to*	**Focus for Learning**
5.0 analyze the textile industry and how it meets the needs of specialized markets [GCO 2]	Specialized markets exist in the apparel and non-apparel industries. The focus of this outcome should be on the textile industry and how it provides what is needed for specialized markets. Markets cater to specific audiences with the apparel and non-apparel products they offer. The products are targeted towards consumers with needs related to babies, pets, various size and height ranges, cultural dress, health and wellness, home and garden, athletics, golfers, motorized sports, and outdoor enthusiasts. The items offered in specialized markets may have fabric requirements that coincide with their intended use. Curtains may need to be room darkening or have an insulative value while others may need to be lightweight and resistent to fading. Encourage students to indicate their interest in specialized markets. If students indicate clothing requirements for snow machine use, then they will need to research what the clothing items are that are marketed to consumers in this segment of the population. Once these are identified, they should think of the fabrics and the finishes that are used to make the products available in the specialized market. In this example students may identify needs such as heavy weighted fabrics, pliability, wind resistant, windproof, water resistant, water proof, insulative value or cold weather rating, zipper features, reflective features, availability of colours, care features such as washability and quick drying.

Industry Growth

Sample Teaching and Assessment Strategies

Activation

Teachers may

- Show students a range of advertisements and other images (e.g. children's wear, maternity wear, plus size clothing, sports apparel, animal apparel) that demonstrate specialty markets.

Students may

- Reflect on a recent shopping event, either in person or virtual,and list the visited stores that catered to a specialty market.

Connection

Students may

- Compare Canada to another country to identify the prevalence of specialized markets in each. What might be the rationale for similarities and differences? Identify market gaps in their community.

Consolidation

Teachers may

- Provide examples of promotional materials from specialty stores and facilitate a critique of the materials from the perspective of the target audience.

Students may

- Imagine they are opening a retail store that caters to a specialty market. Create an advertising campaign appropriate for the target audience to promote the opening of the store.
- Research a textile producer to determine the textiles produced and their intended markets.

Extension

Students may

- Think about specialty markets that relate to phases in life and related events such as a prom or graduation. Consider the marketing of items related to the event, businesses that exist exclusively to cater to this audience, the prevalence of textiles produced for the audience and type of event and financial implications of securing items via specialty markets.

Resources and Notes

Authorized

the World of Fashion (TR)

- pp. 228-237
- line master 15-2: *Prom Fashion*
- line master 15-3: *Reading About and Discussing More Specialized Fashion Markets*
- line master 15-4: *Who? What? Why?*
- line master 15-5: *Investigating a Specialized Market*
- line master 15-6 and A-12: *Business of a Fashion Performance Task*

the World of Fashion (SR)

- pp. 292-308

Suggested

Resource Links: www.k12pl.nl.ca/curr/10-12/family-studies/textiles-3101/resource-links/unit-1-textiles-in-our-world.html

- specialty stores (video)

Industry Growth

Outcomes *Students will be expected to*	**Focus for Learning**
6.0 develop an awareness of the prevalence of textiles in non-apparel industries [GCO 3]	Outcome 5.0 referenced both apparel and non-apparel items in discussing the textile industry and how it meets the needs of specialized markets. Outcome 5.0 and 6.0 could be treated together. This outcome highlights the prevalence of non-apparel items in our society. Fibres, fabrics and finishes meet the needs of an array of products in a variety of industries. The industries that use textiles in their products are • automotive/recreational vehicles/watercraft • cleaning and sanitation • games tables • home furnishings and accessories • linens • novelties • outdoor gear • theatre • tool/construction industry • toy industry • wild game hunting Within each industry, a list of items that would typically have an element of a textile requirement should be included. Outdoor gear should consider items such as tents, backpacks, cloth coolers, sleeping bags, cots, sunshades, and chairs/stools. The discussion should include how fabric requirements of non-apparel applications may be different from that of apparel based textiles.

Industry Growth

Sample Teaching and Assessment Strategies

Activation

Teachers may

- Facilitate a brainstorming session to devise a common definition of textiles.

Students may

- Compile a list of items that are non-apparel textile based.

Connection

Teachers may

- devise a checklist to indicate prevalence of non-apparel textile based items found in the home.

Students may

- Investigate household items with textile elements such as chairs. Are there versions of chairs that do not rely on textiles as an element of the design? What is the effect of not using textiles?

Consolidation

Students may

- Write a journal entry detailing the prevalence and the effect of textiles in household items.
- Collect fabric scraps and identify potential uses, outside of the apparel industry.
- Create a photo library/scrap book of various non-apparel items.

Extension

Students may

- Design a template to create a tessellation appropriate for a printed fabric. Print the pattern on a larger sheet of paper. Consider the uses for the print outside the apparel industry.

Resources and Notes

Authorized

the World of Fashion (TR)

- pp. 158-161

the World of Fashion (SR)

- pp. 188, 191

Suggested

Resource Links: www.k12pl.nl.ca/curr/10-12/family-studies/textiles-3101/resource-links/unit-1-textiles-in-our-world.html

- non-apparel textiles

Section Three:
Specific Curriculum Outcomes

Unit 2: Textiles: From Fibre to Fashion

Focus

Unit 2 brings the focus back to the source of all fabrics used in fashion and textile products; the fibres. Because fibres are the building blocks of any design project, it is necessary to know about the source fibre(s). The source of the fibre will determine its uses, care schedule, and performance.

In addition to considering fibre source for a fashion or textile product, fabric construction has implications for use, care schedule and performance.

This course assumes no prior knowledge or skill level in terms of operating in a Clothing/Textiles Lab environment. This unit allows the student to explore this course of study and develop it further if there is a desire to do so.

The unit is organized under the headings Working with Fibres, Fabrics and Finishes, Assessing, and Creating.

Outcomes Framework

GCO 1 (Knowledge): Students will demonstrate an understanding of the issues and challenges which impact the family.

- demonstrate an understanding of how personal and social needs, values, and beliefs influence clothing and textile choices
- demonstrate an understanding of the evolution of fashion and design
- demonstrate an understanding of the production and manufacture of fibres and fabrics and their use in clothing and textiles
- demonstrate an understanding of technological advances in the manufacture of fibres, fabrics and textile products
- demonstrate an awareness of career choices and opportunities in clothing and textiles

7.0 identify fibres and their properties
10.0 explore finishes and their impact on fabrics
13.0 identify career opportunities in fabric production

GCO 2 (Skills): Students will demonstrate the capability/ability to use skills, resources, and processes; and to create conditions and take actions that support individuals and family.

- propose design solutions to a range of challenges related to clothing and textiles
- apply the elements and principles of design to clothing and textile projects
- complete a project to demonstrate construction skills in fibre and/or fabric
- manage and use resources effectively, efficiently and safely to satisfy personal and family needs, values and beliefs in relation to clothing and textiles

8.0 apply knowledge of fibres to textile based selections and subsequent care
9.0 analyze methods of making fabric
14.0 apply globalization to fabric and garment production

GCO 3 (Attitudes): Students will be encouraged to evaluate knowledge, attitudes, and capabilities; monitor progress and set new learning goals as an individual and as a family member.

- evaluate their knowledge, attitudes, and capabilities related to clothing and textiles and their effect on personal development
- monitor their skill development related to clothing and textiles and their ability to work cooperatively
- identify and assess goals related to clothing and textiles

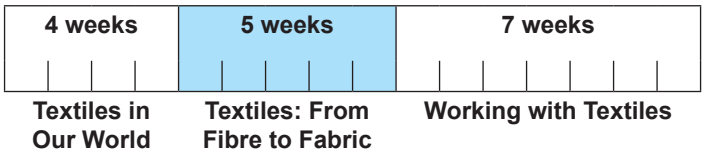
11.0 assess environmental impact of personal use, care and end of life practices for apparel and non-apparel textile based items
12.0 analyze the textile industry for environmental impact and sustainability

SCO Continuum

By Topic	Intermediate Home Economics	Textiles 3101: Unit 2
Working with Fibres, Fabrics and Finishes	3.1 To identify and explain the clothing care symbols. 3.2 To describe the procedures used for cleaning clothes.	7.0 identify fibres and their properties 8.0 apply knowledge of fibres to textile based selections and subsequent care 9.0 analyze methods of making fabric 10.0 explore finishes and their impact on fabrics
Assessing	4.1 To identify some benefits that result from acquiring sewing skills. 4.2 To construct a simple sewing project that incorporates basic sewing skills.	11.0 assess environmental impact of personal use, care and end of life practices for apparel and non-apparel textile based items 12.0 analyze the textile industry for environmental impact and sustainability 13.0 identify career opportunities in fabric production
Creating		14.0 apply globalization to fabric and garment production

Suggested Unit Plan

The delivery plan for unit 2 recommends moving from Working with Fibres, Fabrics and Finishes, to outcomes 11.0, 12.0 and 13.0 that assess various aspects of the textile industry and finishing the unit with outcome 14.0.



Working with Fibres, Fabrics and Finishes

Outcomes

Students will be expected to

7.0 identify fibres and their properties [GCO 1]

Focus for Learning

Outcome 7.0 is about natural and synthetic fibres; the building blocks of apparel and non-apparel textile based items.

Natural fibres are made from natural sources and can be classified as either cellulose fibres or protein fibres.

Synthetic Fibres are made from chemicals, organic or non-organic products and are classified as cellulosic and non-cellulosic.

Natural Fibres	
Cellulose Based Fibres	**Protein Based Fibres**
Cotton	Silk
Linen	Wool
Hemp	
Synthetic Fibres	
Cellulosic Fibres	**Non-Cellulosic Fibres**
Rayon	Nylon
Acetate	Acrylic
Triacetate	Polyester
Lyocell	

For each of the fibres, it is important for students to know the characteristics of the fibres as this will be applied to handling during construction, performance under normal use and wear, as well as during care and maintenance procedures. Outcome 8.0 will address the application of the knowledge of fibres and their characteristics.

The chart on p.162 of *the World of fashion* lists the characteristics as

- absorbency
- colourfastness
- elasticity
- hypoallergenic
- shape retention
- strength
- wrinkle resistence

The description for each of the characteristics is used to describe the degree to which the fibre will perform.

Cautionary Note: leather, fur and pelts are not included in the discussion for this outcome as they are considered to be fabrics.

Working with Fibres, Fabrics and Finishes

Sample Teaching and Assessment Strategies

Activation

Teachers may

- Ask students to think about the performance expectations they have of an article of clothing when they make a purchase.
- Ask students what comes to mind when they hear the term natural fibre or synthetic fibre. Create a graphic using the suggested words.

Students may

- Think about the degree to which they consider fibre content in a textile based product and if they apply knowledge of fibres to care, maintenance and performance expectations.

Connection

Students may

- Examine their clothing labels to determine natural or synthetic fibre content. Describe the article of clothing in terms of its care and maintenance requirements, as well as its performance. Use this information to assign characteristics to the fibres.

Consolidation

Teachers may

- Manipulate conditions that alter the description of characteristics of fibres to determine how fabric samples will perform.

Students may

- Create a chart of characteristics of natural and synthetic fibres. Indicate if the characteristic is positive or negative and the circumstance under which it is a positive or negative characteristic. Wool fibres, for example, have scale like formations. This can be a negative characteristic because it places limitations on how wool is washed and dried. Wool fibres cannot be agitated in a machine wash, subject to hot water or heat of the dryer.
- Research the origin and use of a natural or synthetic fibre. Is it associated with a geographic area, a textile product or a culture?

Extension

Teachers may

- Discuss the history of the cotton industry from a human rights perspective.

Students may

- Create, in a story board, the process of wool from farm to closet.
- Relate Traditional Ecological Knowledge (TEK) to the textile industry.

Resources and Notes

Authorized

the World of Fashion (Teacher Resource [TR])

- pp. 144-148, 201
- line master 8-1: *Mystery Fibres*
- line master 8-2: *Qiviut Yarn*

the World of Fashion (Student Resource [SR])

- pp. 162-167

Suggested

Resource Links: www.k12pl.nl.ca/curr/10-12/family-studies/textiles-3101/resource-links/unit-2-textiles-from-fibre-to-fashion.html

- textiles and artifacts
- characteristics

Working with Fibres, Fabrics and Finishes

Outcomes

Students will be expected to

8.0 apply knowledge of fibres to textile based selections and subsequent care [GCO 2]

Focus for Learning

For reference, column 2 of outcome 7.0 lists both the natural and synthetic fibers. Outcome 8.0 is intended to be an application of the learning that occured about fibres and their characteristics.

Students will be asked to draw upon this information when they make decisions about fabric that pertain to

- fabric suitability to a project,
- care and maintenance requirements, and
- expected performance.

Textiles are used in apparel and non-apparel items we use in our everyday living. Apart from the apparel industry, students were introduced, in outcome 6.0, to the variety of industries that use textiles in their products.

Some guidance is provided on the care label of apparel items that will help the consumer care for the item and get good results. The consumer does not have to know the rationale for the care guidance.

The learning from this outcome should enable students to have a competency that extends beyond adhering to basic guidance, to understanding the implications of fabric content on intended use of textile based products, and the level of care that aligns with lifestyle.

Students should be able to use the fabric content label and know how that fabric will perform under specific conditions given the composition of the fibres and their characteristics. A towel or terry cloth fabric that is composed of 100% cotton is a natural fibre, for example, that will be very absorbent of liquid. This knowledge of the characteristic of cotton fibres will influence the purchase of bathroom linens such as towels, facecloths, mats and robes. These same items are available on the market but with a mixed composition of cotton and another fibre, such as polyester. This combination results in the products being less absorbent and less satisfactory for use in absorbing liquid. The characteristic of shrinkage of cotton based fabrics may be another consideration when making textile based selections.

While care guidance is provided on ready made store bought items, knowing the characteristics of the content fibres will allow students to adjust the care procedure as/if required. As well, when working with fabric off a bolt, a care label is not supplied. It is essential to know the characteristics of the fibres and the suitability of the fibre(s) to the intended use.

Working with Fibres, Fabrics and Finishes

Sample Teaching and Assessment Strategies

Activation

Teachers may

- Give students a collection of fabrics without care labels. Using previous knowledge, have students decide the best care for each fabric. Sample fabrics may include cotton, rayon or spandex.

Students may

- Create a foldable to illustrate the appropriate care for each fabric used in the previous activation activity.

Connection

Teachers may

- Ask students for examples of a time when an apparel item was ruined in the laundering process. As a class, choose 2-3 examples and create “rewind” skits that show how the item should have been handled in the laundering process.

Students may

- Write a reflective journal about specialty clothing such as a work uniform, sport attire or prom clothing. Consider the proper care for those items for their longevity and performance.

Consolidation

Teachers may

- Invite students to think about a garment they could design or make. Then ask:
  - Would you choose to use fabric made from natural or synthetic fibres to make your garment? Explain your choice.
  - If you chose a fabric made of natural fibre(s), which natural fibre would you want to use? Explain your choice by referencing the characteristics of the fabric.
  - If you chose a fabric made of synthetic fibre(s), which one would you want to use? Explain your choice by referencing the characteristics of the fabric.

Students may

- Provide guidance on each scenario to ensure a positive outcome:
  - A store has big discounts on towels and facecloths that are a combination of cotton and polyester. Buy or don’t buy?
  - Jay has wool and acrylic sweaters that need to be washed. Jay wants to throw them in the washer together. Good Idea?
  - Dee has a busy lifestyle and chooses some new wardrobe pieces for the summer. The fabric content is cotton and rayon. Good choices for Dee?
  - Kevin is buying patio furniture. What advice can you give for items such as seat cushions and throw pillows?

Resources and Notes

Authorized

the World of Fashion (SR)

- pp. 162-167

Suggested

Resource Links: www.k12pl.nl.ca/curr/10-12/family-studies/textiles-3101/resource-links/unit-2-textiles-from-fibre-to-fashion.html

- *Guide to Apparel and Textiles Care Symbols*
- *Laundry Essentials*

Working with Fibres, Fabrics and Finishes

Outcomes

Students will be expected to

9.0 analyze methods of making fabric
[GCO 2]

Focus for Learning

In addition to having a working knowledge of natural and synthetic fibers, it is important for students to be competent in identifying methods of fabric construction and the characteristics the method contributes to the textile based item.

Yarns are used in fabric construction. Yarns are made using either staple (short) or filament (long) fibres. If the yarns are made using staple fibres, the fabric wil have a fuzzy appearance, whereas filament fibres provide a smooth, more lustrous finish.

There are four types of yarns:

- Spun: staple fibres are twisted together to make a long thread. Several of these threads may be twisted together to make a ply.
- Filament: long fibres are twisted together to make a ply.
- Blended: two or more different fibre sources are used to make a thread, then a ply.
- Textured: filament fibres undergo a process to add crimps, coils, or loops before being made into a ply.
- Ply: yarns made using two or more plies.

Once yarn is made, it can be used to make fabric. There are two main methods of fabric construction; woven and knitted. Within each method there are variations of the method that affect the characteristics of fabric.

Woven methods are

- plain,
- basket,
- twill, and
- satin.

Knitted methods are

- weft knits (jersey knit, rib knit, pile knit and double knit); and
- warp knits (tricot knit and raschel knit).

There are other methods of making fabric such as natural fabrics (fur, pelt or hide), non-woven synthetics (felt, diapers, disposable hospital gowns), bonded fabrics (vinyl, Gore-Tex®).

In choosing fabric, students should consider the following characteristics:

- hand
- weight
- lustre
- breathability
- waterproof or windproof
- wickability
- pilling

Working with Fibres, Fabrics and Finishes

Sample Teaching and Assessment Strategies

Activation

Teachers may

- Provide students with examples of fabric. Students should investigate how the fabric was put together. Microscopes may be beneficial for this activity.

Students may

- Using knitting yarn, ravel the multi ply yarn to examine the construction method. Using only one ply, pull apart the fibres to determine if the fibres are filament or staple.
- Gently pull on a cotton ball to loosen fibres. Moisten finger tips and carefully twist the loose fibres to form a long strand or thread.

Connection

Teachers may

- Show examples of close-up felted, knit and woven clothing.

Students may

- Look closely at their clothing to determine the method of making fabric that was used.
- Consider the characteristics of felted, knitted and woven fabrics and possible uses for each.

Consolidation

Teachers may

- Showcase various textile production methods such as weaving using a basic or industrial loom.

Students may

- Choose articles of their own clothing that they would classify as very strong/sturdy, delicate, and any point in between. What is it about the articles of clothing that contribute to it being placed on the continuum from strong/sturdy to fragile?

Extension

Teachers may

- Explain the terminology of weaving and looms.
- Demonstrate the construction of a cardboard loom.

Students may

- With the use of a cardboard loom demonstrate either the plain, satin, or twill weave to make a piece of fabric.

Resources and Notes

Authorized

the World of Fashion (TR)

- pp. 147-148, 156-157
- line master 8-3: *Fabric Construction*

the World of Fashion (SR)

- pp. 167-173, 180-185

Suggested

Resource Links: www.k12pl.nl.ca/curr/10-12/family-studies/textiles-3101/resource-links/unit-2-textiles-from-fibre-to-fashion.html

- upcycling

Working with Fibres, Fabrics and Finishes

Outcomes

Students will be expected to

10.0 explore finishes and their impact on fabrics [GCO 1]

Focus for Learning

Students previously examined fibres which are the source of yarns. Yarns are used to make fabric. Once fabric is made, a finish may be applied to incorporate colour or a design, add texture or improve performance. Finishes may also be applied to hides, furs and pelts.

Finishes have an impact on fabrics. The impacts can be grouped under four headings:

- Appearance: Some finishes change the look of a fabric. Examples include pattern, colour and stone wash/acid wash.
- Texture: When the feel of a fabric is altered, it is usually the result of a finish such as calendaring, stone/acid washing or brushing.
- Performance: A finish may enhance the performance of a fabric under certain conditions. Such finishes include resistance to flame, wrinkles and stains, water repellency, proofing against water, shrinkage and moths, antistatic and antibacterial.
- Cost: applying finishes to fabrics adds steps to the fabric production process and the application of some finishes may be more labor intensive than others thereby impacting the cost of the fabric.

Working with Fibres, Fabrics and Finishes

Sample Teaching and Assessment Strategies

Activation

Teachers may

- Ask students to think about a textile product (apparel or non-apparel) and an example of a finish that may have been applied to the product. Using the headings, Appearance, Texture, Performance and Cost, group student repsonses according to the desired effect of the finish.

Students may

- Examine items of clothing and determine if a finish has been applied to enhance its appearance, texture, or performance.

Connection

Teachers may

- Facilitate a discussion about finishes that are important for a specialty market such as outdoor gear.
- Use the mathematical concept of tesselations to design a pattern that could be applied to a fabric. Examine existing patterns on fabrics to determine the repeat of the pattern. How has the applied finish impacted the fabric?

Students may

- Analyze their wardrobe needs and decide which finishes are important for their lifestyle.
- High visibility is a component of work and athletic wear. Discuss how this finish can be incorporated into fabric design.

Consolidation

Teachers may

- Lead a lab experiment to test the finish(es) applied to a selection of fabrics. Compare these fabrics to similar ones without finishes, such as a dress shirt with and without a wrinkle resistant finish.

Students may

- Read pp. 174-177 in *the World of Fashion* and rank the finishes by their importance to a garment's look and function.Create a chart pairing finishes to natural and synthetic based fabrics

Extension

Students may

- Analyze their personal preferences and lifestyle to think of an innovative finish for a garment.
- Analyze the practice and cost of dying yarns to incorporate colour into fabric versus printing colour on the surface of material. What is the impact on the fabric and its cost?

Resources and Notes

Authorized

the World of Fashion (TR)

- pp. 149-150
- line master 8-5: *Exploring Fabric Finishes Station Cards*
- line master 8-6: *Exploring Fabric Finishes*

the World of Fashion (SR)

- pp. 174-177, 182-185, 188

Suggested

Resource Links: www.k12pl.nl.ca/curr/10-12/family-studies/textiles-3101/resource-links/unit-2-textiles-from-fibre-to-fashion.html

- articles from *The Textile Journal*

Assessing

Outcomes

Students will be expected to

11.0 assess environmental impact of personal use, care and end of life practices for apparel and non-apparel textile based items
[GCO 3]

Focus for Learning

Being mindful of the environment and determining potential impact of consumer behaviour on the environment is a growing part of our culture. The concepts of reducing, reusing and recycling are especially relevant for apparel and non-apparel textile based items in terms of minimizing harm to the environment. As end users of these items, there is potential to cause harm to the environment but there are ways to minimize harm to the environment.

The focus here is on consumer behaviour. As students assess environmental impacts they should consider acquisition, care regime and end of life items:

- Aapparel or non-apparel textile based items may be purchased or acquired through some other non-commercial method. Students should examine the amount of items they have, whether they buy/acquire out of want or necessity, and the degree to which this behaviour puts demands on production levels.
- Care requirements for apparel and non-apparel based textiles may have implications on the environment. A conumer's choice of domestic cleaning products may determine impact on the environment. Some cleaning agents are more harmful than others. In addition, specialty services such as dry cleaning, upholstry cleaning or use of resouces such hot water and electricity impact the environment.
- Keeping items out of landfills is a behaviour that can protect the environment. To do this, consumers must be innovative in finding new uses for things they no longer need. Donating the items to a charity or passing them on to another person to use are ways of doing this. Secondly, repurposing or upcycling is using an item in a new way and giving it more value. Turning an old shirt into strips of fabric for a mat or cutting it into squares for a quilt are ways of repurposing. End of life items require effort on the part of the consumer to resist behaviours that add to landfills and to engage in ways to protect the environment.

Assessing

Sample Teaching and Assessment Strategies

Activation

Teachers may

- Discuss the amount of clothing and footwear we have and use. Visually represent a hypothetical situation of a person's wardrobe, displaying the apparel items we use most often, occasionally and hardly at all. Identify, for example, the number of coats, pairs of footwear, and pants that make up the wardrobe.

Students may

- Reflect on what is done with clothing once they outgrow the items, the styles change, or they are in disrepair.
- Form groups of three or four to brainstorm ideas of how to recycle an old cotton t-shirt. They are only to create a plan to recycle the t-shirt and write up a list of materials they would need to carry out their plan. Once completed, present to the class.

Connection

Teachers may

- Discuss the benefits of eco-friendly laundry practices (e.g., washing in cold water, high-efficiency washing machines, and air drying).

Students may

- Compile a list of washable versus disposable products that a household uses daily. Examples include face wipes/face cloths, disposable diapers/cloth diapers, and menstrual cups/disposable pads and tampons.

Consolidation

Teachers may

- Discuss upcycling and share examples of potential ways to repurpose textile items. Make a plan to create a new item by upcycling an end of life item.

Students may

- Select different textile cleaning products and research the implications on the environment. Present their findings in a media of their choice.

Extension

Students may

- Organize a clothing drive for a charitable organization.
- Research outdoor textile based products. How can outdoor products be improved to be less harmful to the environment? Consider longevity, care and maintenance possible upcycling.

Resources and Notes

Authorized

the World of Fashion (TR)

- p.176
- ine master 10-1: *The Environmental and Social Impact of a Cotton T-Shirt*

the World of Fashion (SR)

- pp. 210-211, 227, 344-346

Suggested

Resource Links: www.k12pl.nl.ca/curr/10-12/family-studies/textiles-3101/resource-links/unit-2-textiles-from-fibre-to-fashion.html

- environmental considerations

Assessing

Outcomes

Students will be expected to

12.0 analyze the textile industry for environmental impact and sustainability [GCO 3]

Focus for Learning

Unlike the focus of outcome 11.0, this outcome concerns the textile industry and everything that happens to textiles before they reach the consumer; the processes of making fibres, yarns and fabrics, the application of finishes and how this impacts the environment.

The textile industry prepares fibres to make yarns and subsequently fabric that is ready for use by consumers (if buying fabric off a bolt) and industries such as the fashion industry may subject their products to further finishing processes.

Students should understand how a finish is integrated into the textile process and at what point(s) the environment comes into play. Adding colour to yarns or fabric is an example of a finish that interacts with the environment through water usage and disposal of water contaminated with dyes. Students should consider the variety of finishes they have previously explored that can be applied to textile products.

In terms of sustainability, students should be considering the source of materials (i.e., natural and synthetic fibres, hides, furs and pelts) for textile based products.

Students should reflect on both environmental impact and sustainability. They should delve into examples of finishes that impact appearance, texture and performance as listed in the focus for learning for outcome 10.0. To analyze the sustainability of fibres and fabrics, students should consider the mechanical processes involved, how application of finishes depend on or interact with elements of the environment and their potential impact on the environment.

Assessing

Sample Teaching and Assessment Strategies

Activation

Teachers may

- Use a video or still images to show facilities where textile products are made. The video and the images may be critiqued for evidence of impact on the environment.

Students may

- Record their thoughts regarding their understanding of the environmental impact of the textile industry. Students may revisit their journal entry at the end of the learning for this outcome.

Connection

Teachers may

- Use the following questions to lead a class discussion. At the end of the discussion, ask students to consider the degree to which they have a responsibility to incorporate sustainability and environmental impact into their textile choices.
  - Are the clothes you are wearing made from renewable or biodegradable fibres?
  - Were pesticides and fertilizers used to produce the fibres you are wearing? How do you know?
  - Were sustainable care practices used for animal based fibres? How would you know?

Students may

- Debate fabric choices that are most protective of the environment.

Consolidation

Teachers may

- Lead a discussion on Indigenous practices and Traditional Ecological Knowledge (TEK) that ensures sustainability.

Students may

- Choose a natural or synthetic fiber, hide, fur or pelt and discuss the resources required for its production in relation to environmental impact and sustainability.
- Research a controversial element of the fashion industry in relation to its environmental impact and sustainability.

Extension

Students may

- Identify a country that produces textiles and research how it demonstrates the value it places on sustainability and environmental impact.

Resources and Notes

Authorized

the World of Fashion (TR)

- pp. 167-176
- line master 10-2: *The Environmental and Social Impact of Textile Production*

the World of Fashion (SR)

- pp. 167-177, 196-212, 222, 278, 288, 346

Suggested

Resource Links: www.k12pl.nl.ca/curr/10-12/family-studies/textiles-3101/resource-links/unit-2-textiles-from-fibre-to-fashion.html

- video (Ted Talk)
- book references

Other curriculum resources

- *Newfoundland and Labrador Studies* (Teacher Resource [TR])
  - pp. 183, 208-209

Assessing

Outcomes	Focus for Learning
Students will be expected to 13.0 identify career opportunities in fabric production [GCO 1]	Students have explored the process of making fabric. They should now explore the variety of careers available at various junctures in the fabric production process. Along with woven, knitted and other methods of making fabric, include in this outcome, careers associated with the natural fabrics; hides, pelts and furs. As a refresher for students and to guide them through the range of possibilities avaible for employment, create a chart showing the sequencing of the steps involved in making fabric, beginning with fibres. Students should identify an array of jobs available at various points in the production process and the competencies required to do the work. Where possible, students are encouraged to connect related activity in the local environment to fabric production. Natural wool fibres, for example, can be sourced in Newfoundland and Labrador. If students were to follow the path of the wool fibres to fabric production, they would encounter careers such as farmers, feed specialists, animal care professionals, shearers, spinners, and weavers.

Assessing

Sample Teaching and Assessment Strategies

Activation

Teachers may

- Brainstorm a list of career opportunities in fabric production.

Students may

- Choose a career they would like to try. Determine if their traits are a match for the tasks associated with the career.

Connection

Teachers may

- Invite a local business owner involved in an aspect of the fabric production industry to present to students an overview of the business. Guidelines for the presentation could include how it supports fabric production locally/globally, the number of people and the types of jobs necessary to make the venture a success.

Consolidation

Students may

- Use a medium of their choice, such as reflective journal or story board, to depict the daily routine of a person in the fabric production industry.

Extension

Teachers may

- Discuss the occupational health and safety considerations that are associated with the fabric production industry.

Students may

- Choose a career and research the occupational health and safety guidelines. Outline their findings in a medium of their choice.
- Choose a career and research its progression over time. How have the duties, processes or equipment changed over time?

Resources and Notes

Authorized

the World of Fashion (TR)

- line master 8-2: *Quiviut Yarn*

the World of Fashion (SR)

- pp. 168, 188

Suggested

Resource Links: www.k12pl.nl.ca/curr/10-12/family-studies/textiles-3101/resource-links/unit-2-textiles-from-fibre-to-fashion.html

- video
- article

Creating

Outcomes

Students will be expected to

14.0 apply globalization to fabric and garment production [GCO 2]

Focus for Learning

The concept of globalization has shaped the textile industry as we know it. Today, more than ever, we realize how small the world really is and the competitive nature of markets providing goods and services. Materials needed to make a product can be sourced from a variety of suppliers from any part of the world and producers can source the components needed to complete a product from one or more suppliers.

In the outcomes leading up to this one, students have explored various aspects of fibres, yarns, fabrics, apparel and non-apparel textile based products.

To be able to apply the concept of globalization, students should understand the concepts of

- mass production,
- outsourcing,
- integration, and
- regulation.

Students should also integrate ethics into their application of globalization as they will be exploring countries that differ from Canada in terms of their protection of workers and efforts to protect the environment.

Creating

Sample Teaching and Assessment Strategies

Activation

Teachers may

- Determine students comprehension of the terms globalization and supply chains.

Students may

- Recall and share international news stories related to fabric and garment production.
- Examine a piece of clothing and determine the components Components may include such things as zippers, buttons, thread, fabric, and decals.

Connection

Teachers may

- Integrate labour regulations and how they differ in the developed and developing countries in the world. How does differing labor regulations impact globalization?

Students may

- Discuss mass production practices and analyze their clothing labels. Determine if their clothing was locally or mass produced.
- Research their favourite clothing label and determine if they use ethical practices in clothing production.

Consolidation

Students may

- Use the prompt “At what cost does cheap become unethical?” to write a reflective journal entry.
- Form teams to debate whether or not outsourcing has been beneficial to the fashion industry.
- Demonstarte how an event such as Heimtextil, the biggest international trade fair for home and contract textiles, is an example of how globalization is fostered in the textile industry.

Extension

Students may

- Research how international trade may impact globalization as it pertains to fabric and garment production.
- Consider a potential solution to an ethical issue of globalization and outsourcing. Create a cause and effect chain illustrating the possible repercussions of their proposed solution.

Resources and Notes

Authorized

the World of Fashion (TR)

- pp. 158-161, 277-281
- line master 9-1: *The Globalization of the Textile Industry*
- line master 9-2: *Vocabulary: Yes, Maybe, No?*

the World of Fashion (SR)

- pp. 186-194, 351-366

Suggested

Resource Links: www.k12pl.nl.ca/curr/10-12/family-studies/textiles-3101/resource-links/unit-2-textiles-from-fibre-to-fashion.html

- trade fair

Section Three:
Specific Curriculum Outcomes

Unit 3: Working with Textiles

Focus

Unit 3 focuses on working with fibres, yarns and fabrics to make a finished product, and to explore construction methods and performance of fabrics under specific conditions.

Students will examine the composition of fabrics and how they are made, and experiment with their performance.

This unit builds on Unit 2 and encourages students to use their knowledge of fabric composition and construction to analyze how fabric contributes to its performance in a finished product.

The outcomes are organized under the themes Sustainability, Properties of Fibres and Fabrics, and Mechanics of Working with Fibres and Fabrics.

Outcomes Framework

GCO 1: Students will demonstrate an understanding of issues and challenges which impact the family.

- demonstrate an understanding of how personal and social needs, values and beliefs influence clothing and textile choices
- demonstrate an understanding of the evolution of fashion and design
- demonstrate an understanding of construction principles, techniques, and tools
- demonstrate an understanding of the production and manufacture of fibres and fabrics and their use in clothing and textiles
- demonstrate an understanding of technological advances in the manufacture of fibres, fabrics and textile products
- demonstrate an awareness of career choices and opportunities in clothing and textiles

19.0 identify the tool and equipment requirements for various fabrics

GCO 2: Students will demonstrate the capability/ability to use skills, resources, and processes; and to create conditions and take actions that support individuals and family.

- propose design solutions to a range of challenges related to clothing and textiles
- apply the elements and principles of design to clothing and textile projects
- complete a project to demonstrate construction skills in fibre and/or fabric
- manage and use resources effectively, efficiently and safely to satisfy personal and family needs, values and beliefs in relation to clothing and textiles

16.0 analyze fabric suitability based on fibre content, construction and finish
17.0 experiment with care requirements for various fabrics
18.0 propose strategies to address fabric related issues in wardrobe or textile products
20.0 develop competence in making a culturally relevant clothing/textile product

GCO 3: Students will be encouraged to evaluate knowledge, attitudes, and capabilities; monitor progress; and set new learning goals as an individual and as a family member.

- evaluate their knowledge, attitudes, and capabilities related to clothing and textiles and their effect on personal development
- monitor their skill development related to clothing and textiles and their ability to work cooperatively
- identify and assess goals related to clothing and textiles

15.0 develop an awareness of local or regional sources of fibre and fabric production

SCO Continuum

Textiles 3101	
By Topic	Unit 3
Sustainability	15.0 develop an awareness of local or regional sources of fibre and fabric production
Properties of Fibres and Fabrics	16.0 analyze fabric suitability based on fibre content, construction and finish 17.0 experiment with care requirements for various fabrics 18.0 propose strategies to address fabric related issues in wardrobe or textile products
Mechanics of Working with Fibres and Fabrics	19.0 identify the tool and equipment requirements for various fabrics 20.0 develop competence in making a culturally relevant clothing/textile product

Suggested Unit Plan

The delivery plan for unit 3 recommends moving from outcome 15.0 to the Properties of Fibres and Fabrics outcomes 16.0, 17.0 and 18.0 and finishing the unit with the competencies outcomes 19.0 and 20.0. Delivering outcomes according to a cross-curricular or themed approach may also possible as there may be connections made to Newfoundland and Labrador Studies 2205 and Art and Design 2200/3200, the Fibre Arts unit.

4 weeks	5 weeks	7 weeks
Textiles in Our World	**Textiles: From Fibre to Fabric**	**Working with Textiles**

Sustainability

Outcomes	Focus for Learning
Students will be expected to 15.0 develop an awareness of local or regional sources of fibre and fabric production [GCO 3]	To appreciate the globalization of the textile industry as discussed in outcome 14.0, students are encouraged to assess their local environments for sources of fibre and fabric production. Fabric also includes natural fabrics such as hides, furs and pelts. The point of this outcome is to raise awareness about the effort being made locally or regionally to produce fibres and/or fabric. In analyzing their search results for the local and regional environment, students may have to extend the search provincially, nationally and internationally to determine proximity to a textile supply. This will connect the learning in this outcome to the concept of globalization. The investigative aspect of this outcome will encourage students to reflect on the sources of fibres and the suitability of the climate and geography to the source fibres/fabrics. Networking with community members and local organizations may help in determining the level of activity in fibre and fabric production.

Sustainability

Sample Teaching and Assessment Strategies

Activation

Teachers may

- Recall the fibre sources discussed in outcome 7.0. For each one, discuss the likelihood of the fibre being grown locally considering geography and climate.

Students may

- Generate a list of potential benefits of local fibre and fabric production.

Connection

Teachers may

- Using a map of Newfoundland and Labrador, identify areas that have a farm operation that could produce either fibres, pelts, hides or furs.

Students may

- Use the map referenced in the Connection activity to correlate the geography and climate associated with the location of each identified farm. If possible, visit a local source of fibre or fabric production.
- Consider local resources used to produce local and regional fibre and fabrics.

Consolidation

Teachers may

- Provide opportunities for reflection on local and regional Indigenous resources used for fibre and fabric production.

Students may

- Create a brochure for consumers that showcases Newfoundland and Labrador's activity with local fibres and fabrics.

Extension

Students may

- Identify the resources in their area and consider the potential for a new industry of fibre or fabric production. Create a business plan for a new business opportunity.

Resources and Notes

Authorized

the World of Fashion (Teacher Resource [TR])

- p.160

the World of Fashion (Student Resource [SR])

- p.191

Supplementary

Cultural Connections Resource Acquisition Program (RAP)

- *Emily: Song of a Newfoundland Life*
- *Phantoms of the French Shore - La Tapissierrie du French Shore*

Suggested

Resource Links: www.k12pl.nl.ca/curr/10-12/family-studies/textiles-3101/resource-links/unit-3-working-with-textiles.html

- video of a farming operation
- sample business profiles

Other curriculum resources

- *Newfoundland and Labrador Studies* (Teacher Resource [TR])
  - pp. 436-437: Case Study: The Commission of Government's Land Settlement Program
  - pp. 586-589: Artist profile: Angela Andrew - The Doll Designer

Properties of Fibres and Fabrics

Outcomes

Students will be expected to

16.0 analyze fabric suitability based on fibre content, construction and finish [GCO 2]

Focus for Learning

The skill that is central to the learning for students is being able to choose fabric suited to an intended use. This process involves articulating the details of the expected performance of the fabric and analyzing the details of potential fabrics. Fabric details that should be considered are fibre source, fibre characteristics, type of construction and applied finish, if applicable.

The foundation for this skill development has been covered in unit 2. Any analysis of fabric should consider

- fibre source(s): natural or synthetic;
- fibre characteristics: absorbency, colourfastness, elasticity, hypoallergenic, shape retention, strength, wrinkle resistence, hand, weight, lustre, breathability, waterproof or windproof, wickability, and pilling;
- method of construction: woven, knitted, felted, or bonded; and applied finishes.

Application of this knowledge is expected in this unit as students use their knowledge of fabrics to choose fabrics for an intended use. To ensure the best match of a fabric to an intended use, it is important for students to ask many questions about how the fabric will be used and the expected performance of it. Some sample questions to consider include the following:

- Is maneuverability important?
- Is it important to be absorbent or water repellent?
- Does the fabric need to flow?

A chart similar to the one below may be used to capture relevant information.

Intended Use	Expected Performance Characteristics	Possible Fabric Match
zippered tote bag	• water repellant • lightweight • strong • collapsable when not in use • able to resist fraying with strain on the zipper	• heavy grade nylon or polyester • unbleached cotton • woven construction

Properties of Fibres and Fabrics

Sample Teaching and Assessment Strategies

Activation

Students may

- Think of a textile product they currently own. What is it made of? What are the features of the fabric that contribute to its performance? What would happen if the same product was made using a different fabric?

Connection

Teachers may

- Use visuals from print and non print sources to show examples of various characteristics of fabrics.

Students may

- Plan an outfit for an event that is in accordance with the dress code for the event. For each item comprising the outfit, identify fabric characteristics that would support the expected performance of the outfit.

Consolidation

Students may

- Consider requirements for a textile based product such as fabric drape, waterproof finish, elasticity and texture. Apply knowledge of fibres, fabric construction and finishes to select the appropriate materials for their product. Use the appropriate materials to either create a textiles product or create a display using drawings and fabric swatches to demonstrate fabric suitability to the intended use.

Extension

Students may

- Consider the care requirements and possible end of life practices for their product.
- Compare and contrast the fibre and fabric of their product with a classmate(s) who constructed a similar product.
- Research a designer or a company that works to produce designs or products with carefully chosen fabrics.

Resources and Notes

Authorized

the World of Fashion (TR)

- pp. 147-150
- line master 8-4: *Pricing Fabric*

the World of Fashion (SR)

- pp. 143, 162-178

Suggested

Resource Links: www.k12pl.nl.ca/curr/10-12/family-studies/textiles-3101/resource-links/unit-3-working-with-textiles.html

- articles

Properties of Fibres and Fabrics

Outcomes	Focus for Learning
Students will be expected to 17.0 experiment with care requirements for various fabrics [GCO 2]	The approach to student learning for this outcome is a practical, hands on approach. Outcome 8.0 linked knowledge of fibres to subsequent care. Now, students will experiment with various care elements of a variety of fabrics. Note that fabrics includes hides, pelts and furs. While clothing labels outline the ideal care requirements, not always are they followed either purposefully or by accident. If the results of accidental care equate to ruining the item, then knowing the possibility of what could happen is beneficial. Likewise, purposefully not adhering to the care requirements may be an intentional design feature. Boiled wool hats and mitts are created using hot water and agitation to create thicker and warmer finished products. Normally, hot water and agitation would not be in the care regime for wool. The elements of care to be experimented with are • temperature of wash water; • hand wash, machine wash or dry clean; • cleaning agents used for washing; • temperature of drying air or machine; • temperature of ironing with or without steam; and • storage method. Students should work with both natural and synthetic based fabrics in conducting their experiments based on one or more of the elements of care named above.

Properties of Fibres and Fabrics

Sample Teaching and Assessment Strategies

Activation

Students may

- Recall an experience whereby the care of a garment caused an undesired change in its appearance, shape or fit. As a result, did it remain a useable piece? Share your experience with the class.

Connection

Teachers may

- Use an apparel item to identify the recommended care procedures for washing, drying and ironing. As a class, suggest possible alternative care procedures that will not harm the item.
- Use textile based products or pieces of fabric to demonstrate their performance under various washing and drying conditions.

Students may

- Bring in a textile product that requires stain removal and brainstorm possible methods of removing the stain. A tablecloth or placemat may be an appropriate item to examine in this activity. Record the appearance of the fabric after the stain removal procedure. How is the colour and texture in the sections that had stain removal applied?

Consolidation

Teachers may

- Facilitate lab experiments to determine the effect of detergent and stain removal agents on soiled fabric. Follow the procedures as outlined in Appendix A.

Students may

- Upon completion of the laboratory suggestions in Appendix A, record and share findings/observations with the class.

Extension

Students may

- Research care practices that are mindful of energy efficiency efforts and minimization of air, water and land pollution.

Resources and Notes

Authorized

Appendices

- Appendix A - Laboratory Experiments

the World of Fashion (SR)

- pp. 210-211

Suggested

Resource Links: www.k12pl.nl.ca/curr/10-12/family-studies/textiles-3101/resource-links/unit-3-working-with-textiles.html

- care advice for fiber source
- stain removal

Properties of Fibres and Fabrics

Outcomes

Students will be expected to

18.0 propose strategies to address fabric related issues in wardrobe or textile products [GCO 2]

Focus for Learning

Once fabrics are made into a product, apparel or non-apparel, situations may arise whereby the user will have to take action to maintain the appearance or performance of the fabric. Students should be competent in various strategies to promote the life of the product by enhancing its appearance and performance. Performance and appearance related issues that may arise are listed below as well as examples of strategies to use to help address the issue.

Performance Related

- static electricity: apply an anti-static spray, regularly use anti-static products in clothing care schedule such as fabric softener in wash cycle for air drying or dryer sheet/dryer balls to prevent static
- shape retention: avoid use of hangers, adjust care schedule
- degradation of elastic/spandex/rubber based components: avoid harsh chemicals and use of clothes dryer
- strings in hoods, waistbands and hems: secure the ends of the strings with a toggle cord lock
- stability of elastic in waistbands and wristbands: tack elastic in place to avoid rolling

Appearance Related

- pilling: remove with defuzzing tool
- snagged threads: pull to the back of the fabric and secure
- discoloration: if sun exposure related, rotate the item for even effect, re-dye the item, use a cold water wash to prevent fading
- ability to repair: the amount of fraying a fabric does will impact the ability to repair a seam or a tear in the body of the fabric
- stress points (seams, pockets, zippers, buttons and button holes): avoid overstuffing pockets if fabric resilience is an issue, undo jacket zippers and buttons when sitting

Properties of Fibres and Fabrics

Sample Teaching and Assessment Strategies

Activation

Teachers may

- Ask students to think about how it feels to experience something brand new such as an apparel item, or a non-apparel item (e.g., a blanket, new fleece sheets, or new car upholstry). Contrast this feeling with the feeling they have when the item is no longer new. Has the feeling changed? Why or not?
- If possible, show the class both old and new items with content such as elastic, rubber and spandex. Compare the items and discuss how the fabrics have performed over time. Degradation of fabrics with elastic, rubber and/or spandex is common over time.

Connection

Students may

- Think of an article of clothing they own that has a performance or appearance issue that they have had to deal with or have dealt with in the past. Name the article and the approach they use or have used to minimize the issue.

Consolidation

Teachers may

- Lead a group discussion to solve common fabric related issues in wardrobe or textile products.

Students may

- Write a reflective journal on fabric performance related issues that they should consider for future clothing purchases.
- Create a Tip Sheet to share with grade 12 students who may be in charge of caring for their apparel and non-apparel textile based items as they prepare to live independently following high school graduation.
- Use their prior knowledge of fabric characteristics to determine which fabrics are more likely to present each wardrobe issue.

Extension

Students may

- Make a dryer ball from wool roving. Research the environmental benefits of using a dryer ball to address an issue in wardrobe or textile based products.

Resources and Notes

Suggested

Resource Links: www.k12pl.nl.ca/curr/10-12/family-studies/textiles-3101/resource-links/unit-3-working-with-textiles.html

- causes of discoloration
- guide to selecting fabric
- laundry guide

Mechanics of Working with Fibres and Fabrics

Outcomes	Focus for Learning
Students will be expected to 19.0 identify the tool and equipment requirements for various fabrics [GCO 1]	Students who have already completed Clothing 1101 will have a working knowledge of general tools and equipment required to complete a textile product. If necessary, column two for outcomes 10.0 and 12.0 in Clothing 1101 may serve as a review of tools and equipment. The focus in this course is about fabrics and the specific tool/equipment requirements that will contribute to successfully working with fabrics. There are general tools/equipment that will suffice when working with most fabrics but there are special fabrics that require special tools/equipment. It is these tools and equipment that will be the focus of this outcome. There are general equipment requirements for non-specialty fabrics such as hand sewing needles, ball point machine sewing needles, scissors, seam ripper, all purpose thread, tracing wheel and tracing paper. Likewise, specialty fabrics have tool specific requirements. • furs, pelts, leather: leather awl, heavy weight thread, thimble, leather grade needles • silk: weights for cutting, silk pins, fine hand sewing needles, silk threads, walking foot for sewing machine, smaller machine needle, fabric stabilizer • knits: double needle for sewing machines, ball point needle, walking foot Note: If tools are provided for students to handle, safe use and handling are a priority.

Mechanics of Working with Fibres and Fabrics

Sample Teaching and Assessment Strategies

Activation

Teachers may

- Collect a variety of fabric samples or textile based items. Ask the class to predict the need for special tools or equipment based on the fabric.
- Prepare a selection of common tools/machinery for various types of fabric and ask students to predict their function and the fabric associated with it.

Students may

- Reflect on the necessity of safety practices when working with tools and equipment. Brainstorm injuries that could be avoided by following safety practices in a Clothing/Textiles laboratory environment.

Connection

Teachers may

- Demonstrate the safe use of common tools/machinery.

Students may

- Examine an item made from leather. What are the characteristics of leather that would necessitate special tools and or equipment in order to work with it?

Consolidation

Teachers may

- Observe students in demonstrating the use of common tools/machinery required for fabric care or construction.

Students may

- Research a YouTube video demonstrating the use of special tools and or equipment required to work with a specialty fabric. Create an informational product as a quick reference for classmates. Include the proper name of the tool(s) and its function(s).
- Research the progress of a synthetic fibre with respect to tools and production equipment.

Resources and Notes

Authorized

the World of Fashion (TR)

- pp. 114-116
- line master 6-3: *Domestic Sewing Tools*

the World of Fashion (SR)

- pp. 124-125, 130-135

Suggested

Resource Links: www.k12pl.nl.ca/curr/10-12/family-studies/textiles-3101/resource-links/unit-3-working-with-textiles.html

- sewing with knits
- working with leather

Mechanics of Working with Fibres and Fabrics

Outcomes

Students will be expected to

20.0 develop competence in making a culturally relevant clothing/textile product [GCO 2]

Focus for Learning

This outcome may be incorporated throughout the unit and it should use an experiential approach to build upon knowledge and competencies learned in this unit as well as the previous two units.

The approach taken with this outcome may be dependent on

- the availability of human resources in a geographic region to assist with a particular method of making using specialty fabrics,
- the ability to avail of other supports to introduce a method of production to the students using technology, and
- the equipment/materials needed to learn the skill.

This would be an opportunity to collaborate with community members, the arts community or other resources to increase student exposure to expertise as a means of assisting them in developing a new competence.

The project could be common to the class or based on individual interests. Once this is decided, choosing what project(s) students will complete using a particular method of making is next. Clothing 1101, outcome 13.0 provides a listing of possible methods of making and the competencies by skill level. The project should reflect the students application of their knowledge about fibres, fabrics, finishes, and suitability of such to an intended use.

Some of the production methods to consider are

- sewing (hand and machine), tailoring,quilting;
- spinning;
- knitting, crocheting, rug hooking, tatting, tufting, net-making;
- cross stitching, embroidery (hand and machine), smocking, applique, tapestry, stenciling;
- weaving (by hand or by loom); and
- leather work, hide preparation, beading.

Giving students choice in the competency of knitting, for example, may result in them choosing mitts, slippers or a dishcloth. Or, the class may make a joint project such as a quilt, or knit blanket.

Sample Performance Indicator

Create a product that is culturally relevant and/or regionally significant. Document, using a medium of one's choice, the consideration given to the fabric chosen for the project as well as the process and skill required to make the product.

Mechanics of Working with Fibres and Fabrics

Sample Teaching and Assessment Strategies

Activation

Teachers may

- Lead a discussion on what it means to be culturally relevant in a diverse and inclusive classroom.
- Show exemplars of finished products that use a variety of methods of making and demonstrate fabric suitability in each product.

Connection

Students may

- Reflect on prior learning to determine skill level, tools required and fabric knowledge to make their culturally relevant product.
- Use knowledge from Unit 2 to consider fibres, fabrics and finishes appropriate for their product.
- Choose a culturally relevant method of making that interests them. Investigate how they can become more proficient in this method either through completion of a class project or an independent study.

Consolidation

Teachers may

- Design a project checklist for students to use. The checklist should include competencies for all stages from start to finish.

Students may

- Use a step by step checklist to document the process to complete a textile product from start to finish. Highlight the choice of fabric, tools required to work successfully with the fabric and the skill level required.

Extension

Students may

- Organize an eco friendly event to allow community members to contribute clothing items that can be upcycled. The advertisement for the event may ask for specialty fabrics that may be used to make other useable items to fill a community need.

Resources and Notes

Authorized

the World of Fashion (SR)

- pp. 117-152

Suggested

Resource Links: www.k12pl.nl.ca/curr/10-12/family-studies/textiles-3101/resource-links/unit-3-working-with-textiles.html

- tips for working with fabrics

Appendix A

Laboratory Experiments

Laboratory Experiment

Fabric Maintenance: Detergents

Purpose: To examine the effects of detergents in water on fabrics

Equipment:

(2) 5 x 5cm 100% wool fabric samples

(2) 250ml beakers

10g detergent

stop watch

Procedure:

1. Fill one beaker with 200ml warm water.
2. Gently place one wool sample on the surface of the water and observe the results. Note the amount of time the sample remains afloat.
3. Repeat the procedure using a solution of 10g detergent dissolved in 200ml of warm water.

Study Questions:

1. What caused the wool fabric to stay afloat? (The specific gravity of wool is 1.30, that of water is 1.0).
2. Discuss what occurred when the detergent was added and discuss the reasons why.

*Adapted from Textile Experiments for the Home Economics Curriculum, Program Development and Implementation Branch, New Brunswick Department of Education, 1983. p.41.

Laboratory Experiment

Fabric Maintenance: Stain Removal

Purpose: To experiment with the effect of stain removal agents on various stains of natural and man-made fiber fabrics.

Equipment:

(24) 5x5cm samples of 100% cotton or rayon fabric

(24) 5x5cm samples of 100% nylon, polyester or acetate fabric

Stain remover (ie. “Spray and Wash”)

Oxygen bleach (ie. “OxiClean”)

Detergent

50ml beakers (2)

250ml beaker

Stirring rods

Paper towels

Selected staining agents (ie. grease, coffee, soft drinks, ink, berries, grass, chocolate)

Procedure:

1. Prepare the stained samples. Select one stain from each of the six groups of stains (be sure it will be visible on the fabric). Stain a sample with one staining agent, producing a stain at least 1.5cm in diameter. Put paper towels beneath the fabric and allow the stain to penetrate the fabric. Allow to stand for 15 minutes. Make an identical stain on three additional specimens; one will be used for a control and the stains will be removed from the other three. Repeat the procedure to stain the remaining samples. You will then have 24 pieces of stained fabric, with each group of 4 stained with the same substance and a total of 6 different stains representing the six groups. Use the same procedure for the second fabric sample.
2. Prepare the detergent paste by adding sufficient tap water to 20g of detergent to form a paste the consistency of white glue.
3. Prepare the oxygen bleach solution by adding 5ml of oxygen bleach to a beaker containing 200ml of 60°C tap water.
4. Expose each stain treatment to each stain removal agent using the methods described below.
   - Stain remover: lightly spray the stain from a distance of 15cm for 2 seconds.
   - Detergent paste: spread a small spoonful of the paste on the stain, rubbing gently for 5 seconds.
   - Bleach solution: allow the stained sample to soak in the solution for 10 minutes.
5. Rinse each sample in a beaker of 60°C tap water and let dry.
6. Evaluate the effectiveness of each stain removal strategy.

*Adapted from Textile Experiments for the Home Economics Curriculum, Program Development and Implementation Branch, New Brunswick Department of Education, 1983. p.42.

References

Canadian General Standards Board (CGSB) (2005) *Guide to Apparel and Textile Care Symbols.* Canada: Government of Canada

"Canadian Textiles Industry" retrieved from https://www.ic.gc.ca/eic/site/textiles-textiles.nsf/eng/home on December 2017

Government of Newfoundland and Labrador (June 2003). *Home Economics/Family Studies Education Foundation*. St.John's, NL: Queen's Printer.

UNESCO. (2004). The plurality of literacy and its implications for policies and programmes. Education Sector Position Paper. Paris, UNESCO.

University of Western Ontario. (2009). Understanding inclusive education. Retrieved April 15, 2015 from http://www.inclusiveeducationresearch.ca/about/inclusion.html

World Commission on Environment and Development. (1987). Our common future, from one earth to one world. Retrieved April 15, 2015 from http://www.un-documents.net/our-common-future.pdf

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