

BIG IDEAS

Design for the life cycle includes consideration of social and **environmental impacts**.

Personal design interests require the evaluation and refinement of skills.

Tools and technologies can be adapted for specific purposes.

Learning Standards

Curricular Competencies	Content
<p><i>Students are expected to be able to do the following:</i></p> <p>Applied Design <i>Understanding context</i></p> <ul style="list-style-type: none"> Engage in user-centred research and empathetic observation <p><i>Defining</i></p> <ul style="list-style-type: none"> Identify potential users or consumers for a chosen design opportunity Identify criteria for success, constraints, and possible unintended negative consequences <p><i>Ideating</i></p> <ul style="list-style-type: none"> Identify and apply sources of inspiration and information Take creative risks in generating ideas and add to others' ideas in ways that enhance them Screen ideas against criteria and constraints, and prioritize them for prototyping Critically evaluate the impact of competing social, ethical, economic, and sustainability considerations on the availability of textile items Work with users throughout the design process <p><i>Prototyping</i></p> <ul style="list-style-type: none"> Choose an appropriate form, scale, and level of detail for prototyping Analyze the design for the life cycle and evaluate its impacts Experiment with a variety of tools, materials, and processes to create and refine textile items 	<p><i>Students are expected to know the following:</i></p> <ul style="list-style-type: none"> simple textile designs physical and chemical properties of fabrics, including technological developments strategies for modifying patterns techniques for repurposing textile items various factors that affect the selection of textile items, including the elements and principles of design and textile functionality symbolism and use of symbols in textile prints and designs, including ethics of cultural appropriation economical and ethical factors and considerations in textile production and consumption influence of marketing and advertising on textile design, choice, and consumption design for the life cycle

Learning Standards (continued)

Curricular Competencies	Content
<p>Testing</p> <ul style="list-style-type: none"> • Identify and communicate with sources of feedback • Develop appropriate tests of the prototype • Evaluate design according to critiques and success criteria for continuing iterations of the prototype or abandoning the design idea <p>Making</p> <ul style="list-style-type: none"> • Identify appropriate tools, technologies, materials, processes, cost implications, and time needed for production • Create textile items, incorporating feedback from self, others, and prototype tests <p>Sharing</p> <ul style="list-style-type: none"> • Decide on how and with whom to share textile items • Share progress while making to gather and apply feedback • Critically reflect on their design thinking and processes, and identify new design goals • Assess their ability to work effectively, both individually and collaboratively, including their ability to share and maintain an efficient co-operative workspace • Identify and analyze new design possibilities, including how they or others might build on their concept <p>Applied Skills</p> <ul style="list-style-type: none"> • Apply safety procedures for themselves, co-workers, and users in both physical and digital environments • Identify and assess skills needed for design interests, and develop specific plans to learn or refine them over time <p>Applied Technologies</p> <ul style="list-style-type: none"> • Explore existing, new, and emerging tools, technologies, and systems to evaluate suitability for design interests • Evaluate impacts, including unintended negative consequences, of choices made about technology use • Analyze the role technologies play in societal change • Examine how cultural beliefs, values, and ethical positions affect the development and use of technologies on a national and global level 	

Big Ideas – Elaborations

- **environmental impacts:** including manufacturing process, packaging, disposal, and recycling considerations

Curricular Competencies – Elaborations

- **user-centred research:** research done directly with potential users to understand how they do things and why, their physical and emotional needs, how they think about the world, and what is meaningful to them
- **empathetic observation:** aimed at understanding the values and beliefs of other cultures and the diverse motivations and needs of different people; may be informed by experiences of people involved; traditional cultural knowledge and approaches; First Peoples worldviews, perspectives, knowledge, and practices; places, including the land and its natural resources and analogous settings; experts and thought leaders
- **constraints:** limiting factors, such as available technology, expense, resources, space, materials, time, environmental impact
- **sources of inspiration:** may include personal experiences, exploration of First Peoples perspectives and knowledge, the natural environment, places, cultural influences, social media, professionals
- **information:** for example, professionals; First Nations, Métis, or Inuit community experts; secondary sources; collective pools of knowledge in communities and collaborative atmospheres
- **Prototyping:** for example, half-scale, samples, mock-ups, toiles, croquis, technical drawings, patterns
- **impacts:** including social and environmental impacts of extraction and transportation of raw materials; manufacturing, packaging, and transportation to markets; servicing or providing replacement parts; expected usable lifetime; and reuse or recycling of component materials
- **sources of feedback:** may include peers; users; First Nations, Métis, or Inuit community experts; other experts and professionals both online and offline
- **appropriate tests:** for example, durability, washability, fit, usability
- **share:** may include showing to others or use by others, giving away, or marketing and selling
- **technologies:** tools that extend human capabilities

Content – Elaborations

- **strategies:** for example, dart manipulation, addition of closures, deconstruction, addition of collars
- **repurposing:** changing the original use of an item, such as upcycling; for example, repurposed items may include traditional cultural dress, uniforms, household items (e.g., carpeting and curtains)
- **cultural appropriation:** using or sharing a cultural motif, theme, “voice,” image, knowledge, story, or practice without permission, without appropriate context, or in a way that may misrepresent the real experience of the people from whose culture it is drawn
- **factors and considerations:** for example:
 - fast fashion, sweatshops, ethical consumerism
 - promotion of trends
 - runway shows, retailing, print media, social media, displays, trunk shows
 - representation of gender and age
- **marketing and advertising:** social media for product promotion, fashion magazines, fashion blogs, reality television shows, advertising techniques such as product placement
- **design for the life cycle:** taking into account economic costs, and social and environmental impacts of the product, from the extraction of raw materials to eventual reuse or recycling of component materials