Area of Learning: APPLIED DESIGN, SKILLS, AND TECHNOLOGIES — E-Commerce

Grade 12

BIG IDEAS

Ethical marketing contributes to a healthier global marketplace.
Business creates opportunities to enable change.
Different technologies and tools are required at different stages of the design process.

Learning Standards

### Curricular Competencies

**Students are expected to be able to do the following:**

**Applied Design**

- **Understanding context**
  - Conduct research to understand design opportunities and barriers

- **Defining**
  - Establish a point of view for a chosen design opportunity
  - Identify potential users, intended impact, and possible unintended negative consequences
  - Make decisions about premises and constraints that define the design space

- **Ideating**
  - Identify gaps to explore as opportunities
  - Take creative risks to generate ideas and add to others’ ideas to create a range of possibilities
  - Critically analyze how competing social, ethical, and sustainability factors impact designed solutions to meet global needs for preferred futures
  - Prioritize ideas for prototyping and designing with users

- **Prototyping**
  - Identify, critique, and use a variety of sources of inspiration and information
  - Choose an appropriate form and level of detail for prototyping
  - Plan procedures for prototyping multiple ideas
  - Analyze the design for the life cycle
  - Construct prototypes, making changes to tools, materials, and procedures as needed
  - Record iterations of prototyping

### Content

**Students are expected to know the following:**

- entrepreneurship opportunities
- creative ways to add value to an existing idea or product
- the evolution and nature of e-commerce
- local and global retail e-commerce environments
- the economics of e-commerce
- revenue models
- development and evolution of the digital retail environment
- cyber marketing concepts and strategies
- ethical marketing strategies
- distribution channels for digital businesses
- digitally procured goods and services
- digital and cloud-based technologies
- interpersonal and presentation skills to promote products or services and to interact with potential customers/clients
- industry best practices
- emerging career options and opportunities in the digital sector and for young entrepreneurs
- ethics of cultural appropriation and plagiarism
### Learning Standards (continued)

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<thead>
<tr>
<th>Curricular Competencies</th>
<th>Content</th>
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<tbody>
<tr>
<td><strong>Testing</strong></td>
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<tr>
<td>• Obtain and evaluate critical feedback from multiple sources, both initially and over time</td>
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<td>• Develop an appropriate test of the prototype</td>
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<td>• Based on feedback received and evaluated, make changes to product design or processes as needed</td>
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<td>• Iterate the prototype or abandon the design idea</td>
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<td><strong>Making</strong></td>
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<tr>
<td>• Identify tools, technologies, materials, processes, and time needed for development and implementation</td>
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<tr>
<td>• Use project management processes when working individually or collaboratively to create processes or products</td>
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<td>• Share progress to increase opportunities for feedback, collaboration, and, if applicable, marketing</td>
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<tr>
<td><strong>Sharing</strong></td>
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<td>• Decide on how and with whom to share or promote their product, their creativity, and, if applicable, their intellectual property</td>
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<td>• Critically reflect on their design thinking and processes, and identify new design goals, including how they or others might build on their concept</td>
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<td>• Critically evaluate their ability to work effectively, both individually and collaboratively</td>
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**Applied Skills**

- Evaluate safety issues for themselves, co-workers, and users in both physical and digital environments
- Identify and critically assess skills needed related to the project(s) or design interests, and develop specific plans to learn or refine skills over time
- Evaluate and apply a framework for solving problems and making decisions

**Applied Technologies**

- Explore existing, new, and emerging tools, technologies, and systems and evaluate their suitability for design interests
- Evaluate impacts, including unintended negative consequences, of choices made about technology use
- Analyze the role and personal, interpersonal, social, and environmental impacts of technologies in societal change
- Examine and analyze how cultural beliefs, values, and ethical positions affect the development and use of technologies on a national and global level
Big Ideas – Elaborations

- **Ethical marketing**: for example, socially responsible and culturally sensitive
- **technologies**: tools that extend human capabilities

Curricular Competencies – Elaborations

- **research**: research done directly with users of the digital market 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
- **Defining**: setting parameters
- **constraints**: limiting factors, such as available technologies, expense, environmental impact, cultural appropriation, and knowledge that is considered sacred
- **Ideating**: forming ideas or concepts
- **social, ethical, and sustainability factors**: for example, the increasing use of packaging materials and shipping and transport methods due to the increase in online shopping
- **designing with users**: working with users at all stages of the design process
- **sources of inspiration**: may include aesthetic experiences; First Peoples perspectives and knowledge; the natural environment and places, including the land, its natural resources, and analogous settings; people, including users, experts, and thought leaders
- **information**: may include media-design professionals; First Nations, Métis, or Inuit community experts; secondary sources; collective pools of knowledge in communities and collaborative atmospheres both online and offline
- **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
- **iterations**: repetitions of a process with the aim of approaching a desired result
- **sources**: may include peers; users; First Nations, Métis, or Inuit community experts; other experts and professionals both online and offline
- **appropriate test**: includes evaluating the degree of authenticity required for the setting of the test, deciding on an appropriate type and number of trials, and collecting and compiling data
- **project management processes**: setting goals, planning, organizing, constructing, monitoring, and leading during execution
- **Share**: may include showing to others or use by others, giving away, or marketing and selling
- **product**: for example, a physical product, process, system, service, designed environment
- **intellectual property**: creations of the intellect such as works of art, inventions, discoveries, design ideas to which one has the legal rights of ownership
- **safety issues**: for example, viruses, phishing, privacy (digital); ergonomics, lifting, repetitive stress injuries (physical)
- **framework**: for example, generic multi-step problem-solving processes, established multi-step problem-solving business frameworks
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| **APPLIED DESIGN, SKILLS, AND TECHNOLOGIES – E-Commerce  
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<tr>
<td><strong>economics of e-commerce</strong>: for example, competition, supply and demand</td>
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<td><strong>revenue models</strong>: methods for generating revenue and managing costs</td>
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<td><strong>digital retail environment</strong>: for example, websites and mobile apps</td>
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<td><strong>cyber marketing</strong>: for example, social media, viral marketing, directing traffic to websites and apps, advertising for e-commerce</td>
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<td><strong>distribution channels</strong>: cost-effective ways to get a final good or service to consumers</td>
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<td><strong>interpersonal and presentation skills</strong>: for example, professional communications, collaboration, follow-ups, and courtesies; technological or visual supports to accompany marketing or demonstrations at meetings and conferences; social media and networking</td>
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<td><strong>cultural appropriation</strong>: use of a cultural motif, theme, “voice,” image, knowledge, story, song, or drama, shared without permission or without appropriate context or in a way that may misrepresent the real experience of the people from whose culture it is drawn</td>
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