

# In-Class Challenges!

## Curriculum & Skills for Success

[Skills for Success](#) are a major component of all Skills SK events. Refer to this link on our website for a full description.

The in-class challenges align well with our [Saskatchewan Curriculum](#). See how each challenge/kit fits into your curriculum.

This document was Last Updated October 2021  
Please refer to the curriculum link for current & full curriculum information.

1. [Aerospace Technology – Delta Dart Challenge](#)
2. [Carpentry – Model Cabin Construction Kit](#)
3. [Construction – Build Your Own Birdhouse Kit](#)
4. [Esthetics – Nail Art Design](#)
5. [Indigenous Beading Kits](#)



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[Classroom Resources](#)

### Aerospace Technology – Delta Dart Challenge

**Objectives and Modules:** Construction and Carpentry 10,20,30 (SK Curriculum)

#### **Module 6: Measuring and Layout (Core)**

**Outcome:** Demonstrate proficiency and accuracy when measuring materials.

**Indicators:**

- a. Demonstrate accurate measurement to 1/16" with a pocket tape measure

#### **Module 10: Fasteners and Adhesives (Core)**

**Outcome:** Develop proficiency in using fasteners and adhesives effectively

**Indicators:**

- d. Identify some common glues and mastics to determine the appropriate product for a given task.

#### **Module 11A: Wood Project (Optional)**

**Outcome:** Demonstrate basic woodworking skills to complete a simple project.

**Indicators:**

- a. Identify the needed tools, skills, timelines, and safety practices associated with a given project.
- b. Transpose measurements from a plan to material.
- c. Cut lumber and/or sheet material.



- d. Demonstrate safe and efficient use of required tools.
- e. Assemble using the appropriate joinery and/or fasteners.
- f. Apply a finish to the project (if required).

**Skills for Success:** Reading, Writing, Problem Solving, Communication, Collaboration, Creativity and Innovation, and Adaptability.

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### **Carpentry - Model Cabin Construction Kit**

**Objectives and Modules:** Construction and Carpentry 10, 20, 30 (SK Curriculum)

#### **Module 6: Measuring and Layout (Core)**

**Outcome:** Demonstrate proficiency and accuracy when measuring materials.

**Indicators:**

- a. Demonstrate accurate measurement to 1/16" with a pocket tape measure

#### **Module 10: Fasteners and Adhesives (Core)**

**Outcome:** Develop proficiency in using fasteners and adhesives effectively

**Indicators:**

- d. Identify some common glues and mastics to determine the appropriate product for a given task.

#### **Module 11A: Wood Project (Optional)**

**Outcome:** Demonstrate basic woodworking skills to complete a simple project.

**Indicators:**

- a. Identify the needed tools, skills, timelines, and safety practices associated with a given project.
- b. Transpose measurements from a plan to material.
- c. Cut lumber and/or sheet material.
- d. Demonstrate safe and efficient use of required tools.
- e. Assemble using the appropriate joinery and/or fasteners.
- f. Apply a finish to the project (if required).

#### **Module 13: Career Opportunities (Core)**

**Outcome:** Explore and evaluate the career development and occupation opportunities in the field of construction and carpentry in Saskatchewan, Canada, and globally, including postsecondary education programs.

**Indicators:**

- a. Identify specific examples of occupational skills and occupations required in the construction trades.
- b. Investigate programs offered by the Saskatchewan Apprenticeship and Trade Certification Commission and technical institutes in carpentry.
- c. Investigate job opportunities in the construction trades.

#### **Module 17: Wall Framing (Core)**

**Outcome:** Demonstrate the procedures for framing and sheathing walls in residential construction.

**Indicators:**

- c. Demonstrate how to raise a wall to plumb and square including installation of temporary bracing.
- d. Demonstrate the correct method of applying exterior sheathing.

### Module 19: Roofing Materials and Installation (Optional)

**Outcome:** Demonstrate an understanding of a number of materials and practices as applied to the roofing of residential buildings.

**Indicators:**

- **b.** Demonstrate an understanding of the correct method of applying shingles to a roof. **(we will be using popsicle sticks).**
- **c.** Investigate and describe the advantages and disadvantages of various roofing materials such as asphalt, rolled roofing, wood shingle and shakes, metal, and tiles.

### Module 21: Exterior Finishing (Optional)

**Outcome:** Understand the purpose and application of exterior finish to a residential building.

**Indicators:**

- **b.** Investigate common types of exterior finishes (e.g., vinyl, stucco, wood siding) and explain their relative advantages.
- **c.** Demonstrate the procedures to install siding including starting, corners, buildouts, and openings. **(we will be using popsicle sticks).**

### Module 88: Apprenticeship in Saskatchewan (Optional)

**Outcome:** Investigate the apprenticeship and trade certification process and the role of the Saskatchewan Apprenticeship and Trade Certification Commission (SATCC), opportunities that apprenticeship offers, and the relationship between secondary level courses and apprenticeship training.

**Indicators:**

- **a.** Research and define what apprenticeship means, and describe some of the benefits such as lifestyle, satisfaction, opportunities, wages, and respect.
- **c.** Determine the steps involved in becoming an apprentice from the perspective of the specific trade, including length of apprenticeship, annual training requirements, and Red Seal certification.
- **d.** Develop an understanding of available programs to help transition from secondary school to apprenticeship. **e.** Conduct research such as interviewing employers to identify the qualities of a successful apprentice.

**Skills for Success:** Reading, Problem Solving, Communication, Collaboration, Creativity and Innovation, Adaptability, and Numeracy. [Return to menu.](#)



### Construction – Build Your Own Birdhouse Kit

**Objectives and Modules:** Construction and Carpentry 10, 20, 30 (SK Curriculum)

#### Module 10: Fasteners and Adhesives (Core)

**Outcome:** Develop proficiency in using fasteners and adhesives effectively.

**Indicators:**

- **c.** Identify a number of connectors and hangers to determine the appropriate one for the given task.
- **d.** Identify some common glues and mastics to determine the appropriate product for a given task.

#### Module 11A: Wood Project (Optional)

**Outcome:** Demonstrate basic woodworking skills to complete a simple project.

**Indicators:**

- **a.** Identify the needed tools, skills, timelines, and safety practices associated with a given project.
- **b.** Transpose measurements from a plan to material.
- **c.** Cut lumber and/or sheet material.

- d. Demonstrate safe and efficient use of required tools.
- e. Assemble using the appropriate joinery and/or fasteners.
- f. Apply a finish to the project (if required)

**Skills for Success:** Reading, Writing, Problem Solving, Communication, Collaboration, Creativity and Innovation, and Adaptability. [Return to menu.](#)

### **Esthetics – Nail Art Design**

**Objectives and Modules:** Esthetics 10, 20, 30 (SK Curriculum)

#### **Module 3A, B, C, D, E: Sanitation, Disinfection and Sterilization (Core)**

**Outcome:** Justify the importance of proper sanitation, disinfection and sterilization.

**Indicators:**

- a. Define the terms sanitation, disinfection and sterilization
- g. Discuss the different levels of disinfection (i.e., high, intermediate and low level) and describe situations when each level is appropriate.

#### **Module 6: Scope of Practice (Core)**

**Outcome:** Examine scope of practice within hairstyling and esthetics.

**Indicators:**

- b. Identify esthetician services such as massage, skin care, nail enhancements and make up.

#### **Module 8A: Elements of Design (Core)**

**Outcome:** Examine elements of art and principles of design in hairstyling and esthetics.

**Indicators:**

- a. Describe the elements of art (i.e., colour, form, line, shape, space, texture, tone, value).
- b. Describe the principles of design (i.e., balance, contrast and variety, movement and rhythm, pattern, harmony and unity, emphasis, proportion and scale).
- c. Discuss how the elements of art and principles of design apply to artistic expression within the context of hair and esthetics.

#### **Module 8C: Elements of Design (Esthetics) (Core)**

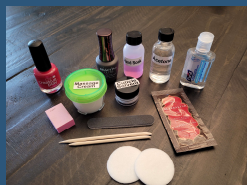
**Outcome:** Initiate and develop ideas for artistic expression, within the context of esthetics, that incorporate the elements of art and principles of design.

**Indicators:**

- c. Implement elements of art and principles of design into the esthetic creation process
- e. Critique artistic examples of esthetics (e.g., what are you seeing, why are you drawn to it or why was it a successful artistic expression).
- f. Use colour theory principles and tools to customize esthetic services to meet individual needs (e.g., warm cool colours, complementary colours, monochromatic analogous and triadic colour schemes).

**Skills for Success:** Reading, Writing, Communication, Collaboration, and Creativity and Innovation.

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## **Indigenous Skill - Beading**

**Objectives and Modules:** Clothing, Textiles, and Fashion 10, 30 Curriculum Guide A Practical and Applied Art.

### **Module 5: Design Fundamentals - A Wearable Art**

#### **Foundational Objectives**

- To provide a broad foundation of clothing design fundamentals and apply the fundamentals to projects to meet individual needs

#### **Learning Objectives**

**5.8** To increase knowledge in the selection of colours that are becoming for an individual. (COM, PSVS)

- Choose clothes in colours that flatter a person's hair, eyes, and skin tones and analyze why they appear becoming.
- Create illusions based on personal colouring, body shape, and personality.
- Colour coding is one way to categorize an individual and his or her becoming colours. One colour coding method is based on the seasons and their palette. Do personal colour coding with the students.

### **Module 11: Textile Applications (Optional)**

**Objective:** To recognize that clothing, fashion, and textile items evolve from culture and reflect the economic, political, and social conditions of the times.

#### **Common Essential Learnings Foundational Objectives**

- To support students in coming to a better understanding of the personal, moral, social, and cultural aspects of their expression of fashion.

#### **Learning objective**

**11.3** To increase awareness of a variety of fiber crafts that can be used to create apparel or an accessory through the use of samples and demonstration, introduce a number of fiber crafts: • needlepoint

**11.7** To explore entrepreneurial opportunities. (NUM)

- Have students make their projects into kits. Write instruction sheets to be included in the kits. Determine the selling price.
- Have students sell their projects within the school or community

### **Module 12: Language of Fashion (Optional)**

#### **Foundational Objectives**

- To recognize that clothing, fashion, and textile items evolve from culture and reflect the economic, political, and social conditions of the times.
- To create an awareness of the careers and opportunities in the fields of clothing, textiles, and fashion industries that exist in Canada.

#### **Learning Objectives**

**12.2** To observe that fashion is an evolutionary process that is affected by social, economic, and political influences.

Every new style is an adaptation or an extension of a previous style. For this reason, clothing is studied from a historical viewpoint. Use a Costume History Time Line when presenting the social, economic, and political influences that have had an effect on men's and women's fashion over the years: • First Nations

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