



## Cardinal Leger Secondary School Construction Technology



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**Course Name:** Exploring Construction Technology

**Course Code:** TCJ10

**Level:** Grade 9, Open

**Teacher:** Mr. Costigan

**Room:** 127

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### **Course Overview:**

This course enables students to further explore and develop technological knowledge and skills introduced in the elementary science and technology program. Students will be given the opportunity to design and create products and/or provide services related to the various technological areas or industries, working with a variety of tools, equipment, and software commonly used in industry. Students will develop an awareness of environmental and societal issues, and will begin to explore secondary and postsecondary education and training pathways leading to careers in technology-related fields.

Most of the learning will be project based (Hands on) therefore to be successful good attendance is extremely important.

### **Curriculum Strands and Overall Expectations:**

#### **Strands**

*Theory and foundation:* The key ideas about concepts, components and systems, materials, services, and products.

*Skills and processes:* The technological skills and processes required for responding to a variety of practical challenges.

*Impact and consequences:* Safety-related issues, career opportunities, and the implications of technology.

#### **Overall Expectations**

By the end of this course, students will:

- communicate ideas and solutions to technological problems through a variety of media;
- describe the qualities, characteristics, and uses of different types of building materials;
- use technological concepts correctly in the design, fabrication, and evaluation of projects;
- identify the importance of support systems as an integral part of the construction.



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### Evaluation:

Students in this course will be evaluated on the knowledge, skills, and values they display throughout the course. This will be done on a **daily basis**, and it makes good attendance essential to achieving a passing grade. Students who are often absent, will be unable to receive marks for their daily practical work, and therefore will fall behind. Students will be assessed daily in such areas as safety, behaviour, preparedness, attitude, as well as student growth in the subject area.

<b>Term Work</b>	<b>70%</b>
Knowledge and Understanding	25%
Thinking	20%
Communication	20%
Application	35%
<b>Final Assessment</b>	<b>30%</b>
Culminating Task	30%
<b>Course Total</b>	<b>100%</b>

### Learning Skills and Work Habits

E= Excellent G=Good S=Satisfactory N= Needs Improvement

Responsibility	<ul style="list-style-type: none"> <li>Fulfills responsibility and commitments.</li> <li>Takes responsibility for and manages own behavior.</li> </ul>
Organization	<ul style="list-style-type: none"> <li>Devises and follows a plan and process for completing tasks.</li> <li>Establishes priorities and manages time</li> </ul>
Independent Work	<ul style="list-style-type: none"> <li>Independently monitors, assesses, and revises plans to complete tasks and meet goals.</li> <li>Uses class time to complete tasks.</li> </ul>
Collaboration	<ul style="list-style-type: none"> <li>Accepts various roles and an equitable share of work in a group.</li> <li>Builds healthy peer-to-peer relationships.</li> </ul>
Initiative	<ul style="list-style-type: none"> <li>Looks for and acts on new ideas and opportunities.</li> <li>Approaches new tasks with a positive attitude.</li> </ul>
Self-Regulation	<ul style="list-style-type: none"> <li>Sets own goals and monitors progress towards achieving them.</li> <li>Seeks clarification or assistance when needed.</li> </ul>

### Missed/Late/Incomplete Assignments

It is the student's responsibility to address missed, late, or incomplete assignments. Students are expected to complete assignments and to adhere to assignment deadlines as follows:

Due Date	10% Penalty Zone	Closure Date
A due date is set by the teacher.	1 school day late – 3% 2 school days late – 6% 3 school days late – 10% Maximum penalty of 10%	Once the closure date has passed, work is considered incomplete and a <b>mark of zero</b> applies.



# Cardinal Leger Secondary School Construction Technology



## Course of Study

<p><b>Week</b> 1</p> <p>Welcome! School/Classroom/Shop</p> <ul style="list-style-type: none"> <li>rules</li> <li>policies</li> <li>procedures</li> <li>expectations</li> </ul> <p>Measurement Skills</p> <ul style="list-style-type: none"> <li>measurement, imperial and metric</li> <li>convert fractions to decimals and vice versa</li> <li>relevant concepts and formulas (e.g., areas, angles, quantities)</li> </ul> <p>Measurement Quiz</p>	<p><b>Week</b> 7</p> <p>Combination Sander Safety Quiz Band Saw Safety Quiz Fabrication and Assembly</p> <ul style="list-style-type: none"> <li>specifications, efficient sequence and quality control</li> <li>joints and fasteners</li> </ul> <p><b>SHOP TIME!!!</b></p>	<p><b>Week</b> 13</p> <p>Blueprint Reading Review <b>SHOP TIME!!!</b></p>
<p>2</p> <p>Technical Drawings</p> <ul style="list-style-type: none"> <li>tools</li> <li>practice exercises</li> <li>sketching</li> <li>drawing conventions</li> <li>blueprint reading</li> </ul>	<p>8</p> <p>Finishing</p> <ul style="list-style-type: none"> <li>surface preparation (sanding)</li> <li>finish application (e.g. varnish, paint)</li> </ul> <p>Palm Sander Safety/Demo <b>SHOP TIME!!!</b></p>	<p>14</p> <p><i>Summative Project – “Gumball Machine or Shelf”</i> Lumber lamination / Solid Wood Panels Reading Assignment # 3 – “Edge Gluing Boards” Gluing and Camping <b>SHOP TIME!!!</b></p>
<p>3</p> <p>Technical Drawing</p> <ul style="list-style-type: none"> <li>practice exercises</li> </ul> <p>Drawing Quiz Shop orientation <i>Intro - Scroll Saw Project</i> Scroll Saw Safety/Demo Drill Press Safety/Demo <b>SHOP TIME!!!</b></p>	<p>9</p> <p>Hand Tools Safety/Purpose/Demo Technical Drawing</p> <ul style="list-style-type: none"> <li>dimensioning</li> </ul> <p><i>Project “Book Stand” due!</i> <i>Intro – Picture Frame Project</i> <b>SHOP TIME!!!</b></p>	<p>15</p> <p>Review of Hand Tools <b>SHOP TIME!!!</b></p>
<p>4</p> <p>Scroll Saw Safety Quiz Drill Press Safety Quiz Design and Problem Solving Dressing Stock Radial Arm Saw Safety/Demo Jointer Safety/Demo <b>SHOP TIME!!!</b></p>	<p>10</p> <p>Material Layout</p> <ul style="list-style-type: none"> <li>tools/methods</li> </ul> <p>Measurement Review Jigs and Fixtures <b>SHOP TIME!!!</b></p>	<p>16</p> <p>Technology and Society</p> <ul style="list-style-type: none"> <li>research assignment</li> </ul> <p><b>SHOP TIME!!!</b></p>
<p>5</p> <p>Radial Arm Saw Safety Quiz Jointer Safety Quiz <i>Scroll Saw Project Due!</i> <i>Intro - Book Stand Project</i> Planer Safety/Demo Mitre Saw Safety/Demo <b>SHOP TIME!!!</b></p>	<p>11</p> <p>Table Router Safety/Demo Hand Held Router Safety/Demo Wood as a Material</p> <ul style="list-style-type: none"> <li>types &amp; purpose</li> </ul> <p><b>SHOP TIME!!!</b></p>	<p>17</p> <p>Health and Safety</p> <ul style="list-style-type: none"> <li>workplace</li> </ul> <p><i>Summative Project “Gumball Machine or Shelf” due!</i> <b>SHOP TIME!!!</b></p>
<p>6</p> <p>Mitre Saw Safety Quiz Band Saw Safety/Demo Project Planning</p> <ul style="list-style-type: none"> <li>Bill of Materials</li> <li>Order of Operations</li> </ul> <p>Technical Skills</p> <ul style="list-style-type: none"> <li>identify, select, and use tools, equipment and techniques in a correct, efficient, and safe manner to prepare project materials</li> </ul> <p>Combination Sander Safety/Demo <b>SHOP TIME!!!</b></p>	<p>12</p> <p>Router Safety Quiz Wood Lathe Safety/Demo Wood Lathe Quiz Technology and the Environment</p> <ul style="list-style-type: none"> <li>a look at logging in Canada</li> </ul> <p><b>SHOP TIME!!!</b></p>	<p>18</p> <p><b>SHOP TIME!!!</b> Shop clean up!</p>

Parent Signature: \_\_\_\_\_ Student Signature: \_\_\_\_\_