

## COURSE OUTLINE – MYP YEAR 5 DESIGN: WOODWORKING 10



### Course Overview:

Students solve a design problem by building an article of living room furniture that integrates concepts of balanced form and function. Students gain hands-on experience using advanced woodworking machinery and traditional hand tools. Students consider the role of individual and community on consumer choices, as well as the impact of manufacturing on economy and environment.

### Learning:

#### Through engaging with this course, students should UNDERSTAND...

Design can be responsive to identified needs.



Complex tasks require the acquisition of additional skills.



Complex tasks may require multiple tools and technologies.



#### Through engaging with this course, students will KNOW...

| Statement of Inquiry  | Concepts  | Unit Title/Topic             |
|---|---|------------------------------|
| <p>A good marketable product allows individual and communities to express themselves through form while meeting their functional needs.</p> | <p>Communities<br/>Form<br/>Function<br/>Markets and trends</p> | <p>Living Room Furniture</p> |

## Through engaging with this course, students will DO...

| CURRICULAR COMPETENCIES CATEGORIES | EXAMPLES (Selected from Curricular Competencies)   |
|------------------------------------|--|
| Understanding context              | - Find issues and uncover needs and potential design opportunities   |
| Defining                           | - Identify key features or potential users and their needs<br>- Identify criteria for good design projects and potential limitations   |
| Ideating                           | - Generate potential ideas and add to others' ideas  |
| Prototyping                        | - Develop a plan that identifies key stages of machining and resources needed  |
| Testing                            | - Evaluate and make changes where necessary to improve the project   |
| Making                             | - Identify and use appropriate tools, technologies, and materials for production<br>- Make a plan for production that includes key stages, and carry it out, making changes as needed<br>- Use materials in ways that minimize waste |
| Sharing                            | - Demonstrate their product and describe their process, using appropriate terminology and providing reasons for their selected solution and modifications  |

## Through this course, students will develop the following Approaches to Learning skills...

Below are some examples of how we develop ATL skills in Design:

| ATL Skill Category     | Examples of Skills   |
|------------------------|--|
| Thinking skills        | Interpret data gathered from scientific and general informational sources  |
| Social skills          | Practice giving feedback on the design developments  |
| Communication skills   | Use appropriate verbal, written, and visual communication based on purpose and audience                                      |
| Self-management skills | Maintain good self-motivation and incorporate good time management and planning skills                                       |
| Research skills        | Make connections between research and related moral, ethical, social, economic, political, cultural or environmental factors |

## Assessment:

### Throughout this course, students will demonstrate their learning...

| The MYP Design course will focus on developing skills related to 4 criteria based objectives. | Formative assessment is assessment <i>as</i> learning, or assessment <i>for</i> learning.<br><b>Formative assessments could include;</b> | Summative assessment is assessment <i>of</i> learning.<br><b>Summative assessments could include;</b> |
|---|--|---|
| <b>A: Inquiring and Analyzing</b>   | Incorporating developments from existing projects for inspiration  | Presenting research and analysis of already existing products   |
| <b>B: Developing Ideas</b>  | Communicating ideas through drawing and sketching  | Completing precision design drawings with dimensioning  |
| <b>C: Creating the Solution</b>   | Developing skills with hand tools and machinery  | Completing high quality final products using hand tools and machines                                  |
| <b>D: Evaluating</b>  | Ongoing evaluating and improving of projects   | Presenting evidence of evaluating and improving of projects through its various iterations            |

## Assessment Rubrics:

### Grade 10

#### Criterion A: Inquiring and analysing

| Achievement level | Level descriptor  |
|-------------------|---|
| 0                 | The student does not reach a standard described by any of the descriptors below.  |
| 1-2               | The student: <ul style="list-style-type: none"> <li>• <b>states</b> the need for a solution to a problem for a specified client/target audience</li> <li>• <b>develops</b> a basic design brief, which <b>states</b> the <b>findings</b> of relevant research.</li> </ul>   |
| 3-4               | <ul style="list-style-type: none"> <li>• <b>outlines</b> the need for a solution to a problem for a specified client/target audience</li> <li>• <b>outlines</b> a research plan, which <b>identifies</b> primary and secondary research needed to <b>develop</b> a solution to the problem, <b>with some guidance</b></li> <li>• <b>analyses one</b> existing product that inspires a solution to the problem</li> <li>• <b>develops</b> a design brief, which <b>outlines</b> the analysis of relevant research.</li> </ul>  |
| 5-6               | <ul style="list-style-type: none"> <li>• <b>explains</b> the need for a solution to a problem for a specified client/target audience</li> <li>• <b>constructs</b> a research plan, which <b>identifies</b> and <b>prioritizes</b> primary and secondary research needed to <b>develop</b> a solution to the problem, <b>with some guidance</b></li> <li>• <b>analyses a range of</b> existing products that inspire a solution to the problem</li> <li>• <b>develops</b> a design brief, which <b>explains</b> the analysis of relevant research.</li> </ul>  |
| 7-8               | <ul style="list-style-type: none"> <li>• <b>explains</b> and <b>justifies</b> the need for a solution to a problem for a client/ target audience</li> <li>• <b>constructs</b> a <b>detailed</b> research plan, which <b>identifies</b> and <b>prioritizes</b> the primary and secondary research needed to <b>develop</b> a solution to the problem independently</li> <li>• <b>analyses a range of</b> existing products that inspire a solution to the problem in detail</li> <li>• <b>develops</b> a <b>detailed</b> design brief, which <b>summarizes</b> the analysis of relevant research.</li> </ul> |

#### Criterion B: Developing ideas

| Achievement level | Level descriptor   |
|-------------------|--|
| 0                 | The student does not reach a standard described by any of the descriptors below.   |
| 1-2               | The student: <ul style="list-style-type: none"> <li>• <b>lists some basic</b> design specifications for the design of a solution</li> <li>• <b>presents one</b> design, which can be interpreted by others</li> <li>• <b>creates</b> incomplete planning drawings/diagrams.</li> </ul>   |
| 3-4               | <ul style="list-style-type: none"> <li>• <b>lists some</b> design specifications, which relate to the success criteria for the design of a solution</li> <li>• <b>presents a few</b> feasible designs, using an appropriate medium(s) <b>or</b> annotation, which can be interpreted by others</li> <li>• <b>justifies</b> the selection of the chosen design with reference to the design specification</li> <li>• <b>creates</b> planning drawings/diagrams <b>or lists</b> requirements for the creation of the chosen solution.</li> </ul>   |
| 5-6               | <ul style="list-style-type: none"> <li>• <b>develops</b> design specifications, which <b>outline</b> the success criteria for the design of a solution</li> <li>• <b>develops a range of</b> feasible design ideas, using an appropriate medium(s) <b>and</b> annotation, which can be interpreted by others</li> <li>• <b>presents</b> the chosen design and <b>justifies</b> its selection with reference to the design specification</li> <li>• <b>develops accurate</b> planning drawings/diagrams and <b>lists</b> requirements for the creation of the chosen solution.</li> </ul>   |
| 7-8               | <ul style="list-style-type: none"> <li>• <b>develops detailed</b> design specifications, which <b>explain</b> the success criteria for the design of a solution based on the analysis of the research</li> <li>• <b>develops a range of</b> feasible design ideas, using an appropriate medium(s) <b>and detailed</b> annotation, which can be <b>correctly</b> interpreted by others</li> <li>• <b>presents</b> the chosen design and <b>justifies fully and critically</b> its selection with <b>detailed</b> reference to the design specification</li> <li>• <b>develops accurate and detailed</b> planning drawings/diagrams and <b>outlines</b> requirements for the creation of the chosen solution.</li> </ul> |

## Criterion C: Creating the solution

| Achievement level | Level descriptor  |
|-------------------|---|
| 0                 | The student does not reach a standard described by any of the descriptors below.  |
| 1-2               | The student: <ul style="list-style-type: none"> <li>• <b>demonstrates minimal</b> technical skills when making the solution</li> <li>• <b>creates</b> the solution, which functions <b>poorly</b> and is presented <b>in an incomplete form</b>.</li> </ul>   |
| 3-4               | The student: <ul style="list-style-type: none"> <li>• <b>constructs a plan</b> that contains some production details, resulting in peers having difficulty following the plan</li> <li>• <b>demonstrates satisfactory</b> technical skills when making the solution</li> <li>• <b>creates</b> the solution, which <b>partially</b> functions and is <b>adequately</b> presented</li> <li>• <b>outlines</b> changes made to the chosen design and plan when making the solution.</li> </ul>  |
| 5-6               | The student: <ul style="list-style-type: none"> <li>• <b>constructs a logical plan</b>, which considers time and resources, sufficient for peers to be able to follow to create the solution</li> <li>• <b>demonstrates competent</b> technical skills when making the solution</li> <li>• <b>creates</b> the solution, which functions <b>as intended</b> and is presented <b>appropriately</b></li> <li>• <b>describes</b> changes made to the chosen design and plan when making the solution.</li> </ul>  |
| 7-8               | The student: <ul style="list-style-type: none"> <li>• <b>constructs a detailed and logical plan</b>, which <b>describes</b> the efficient use of time and resources, sufficient for peers to be able to follow to create the solution</li> <li>• <b>demonstrates excellent</b> technical skills when making the solution.</li> <li>• follows the plan to <b>create</b> the solution, which functions <b>as intended</b> and is presented <b>appropriately</b></li> <li>• fully <b>justifies</b> changes made to the chosen design and plan when making the solution.</li> </ul> |

## Criterion D: Evaluating

| Achievement level | Level descriptor   |
|-------------------|--|
| 0                 | The student does not reach a standard described by any of the descriptors below.   |
| 1-2               | The student: <ul style="list-style-type: none"> <li>• <b>designs a testing method</b>, which is used to measure the success of the solution</li> <li>• <b>states</b> the success of the solution.</li> </ul>   |
| 3-4               | The student: <ul style="list-style-type: none"> <li>• <b>designs a relevant testing method</b>, which generates data, to measure the success of the solution</li> <li>• <b>outlines</b> the success of the solution against the design specification based on <b>relevant</b> product testing</li> <li>• <b>outlines</b> how the solution could be improved</li> <li>• <b>outlines</b> the impact of the solution on the client/target audience.</li> </ul>                        |
| 5-6               | The student: <ul style="list-style-type: none"> <li>• <b>designs relevant testing methods</b>, which generate data, to measure the success of the solution</li> <li>• <b>explains</b> the success of the solution against the design specification based on <b>relevant</b> product testing</li> <li>• <b>describes</b> how the solution could be improved</li> <li>• <b>explains</b> the impact of the solution on the client/target audience, <b>with guidance</b>.</li> </ul>   |
| 7-8               | The student: <ul style="list-style-type: none"> <li>• <b>designs detailed and relevant testing methods</b>, which generate data, to measure the success of the solution</li> <li>• critically <b>evaluates</b> the success of the solution against the design specification based on <b>authentic</b> product testing</li> <li>• <b>explains</b> how the solution could be improved</li> <li>• <b>explains</b> the impact of the product on the client/target audience.</li> </ul> |

## Academic Honesty and Personal Integrity

The faculty at Carson Graham expects our students to complete academic and nonacademic work that is authentic and respectful of intellectual property. All students are expected to adhere to the school's Policy for Academic Integrity.

Ignorance of the standards related to academic honesty and student integrity is not an excuse for dishonesty, plagiarism and malpractice. You are expected to familiarize yourself with the policy.

<https://www.sd44.ca/school/carson/About/schoolpolicies/Documents/Carson%20Graham%20Academic%20Honesty%20Policy%20reviewed%20December%202018.pdf>