

COURSE OUTLINE – MYP YEAR 4 INFORMATION COMMUNICATION TECHNOLOGY



Course Overview:

Applied Design, Skills and Technologies 9 includes several project-based disciplines of study, of which Information and Communications Technologies (ICT) 9 is one option. While each ADST 9 option uses a different medium of study, all apply the Design Cycle as the core method to develop effective design solutions. Specific attention is paid to analyzing the essential qualities of a successful design solution in order to determine essential design criteria, developing a plan that will incorporate those criteria, creating the solution based upon that plan and then evaluating the effectiveness of the solution based upon those criteria.

In ADST (ICT) 9, students create and manipulate digital graphics and images to fulfill intended purposes for defined audiences. In extension to what was learned in the Digital Literacy component of Designs 8 class, students will build upon the skills and understandings learned in with Adobe Photoshop. We also learn how to create visually effective vector graphics using Adobe Illustrator and sequence movement elements to create short 2D animations with Adobe Animate.

Throughout the course, we will address variety of issues related to good and safe digital citizenship, including ethical considerations relating to intellectual property and personal identity on the internet and methods to curate, access and share user-created files in a networked environment. Additionally, a focus of this course will be the potential social impact of graphic representations.

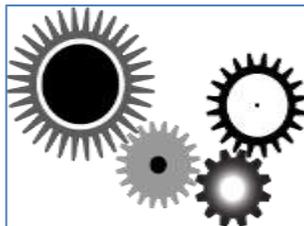
Learning:

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

Social, ethical, and sustainability considerations impact design.



Complex tasks require the sequencing of skills.



Complex tasks require different technologies and tools at different stages.



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

Statement of Inquiry	Concepts	Unit Title/Topic
The best design solutions respond effectively to the needs and expectations of the end user.	Key and Related Concepts: Development and Markets & Trends Global Contexts: Personal and Cultural Expression (Products)	Seeing is Believing: reworking digital images to meet a defined need.
Design decisions made for creative reasons have impacts (both intended and unintended) on distinct communities.	Key and Related Concepts: Communities and Perspective Global Contexts: Globalization and Sustainability (Diversity & Interconnection)	Graphics Have an Impact: how graphic representations are seen.
Human movements can be deconstructed and represented with a digital analogue.	Key and Related Concepts: Systems and Ergonomics Global Contexts: Scientific and Technical Innovation (Models)	Making It Move: representing human movement with digital analogues.

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

CURRICULAR COMPETENCIES CATEGORIES	EXAMPLES (Selected from Curricular Competencies)
Understanding Context	<ul style="list-style-type: none"> Engage in research and empathetic observation in order to understand design opportunities Concisely explain a Design Problem.
Defining	<ul style="list-style-type: none"> Identify potential users and relevant contextual factors. Identify criteria for success, intended impact, and any constraints. Develop a Design Brief and Evaluation Criteria.
Ideating	<ul style="list-style-type: none"> Take creative risks in generating ideas and add to others' ideas in ways that enhance them. Screen ideas against criteria and constraints. Critically analyze and prioritize competing factors, including social, ethical, and sustainability considerations, to meet community needs for preferred futures. Choose an idea to pursue, keeping other potentially viable ideas open
Prototyping	<ul style="list-style-type: none"> Develop a plan that includes key stages. Prototype, making changes to design, strategies and procedures as needed.
Testing	<ul style="list-style-type: none"> Test the first version of the design solution against developed criteria. Gather peer and/or user feedback, then make changes to the design solution and test again.
Making	<ul style="list-style-type: none"> Identify and use appropriate tools, technologies; source appropriate digital materials for the design solution. Make a step-by-step plan for production and carry it out, making changes as needed. Put into practice the development plan, incorporating the chosen design, strategies and procedures.
Sharing	<ul style="list-style-type: none"> Demonstrate their product to an appropriate audience. Critically evaluate the success of their product, and explain how their design ideas contribute to the individual, family, community, and/or environment. Critically reflect on their design thinking and processes, and evaluate their ability to work effectively both as individuals and collaboratively in a group, including their ability to share and maintain an efficient co-operative work space. Identify new design issues.

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
Research skills	Gather information from design problem-specific inquiry and make relevant, detailed observations.
Thinking skills	Analyze observations and information gained from design problem-specific inquiry. Develop criteria to test potential design plans.
Social skills	Practice giving feedback on the design solutions with reference to established design-specific criteria; demonstrate academic integrity.
Communication skills	Use of appropriate text and graphic media to convey an intended message to a defined audience.
Self-management skills	Structure information appropriately for a given design project; use appropriate resources and available timeframe and supports to complete a design solution.

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. Formative assessments could include;	Summative assessment is assessment <i>of</i> learning. Summative assessments could include;
A: Inquiring and Analyzing	Guided and informal inquiry exercises pursued individually, in pairs, small groups and as a full class.	Formal design inquiry and analysis
B: Developing Ideas	Guided and informal criteria development and ideation exercises pursued individually, in pairs, small groups and as a full class.	Formal written description of qualitative criteria for summative projects. Presentation of chosen design ideas through a 'product pitch'.
C: Creating the Solution	Multiple small 'practice projects' allowing students to practice the use of specific tools, techniques and strategies explained and demonstrated through direct instruction.	<p><u>"Formal Photograph" project</u>: Modifying a formally posed digital photograph to meet a fictitious customer's expectations.</p> <p><u>"Altered Reality" project</u>: Manipulated digital photograph that causes the viewer to question the initial physical presumptions contained in the image.</p> <p><u>"Sophisticated Cartoon Character" project</u>: Creation of an original, sophisticated cartoon character.</p> <p><u>"Dancing Stickman" project</u>: Creation of an animation of a least 15 seconds in duration that reproduces the physical movements of a human through the analogue of a 'stick man'.</p>
D: Evaluating	Guided and informal critiques of sample designs provided by the teacher and classmates.	Formal written critique of a student-designer's "design solution".

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>

Grade Descriptors:

Grade 7

Produces high-quality, frequently innovative design solutions through the application of the design cycle. Communicates comprehensive, nuanced understanding of design concepts and contexts through independent and detailed work. Consistently demonstrates sophisticated critical and creative thinking to inform research methods and to refine selected solutions. Frequently transfers knowledge and applies skills, with independence and expertise, to complex real-world issues.

Grade 6

Produces high-quality, occasionally innovative design solutions through the application of the design cycle. Communicates extensive understanding of design concepts and contexts through independent and detailed work. Demonstrates critical and creative thinking to inform research methods and to refine selected solutions, frequently with sophistication. Transfers knowledge and applies skills, often with independence, to real-world issues.

Grade 5

Produces generally high-quality design solutions through the application of the design cycle. Communicates good understanding of design concepts and contexts. Demonstrates critical and creative thinking to inform research methods and to refine selected solutions, sometimes with sophistication. Usually transfers knowledge and applies skills, with some independence, to real-world issues.

Grade 4

Produces good-quality design solutions through the application of the design cycle. Communicates basic understanding of design concepts and contexts, with few misunderstandings and minor gaps. Often demonstrates critical and creative thinking to inform research methods and to refine selected solutions. Transfers some knowledge and applies some skills in familiar situations, but requires support in unfamiliar situations.

Grade 3

Produces design solutions of an acceptable quality that generally follow the design cycle. Communicates basic understanding of design concepts and contexts in the work with occasional significant misunderstandings or gaps. Begins to demonstrate some critical and creative thinking to inform research methods and to refine selected solutions. Begins to transfer knowledge and apply skills, requiring support even in familiar situations.

Grade 2

Produces work of limited quality. Communicates limited understanding of some design concepts and contexts. Demonstrates limited evidence of critical or creative thinking. Limited evidence of transfer of knowledge or application of skills.

Grade 1

Produces work of a very limited quality. Conveys many significant misunderstandings or lacks understanding of most design concepts and contexts. Very rarely demonstrates critical or creative thinking. Very inflexible, rarely shows evidence of knowledge or skills.

Assessment Rubrics:

Grade 9

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"> • states the need for a solution to a problem • states the findings of research.
3-4	<ul style="list-style-type: none"> • outlines the need for a solution to a problem • states some points of research needed to develop a solution, with some guidance • states the main features of an existing product that inspires a solution to the problem • outlines some of the main findings of research.
5-6	<ul style="list-style-type: none"> • explains the need for a solution to a problem • states and prioritizes the main points of research needed to develop a solution to the problem, with some guidance • outlines the main features of an existing product that inspires a solution to the problem • outlines the main findings of relevant research.
7-8	<ul style="list-style-type: none"> • explains and justifies the need for a solution to a problem • states and prioritizes the main points of research needed to develop a solution to the problem, with minimal guidance • describes the main features of an existing product that inspires a solution to the problem • presents the main findings of relevant research.

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"> • states one basic success criterion for a solution • presents one design idea, which can be interpreted by others • creates an incomplete planning drawing/diagram.
3-4	<ul style="list-style-type: none"> • states a few success criteria for the solution • presents more than one design idea, using an appropriate medium(s) or labels key features, which can be interpreted by others • states the key features of the chosen design • creates a planning drawing/diagram or lists requirements for the creation of the chosen solution.
5-6	<ul style="list-style-type: none"> • develops a few success criteria for the solution • presents a few feasible design ideas, using an appropriate medium(s) and labels key features, which can be interpreted by others • presents the chosen design stating the key features • creates a planning drawing/diagram and lists the main details for the creation of the chosen solution.
7-8	<ul style="list-style-type: none"> • develops a list of success criteria for the solution • presents feasible design ideas, using an appropriate medium(s) and outlines the key features, which can be correctly interpreted by others • presents the chosen design describing the key features • creates a planning drawing/diagram, which outlines the main details for making the chosen solution.

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"> • demonstrates approaching technical skills when making the solution • presented in an incomplete form.
3-4	The student: <ul style="list-style-type: none"> • lists the main steps in a plan that contains the details to follow the plan to create the solution • demonstrates good technical skills when making the solution • creates the solution, which partially functions and is adequately presented. • states more than one change made to the chosen design or plan when making the solution.
5-6	The student: <ul style="list-style-type: none"> • lists the steps in a plan, which considers time and resources, resulting in peers being able to follow the plan to create the solution • demonstrates competent technical skills when making the solution • creates the solution, which functions as intended and is presented appropriately • states one change made to the chosen design and plan when making the solution.
7-8	The student: <ul style="list-style-type: none"> • outlines a plan, which considers the use of resources and time, sufficient for peers to be able to follow to create the solution • demonstrates excellent technical skills when making the solution • follows the plan to create the solution, which functions as intended and is presented appropriately • explains changes made to the chosen design and plan when making the solution.

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"> • describes a testing method, which is used to measure the success of the solution • states the success of the solution.
3-4	The student: <ul style="list-style-type: none"> • defines a relevant testing method, which generates data, to measure the success of the solution • states the success of the solution against the design specification based on the results of one relevant test • states one way in which the solution could be improved • states one way in which the solution can impact the client/target audience.
5-6	The student: <ul style="list-style-type: none"> • defines relevant testing methods, which generate data, to measure the success of the solution • states the success of the solution against the design specification based on relevant product testing • outlines one way in which the solution could be improved • outlines the impact of the solution on the client/target audience, with guidance.
7-8	The student: <ul style="list-style-type: none"> • outlines testing methods used, which demonstrate the success of the solution • outlines the success of the solution against the design specification based on authentic product testing • describes how the solution could be improved • outlines the impact of the solution on the client/target audience.