Applied Design, Skills and Technology (ADST) 8 Comprehensive

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Reporting Procedure:

- Ongoing progress is available on JupiterGrades and Blackboard
- There will be a minimum of 2 Ongoing Communications of Student Learning per semester.

Assessment:

- The new Ministry of Education Assessment and Reporting Order has changed the way we report to parents. We will now be communicating ***with*** parents rather than reporting ***to*** parents. Students will be assessed on the following levels of competency at grade level:

Emerging	Developing	Proficient	Extending
in the acquisition of knowledge, skills, strategies and processes	**the ability to apply knowledge, skills, strategies and processes.**	**in the consistent application of knowledge, skills, strategies and processes .**	**knowledge, skills, strategies and processes creatively and strategically.**
The student demonstrates an initial understanding of the concepts and competencies.	• The student demonstrates a partial understanding of the concepts and competencies.	• The student demonstrates a complete understanding of the concepts and competencies.	• The student demonstrates a sophisticated understanding of the concepts and competencies.

Mastery is encouraged. Students who wish to improve their work and resubmit are invited to discuss their options with their teacher.

When the authenticity of student work is in question, the teacher reserves the right to base final grades on teacher supervised assignments and assessments.

Resources

Blackboard Learn Website: http://sd68.blackboard.com
login: 4lastnamefirstinitial
password: firstname

Jupiter Grades: Mark update and assignment feedback at https://jupitergrades.com

School Website: https://island-connected.sd68.bc.ca

BIG IDEAS: *Students are expected **to understand** the following*:

1. Design can be responsive to identified needs.
2. Complex tasks require the acquisition of additional skills.
3. Complex tasks may require multiple tools and technologies.

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

Understanding Context

1. Empathize with potential users to find issues and uncover needs and potential design opportunities.

Defining

1. Choose a design opportunity
2. Identify key features or potential users and their requirements
3. Identify criteria for success and any constraints

Ideating

4. Generate potential ideas and add to others' ideas
5. Screen ideas against criteria and constraints
6. Evaluate personal, social, and environmental impacts and ethical considerations
7. Choose an idea to pursue

Prototyping

8. Identify and use sources of information
9. Develop a plan that identifies key stages and resources
10. Explore and test a variety of materials for effective use
11. Construct a first version of the product or a prototype, as appropriate, making changes to tools, materials, and procedures as needed
12. Record iterations of prototyping

Testing

13. Test the first version of the product or the prototype

14. Gather peer and/or user and/or expert feedback and inspiration
15. Make changes, troubleshoot, and test again

Making

16. Identify and use appropriate tools, technologies, and materials for production
17. Make a plan for production that includes key stages, and carry it out, making changes as needed
18. Use materials in ways that minimize waste

Sharing

19. Decide on how and with whom to share their product
20. Demonstrate their product and describe their process, using appropriate terminology and providing reasons for their selected solution and modifications
21. Evaluate their product against their criteria and explain how it contributes to the individual, family, community, and/or environment
22. 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 cooperative work space.
23. Identify new design issues

Applied Skills

1. Demonstrate an awareness of precautionary and emergency safety procedures in both physical and digital environments
2. Identify and evaluate the skills and skill levels needed, individually or as a group, in relation to a specific task, and develop them as needed

Applied Technologies

2. Select, and as needed learn about, appropriate tools and technologies to extend their capability to complete a task
3. Identify the personal, social, and environmental impacts, including unintended negative consequences, of the choices they make about technology use
4. Identify how the land, natural resources, and culture influence the development and use of tools and technologies

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

Students will select 4 modules, or the equivalent, to fulfill the requirements of this course. Each module should be the equivalent of about 1/4 of a course. Some modules may be double modules, equivalent to 1/2 of a course.

Food Studies - cross-contamination, including prevention and management - food preparation practices, including elements of a recipe, techniques, and equipment - effects of removing or substituting ingredients, including nutritional profile, food quality, taste - social factors that affect food choices, including eating practices - variety of eating practices - local food systems - First Peoples food use and how that use has changed over time	**Media Arts** - digital and non-digital media technologies, their distinguishing characteristics, and their uses, including layout and design, graphics and images, and video production techniques for using images, sounds, and text to represent characterizations and points of view of people, including themselves, as well as settings and ideas - story principles and genre conventions - media technologies and techniques to shape space, time, movement, and lighting within images, sounds, and text for specific purposes - processes for manipulating and testing digital media data - issues in ethical media practices, including cultural appropriation, moral copyright, reproduction, and privacy - elements of media arts used to communicate meaning - influences of digital media, including on communication and self-expression
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Information Technology - text-based coding - binary representation of various data types, including text, sound, pictures, video - drag-and-drop mobile development - programming modular components - development and collaboration in a cloud-based environment - design and function of networking hardware and topology, including wired and wireless network router types, switches, hubs, wireless transfer systems, and - client-server relationships - functions of operating systems, including mobile, open source, and proprietary systems - current and future impacts of evolving web standards and cloud-based technologies - design for the web - strategies for curating and managing personal digital content, including management, personalization, organization, maintenance, contribution, creation, and publishing of digital content - relationships between technology and social change - strategies to manage and maintain personal learning networks, including content consumption and creation keyboarding techniques	**Spark** - Using any of the content areas, create your own series of projects (must be decided with the teacher prior to beginning) - For other areas, please see https://curriculum.gov.bc.ca/curriculum/adst/9
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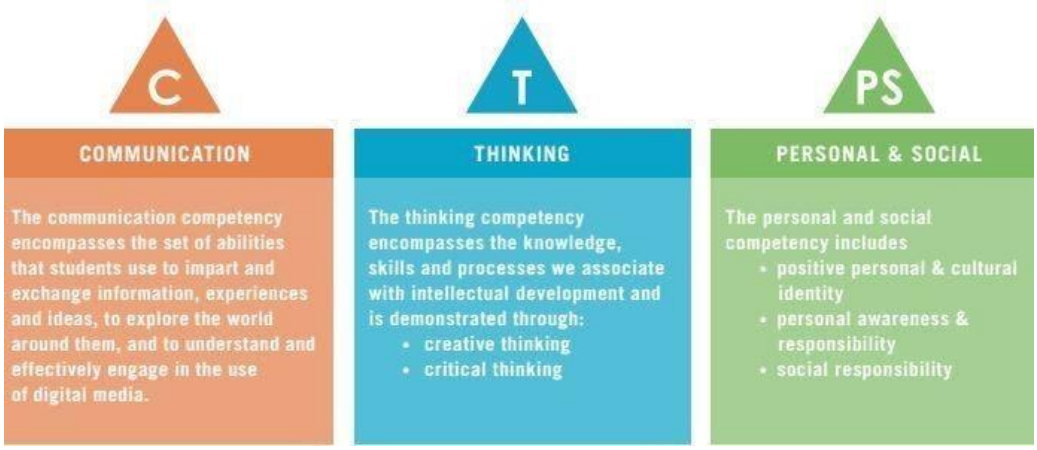
Electronics and Robotics • uses of robotics in local contexts • types of sensors • user and autonomous control systems • uses and applications of end effectors • movement- and sensor-based responses • program flow • interpretation and use of schematics for assembling circuits • identification and applications of components • various platforms for robotics programming	**Entrepreneurship and Marketing:** • characteristics of entrepreneurial activity • characteristics of social entrepreneurship in First Nations communities • recognition of a market need and identification of target market • development of a product or service, including its features and benefits • forms of advertising and marketing that can influence a potential customer or buyer • differences between consumer wants and needs • role of money management in financing an idea or developing a product
Textiles • sources of textile materials • hand and machine construction techniques for producing and/or repairing textile items • basic components of patterns and instructions • colour as an element of design • personal factors that influence textile choices, including culture and self-expression, and the impact of those choices on individual and cultural identity	**Drafting** • manual and computer-aided drafting techniques • elements of technical plans and drawings • advantages of using vector files • virtual creation using CAD

CORE COMPETENCIES: Students will be accessing the Core Competencies in all their curricular areas. They may be self-assessing the Core Competencies on their Ongoing Communications. Summative reports at the end of the course will report that the student has engaged in this self-assessment.



Attendance

Please be aware that Island Connect K -12 does not have a general attendance requirement. However, it is in your best interests to make a habit of checking in with your teacher at least once a month (for this course specifically) – face to face, by email, or by phone. Past learners have stated that such contact promotes engagement with the course materials and serves to motivate them to complete the work in a timely fashion.

Completion Timeline Expectations

Successful learners typically finish at least half the course in the first semester, but it can be completed in four months or less. COMMIT to achieving your goals! Get a calendar out and plan how and when you will complete each activity in the first two modules immediately. If you mess up, do your best to catch up, but change the timeline right away to reflect this change and, then, do your best to never let yourself fall behind again.