



Board/Authority Authorized Course Framework Template

School District/Independent School Authority Name: Coquitlam	School District/Independent School Authority Number (e.g. SD43, Authority #432): SD43
Developed by: John Sarte, Alan Soiseth, David Truss	Date Developed: March 14, 2018
School Name: Inquiry Hub Secondary	Principal's Name: David Truss
Superintendent Approval Date (for School Districts only):	Superintendent Signature (for School Districts only):
Board/Authority Approval Date:	Board/Authority Chair Signature:
Course Name: Foundations of Inquiry	Grade Level of Course: 11
Number of Course Credits: 4	Number of Hours of Instruction: 100

Board/Authority Prerequisite(s):

Special Training, Facilities or Equipment Required:

Students will require access to computers, applications that allow for generating content (e.g., word processing, photo editing, video editing software), and access to the Internet.

Course Synopsis:

Foundations of Inquiry 11 is a process-based course reflecting the necessary skills for effective participation in contemporary society. Learners will participate in inquiries that are designed to be a complex combination of structured learning with intentional opportunities for students to create, design, imagine along with developing new possibilities. As a continuation of Foundations of Inquiry 10, this course goes beyond a generalized understanding of inquiry-based learning and prompts students to explore how inquiry is conducted in various disciplines and interdisciplinary research. For instance, how might inquiry in the social sciences differ from research in the physical sciences?

Goals and Rationale:

Inquiry is necessary for successful participation in our democratic society. The current and emerging skills required of our contemporary knowledge society require that what learners are able to do is more important than what they know. The natural learning process is invoked through curiosity, which leads to questioning, exploration and the pursuit of these questions in order to satisfy this curiosity. The intent of this course is to identify the knowledge, skills and attitudes reflective of an effective inquiry stance toward learning in order to support students in investigating required or self-selected content.

Inquiry emphasizes the process of learning in order to develop deep understanding in addition to the intended acquisition of content, knowledge and skills. Inquiry draws upon a constructive learning theory where understanding is built through the active development of conceptual mental frameworks by the learner. Students come to the classroom with preconceptions about the world. Teaching practices must draw out and work with students' pre-existing understandings and make student 'thinking' visible and central to the learning. At its heart inquiry is a process of metacognition. The purpose of this course is to bring this metacognition to the forefront AS the learning and have students demonstrate their ability to identify the various forms of inquiry – across domains and disciplines and the stages of inquiry as they move through them, experience failure and stuckness at each level.

Foundations of Inquiry 11 recognizes that competence in an area of study requires factual knowledge organized around conceptual frameworks to facilitate knowledge retrieval and application. Classroom activities are designed to develop understanding through in-depth study both within and outside the required curriculum.

Aboriginal Worldviews and Perspectives:

Links to First Peoples' Principles of Learning:

- Learning ultimately supports the well-being of the self, the family, the community, the land, the spirits, and the ancestors
- Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, reciprocal relationships, and a sense of place)
- Learning involves recognizing the consequences of one's actions
- Learning involves generational roles and responsibilities
- Learning recognizes the role of indigenous knowledge
- Learning is embedded in memory, history, and story
- Learning involves patience and time
- Learning requires exploration of one's identity
- Learning involves recognizing that some knowledge is sacred and only shared with permission and/or in certain situations.

BIG IDEAS

Personal design interests require the evaluation and refinement of skills.

Products can be **designed for life cycle.**

Tools and technologies can be adapted for specific purposes.

Learning Standards

Curricular Competencies	Content
<p><i>Students are expected to do the following:</i></p> <p>Applied Design</p> <ul style="list-style-type: none"> • Find a question, problem or need. • Design a feasible, structured investigation. <p><i>Understanding context</i></p> <ul style="list-style-type: none"> • Engage in a period of research and observation • Conduct user-centred research to understand design opportunities and barriers <p><i>Defining</i></p> <ul style="list-style-type: none"> • Choose a design opportunity and point of view • Identify potential users, intended impact, and possible unintended negative consequences • Make inferences about premises and boundaries that define the design space <p><i>Ideating</i></p> <ul style="list-style-type: none"> • Take creative risks to identify gaps to explore as design space • Generate ideas to create a range of possibilities and add to others' ideas in ways that create additional possibilities • Critically analyze how competing social, ethical, and sustainability considerations impact designed solutions to meet global needs for preferred futures • Prioritize ideas for prototyping and designing with users 	<p><i>Students are expected to know the following:</i></p> <p>Understand and use terminology related to inquiry in a variety of disciplines:</p> <ul style="list-style-type: none"> • art-based • scientific method • design thinking • qualitative research • philosophical inquiry • indigenous perspective <p>Learn with purpose</p> <ul style="list-style-type: none"> • Pursue personal interest or need • Pursue a curricular outcome in another subject area (Science, Math, English, etc.) • To help others (human-centered design) <p>Develop questions</p> <ul style="list-style-type: none"> • Find or identify a problem that needs to be solved • Identify relevant background knowledge or skills • Identify necessary skills needed to complete the inquiry • Identify interests and passions

Prototyping

- **Construct or make a representation, service or product related to your learning.**
- Identify and use a variety of sources of inspiration and information
- Choose an appropriate form, scale, and level of detail for prototyping, and plan procedures for prototyping multiple ideas
- Analyze the design for life cycle
- Construct prototypes, making changes to tools, materials, and procedures as needed
- Record iterations of prototyping

Testing

- Identify feedback most needed and possible sources of that feedback
- Develop an appropriate test of the prototype
- Gather feedback from users over time to critically evaluate their design and make changes to product design or processes
- Iterate the prototype or abandon the design idea

Making

- Identify appropriate tools, technologies, materials, processes, potential funding sources, and time needed for production, and where/how these could be available
- Use project management processes when working individually or collaboratively to coordinate production

Sharing

- **Share your findings, understandings, creations.**
- Share their progress while making to increase feedback, collaboration, and, if applicable, marketing
- Decide on how and with whom to share or promote their product, creativity, and, if applicable, intellectual property
- **Evaluate and reflect on processes as well as results.**
- Critically evaluate their design thinking and processes, and their ability to work effectively both as individuals and collaboratively in a group, including the ability to implement project management processes
- Identify new design issues, including how they or others might build on their concept

Conduct research: find, synthesize, and evaluate information from a variety of sources (digital, print, etc.)

- Contact and consult with expertise
- Identify and join a community of learning
- Conduct interviews
- Evaluate quality of expertise and research

Curate and document information, data, time allocation, etc.

Manage their own projects, coordinate resources, collaborate with others, etc.

Resolve or conclude their project by creating a product, artifact, performance, design, etc.

Share with an Audience

- Process (through blogs, presentations, conversations, etc.)
- Progress - challenges faced and measures taken to overcome
- Product (through presentation, performance, etc.)
- Collaborate with others

Reflect on their Learning

- Next steps
- Improvements
- Reiterate

Applied Skills

- Demonstrate an awareness of safety issues for themselves, co-workers, and users in both physical and digital environments
- Identify and evaluate their skills and skill levels, in relation to their project or design interests, and develop specific plans to learn or refine their skills over time

Applied Technologies

- Explore existing, new, and emerging tools, technologies, and systems and evaluate their suitability for their design interests
- Analyze the role and impact of technologies in societal change, and the personal, social, and environmental impacts, including unintended negative consequences, of their choices of technology use
- Analyze how cultural beliefs, values, and ethical positions affect the development and use of technologies

Big Ideas – Elaborations

- **designed for life cycle:** taking into account in the design process, economic costs, and social and environmental impacts of the product, from the extraction of raw materials to eventual reuse or recycling of component materials

Curricular Competencies – Elaborations

Students are expected to do the following:

- **Find a question, problem or need** of your own and/or for a well-defined community.
- **Design a feasible, structured investigation** within a discipline or a cross-disciplinary domain.
- **Construct or make a representation, service or product related to your learning** and applicable to the area of study.
- **Share your findings, understandings, creations** with various audiences beyond your school community.
- **Evaluate and reflect on process as well as results.**

Content – Elaborations

Curate and document - Students will have to create and maintain a learning log that documents number of hours spent on inquiry projects, reflection on process, evolving questions, and next steps. In addition, students will have to curate all of their information to share their inquiry story with various audiences.

Recommended Instructional Components:

All instruction will be conducted in the context of inquiry investigation, analysis, application and reflection.

- Inquiry stance as primary process for instructional engagement with a variety of content – student selected, teacher identified and/or mandated by curriculum

- On-going nature of the inquiry cycle as initial questions lead to greater questions which lead to the need for on-going reflection and revision - synthesizing, analyzing, evaluating etc.
- A variety of individual, partner, small and whole community learning experiences – both face to face and digitally as appropriate to task – principles of effective group work always being utilized
- Structured dialogue and discourse- synchronously and asynchronously, face to face and digitally
- Interdisciplinary study
- Student self-directed, educator supported and facilitated learning plans
- Use of experts from around the world via virtual connectedness

Recommended Assessment Components: Ensure alignment with the [Principles of Quality Assessment](#)

Effective formative assessment via:

- Clearly articulated and understood learning intentions and success criteria
- Questions posed by students, peers and teachers to move learning forward
- Discussions and dialogue
- Feedback that is timely, clear and involves a plan
- Students as resources for themselves and others – peer and self-assessment
- Student ownership
- Formative assessment used to adapt learning experiences and inquiry plans on an on-going basis to meet specific learning goals.
- Development, awareness and action, based upon metacognition intended to lead to learner independence and self-coaching.

Summative assessments will be determined as students demonstrate proficiency/mastery toward particular learning outcomes. Summative assessments and final grades will reflect the following:

- Students will work collaboratively with the teacher to determine summative achievement on assignments and letter grades based upon dialogue, and evidence of learning
- Only individual learning demonstrated –no group marks – will be used to determine grades
- Letter grades will reflect learning towards the learning standards articulated above
- Letter grades will be based upon criteria provided/agreed upon toward the learning standards
- Letter grades will be determined in relation to the learning standards – not in comparison to the achievement of other students
- Professional judgement and evidence will be used to determine final letter grade in consultation with the student

- Zeros will not be assigned to missed assignments – all required assignments must be completed
- Most recent evidence toward learning outcomes will be used to assign letter grades – learning is not averaged over time

Learning Resources:

- Personal learning device
- Stable wireless network
- Broadcasting devices – such as LCD projector
- Learning Management System (LMS)
- Digital Portfolio tool
- Online digital tools – a variety
- Furniture to support a flexible learning environment conducive to the inquiry philosophy
 - Couches
 - Tables/chairs
 - Work stations

Additional Information:



MEMO

DATE Monday, May 28, 2018
TO Mr. Dave Truss, Millside Centre Principal
FROM Ms. Terri Galligos, District Aboriginal Resource Teacher
SUBJECT Weaving Digital Learning with Indigeneity

Thank you, Dave for inviting me to view the Foundations of Inquiry and Applications to Digital Learning courses from both Inquiry Hub Secondary and Coquitlam Open Learning. I have viewed these courses and compared how these courses weave into *The First Peoples Principles of Learning* - <https://firstpeoplesprinciplesoflearning.wordpress.com> and a *Call to Action from the Truth and Reconciliation Commission* - <http://www.trc.ca>.

Weaving Indigenous and non-Indigenous concepts reflects upon: starting a relationship based upon reconciliation beginning with a conversation; researching and becoming informed of what the 1st Peoples Principles and TRC reflect; and acknowledging whose traditional territory the Coquitlam Board of Education resides on. Collectively, the Aboriginal Education Department and community of Coquitlam have demonstrated good weaving practices in multifaceted ways from engaging in the new revised curriculum collaboratively; to hosting public events, such as the most recent viewing of the Indigenous film *Indian Horse*, a novel by Indigenous author Richard Wagamese, at the local cinema.

These woven concepts may be further enhanced by using digital literacy as a research tool; for example: comparing and contrasting past and present issues and trends regarding both Canadian and First Nations history; citing archived and current sources; and being an accurate and positive agent of change when unpacking the *BIG IDEAS* reflected upon these courses. Respect, diversity, and place are a few concepts belonging to the weave.

Thank you for your inquiry, please do not hesitate to contact the Aboriginal Education Department should you require further clarifications.

Respectfully Submitted,
TERRI GALLIGOS
DISTRICT ABORIGINAL RESOURCE TEACHER