



Board/Authority Authorized Course
Vernon Secondary School
Fulton Secondary School
Sustainable Futures 12

School District/Independent School Authority Name: Vernon School District	School District/Independent School Authority Number (e.g. SD43, Authority #432): SD#22
Developed by: Leon Kopy, Alan Gee, Barry Dorval	Date Developed: January 22, 2023
Superintendent Approval Date (for School Districts only): February 3, 2023	Superintendent Signature (for School Districts only): On course form
Board/Authority Approval Date: February 15, 2023	Board/Authority Chair Signature: On course form
Course Name: Sustainable Futures 12	Grade Level of Course: 11/12
Number of Course Credits: 4	Number of Hours of Instruction: 120

Board/Authority Prerequisite(s): Social Studies 10

Special Training, Facilities or Equipment Required: None

Course Synopsis: This course is designed to give students agency and responsibility regarding the challenges we face with climate change. Students will learn about the environmental deterioration of our world since the industrial revolution, the challenges we face in mitigating and/or adapting to climate change, and the potential solutions before us as we take on this task. The core element of this course will be taking action in our community to mitigate and/or help us adapt to climate change. Goal 10 is a direct representation of the focus of this course and is a natural fit. Regarding Community Connections goal 4, the course will provide an opportunity for students to connect, interact with and learn from local businesses, government officials, and NGOs. Sustainable Futures 12 will incorporate many curricular competencies. It will draw on some of the Social Studies, competencies, and some from Geography, Earth Science, and Environmental Science. Students will need to develop their inquiry skills, interpreting evidence, perspective, ethical judgment, and understanding continuity and change and cause and consequence. Other curricular competencies to be developed will include understanding patterns and trends, interactions and associations, forming hypotheses,

collecting qualitative and quantitative data, evaluating data, and planning, executing, and presenting their action plans. Sustainable Futures 12 will explore the rich perspectives of traditional Indigenous approaches to sustainable living (Seventh Generation Thinking). Specifically, the course will examine Indigenous perspectives on relationships of interconnection, reciprocity, and kinship with the land and other living things and how those understandings can be applied to western approaches to resource development. This course will look at traditional Indigenous knowledge and practices related to land stewardship and community resilience and how these perspectives can be applied to the predicament of climate change. This course is inherently cross-curricular and comprehensive. It serves as a conduit to help students understand the connections between social justice, environmentalism, science, business, and policy. By drawing on so many strands and bringing them together, students will find this course not only develops their curricular and core competencies, but also will inspire them to become active citizens in our community with a sense of stewardship for our future.

Goals and Rationale:

Goals

- To help students understand that there are monumental challenges ahead for our community, nation, and world
- To develop an understanding that there are overarching tasks ahead of us as a society: mitigation of climate change and adaptation to climate change
- To help students understand that they have agency in their community – their personal decisions and actions can make a difference
- To immerse students in the community through connections with local businesses, governments, and non-governmental organizations
- To help students understand that we are stronger when we work together in facing predicaments like climate change
- To help students understand that traditional Indigenous perspectives, knowledge, and practices are critical components of a meaningful response to climate change
- To develop skills and knowledge that increases students' confidence as agents of change and innovation in their community

Rationale

Sustainable Futures 12 is a course that can inspire students within the community to be leaders in environmental awareness and change. Students will imagine, develop, refine, and undertake a project that mitigates climate change and/or helps our community adapt to climate change. Through this project, students will develop the skills and competencies that will not only help them develop an effective project, but also serve them for the rest of their lives as active citizens. While this project will be a large portion of the course, the course will also include other instructional components.

Sustainable Futures 12 is in line with the BC Ministry of Education identified core competencies. Students will develop their communication competencies through their interaction with their fellow students and group members, their contact with community members, communicating their climate action plan in writing, and presenting their action plan verbally. Through this process, they will transform their ideas into action, which will lead to a sense of accomplishment and satisfaction. SF 12 will also help students develop thinking competencies through problem solving, inquiry, critical analysis, transformative reasoning, reflective practice, and creativity. This course will also help develop the personal and social competency of personal awareness and responsibility, as the climate action project will help them find their place in our community and will foster

a sense of belonging and agency. Above all, SF 12 will instill in students an overwhelming sense of social awareness and responsibility. Students will interact with our business community, government agencies, NGOs, and the general public to make a local impact on negating climate change.

Sustainable Futures 12 will also support School District 22's Strategic Plan. Specifically, the course will address Student Success goals 4, 6, and 10 and Community Connections goal 4. Students will be encouraged to connect with elementary school students in the development of their climate action plan, which will strengthen connections between feeder schools and high schools. In relation to goal 6, research shows that people who take action to address climate change experience better health and wellness due to the empowerment and sense of agency that it provides.

Goal 10 is a direct representation of the focus of this course and is a natural fit. Regarding Community Connections goal 4, the course will provide an opportunity for students to connect, interact with and learn from local business, government officials, and NGOs.

Sustainable Futures 12 will incorporate many curricular competencies. It will draw on some of the Social Studies competencies, as well as some from Geography, Earth Science, and Environmental Science. Students will need to develop their skills in inquiry, interpreting evidence, perspective, ethical judgment, as well as both understanding continuity and change and cause and consequence. Other curricular competencies to be developed will include understanding patterns and trends, interactions and associations, forming hypotheses, collecting qualitative and quantitative data, evaluating data, and planning, executing, and presenting their action plans.

Sustainable Futures 12 will explore the rich perspectives of traditional Indigenous approaches to sustainable living (Seventh Generation Thinking). Specifically, the course will examine Indigenous perspectives on relationships of interconnection, reciprocity, and kinship with the land and other living things and how those understandings can be applied to western approaches to resource development. This course will look at traditional Indigenous knowledge and practices related to land stewardship and community resilience and how these perspectives can be applied to the predicament of climate change.

This course is inherently cross curricular and comprehensive. It serves as a conduit to help students understand the connections between social justice, environmentalism, science, business, and policy. By drawing on so many strands and bringing them together, students will find this course not only develops their curricular and core competencies, but also will inspire them to become active citizens in our community with a sense of stewardship for our future.

Indigenous Worldviews and Perspectives:

First People's Principles of Learning

- The climate action project connected with this course will foster a sense of well-being for the
- self, the family, the community, the land, and our ancestors
- The course is inherently holistic and cross-curricular, experiential and relational;
- interconnectedness, giving back to nature in reciprocal ways, and respect for the land and place is
- central to the climate action project.
- Students will come to realize a sense of agency in that they will understand their actions can
- have positive consequences for our environment
- Students will interact with members of the community who will not be of their generation and
- will, in effect, learn with and from the elders of our community.

- Learning through conversation, memory and story will connect students to their community mentors.

Indigenous Worldviews and Perspectives

- Community involvement, interaction, engagement, and connectedness makes us stronger and more
- resilient
- The world exists in a state of relatedness; people, other life forms and the land are all
- connected
- We learn best by doing.
- Traditional ecological knowledge has value and a place in future discussions around
- sustainability
- Leadership is inclusive and distributed in the community
- Learning is particularly powerful when there is a local focus, and when ensuring all voices are heard

BIG IDEAS

Sustainability is essential for the future of our society	Our world is interconnected ecologically	Mitigation and adaptation are key strategies for the future	Balancing political, economic, social, cultural, and environmental factors is required for success	People who see themselves as agents of change are more hopeful for the future and will become active citizens
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Learning Standards

Curricular Competencies	Content
<i>Students are expected to do the following:</i> <i>Students are expected to do the following:</i> • Use inquiry-based learning processes • Recognize and explain trends and patterns in ideas and policies • Recognize and explain trends and patterns in data • Examine evidence and assess the credibility of a source • Recognize bias and propaganda in media • Compare and contrast how values and worldviews affect different individuals' abilities to assess the validity of information • Assess the significance of changes to our biosphere and resources • Recognize and evaluate different perspectives on ideas, policies, plans, and visions of the future • Make reasoned ethical judgements about policy and practices of governments, NGOs, and businesses • Recognize and apply traditional Indigenous knowledge and practices to sustainability challenges • Plan, research, develop, and implement ideas collaboratively with others • Make connections in the community with local officials, business leaders, and innovators • Create, design, assess, revise, and implement a plan in the community that mitigates and/or helps adapt to climate change • Communicate and reflect on the planning, implementation, successes and challenges associated with the project	<i>Students are expected to know the following:</i> <i>Students are expected to know the following:</i> • The causes of climate change • Impacts of expansionist thinking and unfettered economic development on our environment • The concepts of planetary boundaries and ecological overshoot • The United Nations Sustainable Development Goals • Impacts of climate change • Local, provincial, national, and global environmental issues relating to air, water, soil, energy, food, transportation, and health. (technologies) • How citizen advocacy can lead to government policy development and change • Local government's climate action plans • Personal choices and sustainable living impacts • Mitigation strategies • Adaptation strategies • How career options in the modern economy are shifting in the face of the new realities connected to climate change • Indigenous ways of knowing and traditional ecological knowledge/practices strengthens and informs sustainability thinking and practices into the future.

Big Ideas – Elaborations

We live on a finite planet; a shift to sustainable thinking models is essential for the survival of our biosphere
Our interaction with the natural world needs to be reorganized in a way that is reciprocal.
Traditional Indigenous knowledge and practices are critical to a robust response to the climate change predicament.
The economic and resource extraction model our world has been using for the last 200+ years is unsustainable.
Many powerful systems and actors exist which do not wish to see a change in the status quo.
A sense of agency can alleviate the angst connected to confronting the realities of climate change.

Curricular Competencies – Elaborations

Students are expected to work collaboratively to generate an action-based project that will address one or both of mitigation and adaptation.
A core component of this course will be to participate in a public forum where students will display and present their work to other students, stakeholders and members of the broader community

Content – Elaborations

- Expansionist Thinking – a concept developed in the 16th century, making the assumption that our resources on this planet were unlimited
- The United Nations Sustainable Development Goals – 17 goals that address natural system on earth and interaction we have with the biosphere to ensure sustainability.
- Planetary Boundaries – research that allows students to understand the limits of human utilization
- of natural resources and nature-based cycles that support the health of the biosphere.
- Ecological Overshoot – Ecological overshoot occurs when human demand exceeds the regenerative capacity of a natural ecosystem; global overshoot occurs when humanity demands more than what the biosphere can renew.
- Local Government's Climate Action Plan – many municipalities including the City of Vernon have implemented a Climate Action Plan which looks to incorporate people and local businesses into a comprehensive plan for a sustainable future.
- Mitigation Strategies: renewable energy sources, replanting and regeneration of soil and ecological systems, waste management, sustainable transportation systems, making buildings more energy efficient, CO₂ sequestration, and water reclamation and conservation.
- Adaptation Strategies: preparing citizens for rising seas, forest fires, higher temperatures, droughts, floods, lower crop yields, strains on water resources, transportation infrastructure disruptions, and impacts on personal health.
- The shifting employment horizon – much of the modern Canadian economy is tied to fossil fuel extraction, production and use. To respond to climate change, this aspect of our economy will shift significantly; this will mean the loss of some historically significant career choices even as new low-carbon career options are revealed.

Content – Elaborations

- Indigenous worldview – Western conceptions of individualism, land ownership, capitalism, and human primacy (among other things) have led to our climate change predicament; we need to re-evaluate the importance of traditional Indigenous knowledge and practices and Indigenous ways of knowing and being as we develop robust, interconnected, and compassionate responses to the challenges we face as a species

Recommended Instructional Components:

- Experiential learning
- Inquiry-based learning
- Reflective Writing
- Direct Instruction
- Demonstrations
- Collaborative task-based learning
- Project-based learning
- Mentor/mentee dialogic learning

Recommended Assessment Components: Ensure alignment with the Principles of Quality Assessment

- Qualitative self-assessment
- Formative assessment in the form of ongoing feedback, both informal and formal
- Journal writing – reflective and reflexive self-assessment
- Collection of evidence of learning over the span of the course
- Summative self and consultative assessment
- Comprehensive formative and summative assessment reported to parents based on the know-do-understand model

Learning Resources:

- The United Nations 17 Goals for Sustainable Development <https://sdgs.un.org/goals>
- The Carbonauts online training modules <https://www.thecarbonauts.com/store/p/carbonauts-in-training>
- Journey 2050 –online food sustainability programs <https://www.journey2050.com/>
- The Regional District of the North Okanagan
- Vernon Diversion and Disposal Facility
- The City of Vernon Climate Action Plan <https://www.vernon.ca/homes-building/environment-sustainability/climate-action>
- City of Vernon Water Reclamation Centre
- Local businesses who are involved with zero emission energy and transportation technology
- Local government officials who have insight into public policy decisions
- Local educators at the college and university level who are running similar programs
- Okanagan Sustainable Development Challenge <https://sustainabledevelopmentchallenge.com/>
- BC Agriculture in the Classroom Foundation <https://www.bcaitc.ca/homepage>

- Seventh generation sustainability thinking <https://www.cbc.ca/news/science/what-on-earth-indigenous-seventh-generation-thinking-climate-action-1.5882480>

Additional Information:



BOARD/AUTHORITY AUTHORIZED (BAA) COURSE FORM

PART A: BAA COURSE VERIFICATION STATEMENT – To be completed by District Superintendent, Independent School, or Offshore School Principal

Prior to submitting the attached BAA Course Framework to the Board of Education or Independent School Authority (Board/Authority) for approval, I Dr. Christine Perkins, Superintendent verify that I have reviewed the BAA Course to ensure that it is fully compliant with the *School Act* (if offered by a Board or Offshore School), the *Independent School Act* (if offered by an Independent School Authority), the *Board Authorized Course Order*, policy document *Board/Authority Authorized Courses: Requirements and Procedures Guidebook*, and for BAA ELL courses, the ELL Guidelines: *Language Acquisition/Culture Courses at the Grade 10, 11*

By signing below, I verify that the BAA Course:

- ✓ is not preparatory, remedial, or modified
- ✓ does not significantly overlap with provincial curriculum
- ✓ name reflects the subject area and includes the Grade
- ✓ assigned Grade reflects the appropriate level of instruction
- ✓ credit value appropriately reflects the length and scope
- ✓ synopsis clearly outlines what a student has gained w
- ✓ goals are general statements of intention that give str
- ✓ rationale outlines the importance of the learning to the
- ✓ embeds Indigenous Worldviews and Perspectives
- ✓ organizational structure outlines the Content, Curriculum
- ✓ learning standards are assessable and observable an
- ✓ recommended instructional component clarifies the le
- pedagogical opportunities
- ✓ recommended assessment component aligns with the Principles of Quality Assessment
- ✓ learning resources are age appropriate, support learning standards and diversity of learning rates and styles.

See Contract
for digital
Signed copies

Course Name: BA Sustainable Futures 12

Grade: 12

TRAX Code: YRNR-2B
(e.g. YVPA)

School District Name and Number: School District #22

Independent School Name and Number:

Name of District Superintendent/Independent or Offshore School Principal: Dr. Christine Perkins

Signature:

Christine Perkins

Date:

Feb 21, 2023

☐ Course intended to satisfy the Grade 11 Arts Education/Applied Design, Skills, and Technologies Graduation Requirement.

☐ Course intended to satisfy the Indigenous-focused Graduation Requirement.

☐ For Indigenous-focused Graduation Requirement courses only – Letter(s) from the local First Nation(s) confirming support for/co-development of this course is/are attached to this form.

PART B: BAA COURSE AUTHORIZATION STATEMENT – To be completed by Board/Authority Chair or Designate or Executive Director of Independent Schools and International Education, Ministry of Education

A signed copy of this document must be submitted to Graduation Programs and Policy. The original document and accompanying BAA Course Framework must be retained by the district/school for submission to the Ministry upon request. (*Board Authorized Course Order*, M285/04, s. 3; *Educational Standards Order*, M41/91, s. 5 (2)(c))

☒ I declare that this BAA Course is approved by the Board/Authority or Executive Director.

Name of Board/Authority Chair or Designate or Executive Director of Independent Schools and International Education:

Signature:

Date:

PART C: BAA INSPECTOR CONFIRMATION (FOR INDEPENDENT SCHOOLS ONLY) –

To be completed by Inspector of Independent Schools or Designate during regular inspection/monitoring visit

A signed copy of this document (Parts A and C) must be retained for submission to the Ministry upon request.

The BAA Course noted above is fully compliant with the Independent School Act and the BC Ministry of Education requirements outlined in the policy document *Board/Authority Authorized Courses: Requirements and Procedures*. (*Educational Standards Order*, M41/91, s. 5 (2)(c))

Name of Inspector of Independent Schools or Designate:

Signature:



Date:

Send completed form to Graduation Programs and Policy
Email EDUC.GradStandards@gov.bc.ca