

Course Outline

School Name: Keewaytinook Internet High School

Department Name: Canadian and World Studies

Ministry of Education Course Title:

Living in a Sustainable World, 12

Grade Level: 12

Ministry Course Code: CGR4E

Teacher's Name: Simon Kim

Developed by: Simon Kim Date: September 2016

Revision Date: September 2017

Developed from: The Ontario Curriculum, Grade 11 and 12: Canadian and World Studies, 2015

Text: None

Prerequisite: CGC1D/1P

Credits: 1.0

Length: 110 hours

Principal's Name: Kevin Dempsey

Principal's Approval (signature)



Approval Date: September 11, 2017

Course Description/Rationale

This course examines the impact of human activity on the natural environment. Students will explore the use of natural spaces and resources and the effects of planning decisions and consumer choices on natural systems. Students will apply the concepts of geographic thinking and the geographic inquiry process, including spatial technologies, to investigate practical solutions to environmental issues, enabling them to make more sustainable decisions at home, in the workplace, and in the local community.

Overall Curriculum Expectations

A. GEOGRAPHIC INQUIRY AND SKILL DEVELOPMENT

A1. Geographic Inquiry: use the geographic inquiry process and the concepts of geographic thinking when investigating issues relating to the natural environment and sustainability;

A2. Developing Transferable Skills: apply in everyday contexts skills, including spatial skills, developed through geographical investigation, and identify some careers in which a background in geography might be an asset.

B. SPECIES AND SPACES

B1. Endangered Species and Spaces: identify species and natural places at risk in different parts of the world, and compare approaches that various countries have taken for their protection (FOCUS ON: Spatial Significance; Interrelationships)

B2. Human Impacts on Ecosystems: explain how human settlement and activities alter ecosystems (FOCUS ON: Patterns and Trends; Geographic Perspective)

B3. Ecosystem Characteristics: describe the characteristics of different types of ecosystems, and explain their relationships with the natural processes in the Earth system (FOCUS ON: Spatial Significance; Interrelationships)

C. SUSTAINABILITY OF NATURAL RESOURCES

C1. Strategies and Stewardship Initiatives: assess the contributions of stewardship initiatives by groups and individuals to the sustainable use and management of natural resources, locally, nationally, and globally (FOCUS ON: Interrelationships; Geographic Perspective)

C2. Resource Development and Impacts: analyse impacts and issues related to the development and use of natural resources (FOCUS ON: Interrelationships; Geographic Perspective)

C3. Distribution and Use of Natural Resources: analyse patterns and trends in the availability and use of natural resources (FOCUS ON: Spatial Significance; Patterns and Trends)

D. ECOSYSTEMS AND HUMAN ACTIVITY

D1. Protecting the Natural Environment: assess the role of various strategies, organizations, and agreements in reducing the impact of human activity on the environment (FOCUS ON: Interrelationships; Geographic Perspective)

D2. Impacts of Human Activities: analyse impacts of human activities on ecological processes and on plant and animal species (FOCUS ON: Spatial Significance; Interrelationships)

D3. Ecological Processes: explain how various ecological and biological processes sustain life on Earth (FOCUS ON: Patterns and Trends; Interrelationships)

E. COMMUNITY ACTION

E1. Working Together: assess the contribution of various individual, workplace, and community initiatives to reducing the human impact on the natural environment (FOCUS ON: Interrelationships; Geographic Perspective)

E2. Ecological Footprints: assess impacts of human behaviour on the natural environment (FOCUS ON: Patterns and Trends; Interrelationships)

E3. Community Infrastructure: assess environmental impacts of various types of infrastructure, systems, and services at the community and regional levels, and assess ways of reducing these impacts (FOCUS ON: Spatial Significance; Interrelationships)

Course Content

<i>Unit</i>	<i>Length</i>
Species and Ecosystems	27
Natural Resources and Sustainability	27
Human Activity and Ecosystems	28
Taking Action in the Community	28
Total	110 hours

Unit Descriptions

Unit 1: Species and Ecosystems

This introductory unit in the course will set the stage for the other sections by looking into the topics of 'endangered species and spaces,' 'human impacts on ecosystems,' and 'ecosystem characteristics.' Humans have always had a tremendous impact on the natural world and it is important for us to make sure what we are interacting with it in a positive way, as the earth's various components are always interacting with each other.

Unit 2: Natural Resources and Sustainability

The second unit of the course will look into the sustainability of natural resources. Topics included will be 'strategies and stewardship initiatives,' 'resource development and impacts,' and distribution of natural resources.' With the knowledge that we interact with the natural world, one way in which we do so is by using what we get from the earth as

natural resources. This must be done in a sustainable way and we will look at what strategies are already in place and into the nature of how these natural resources are extracted/harvested and its various impacts.

Unit 3: Human Activity and Ecosystems

The third unit of the course will go into the relationship between human activity and the world's ecosystems. Topics will include 'protecting the natural environment,' 'impacts of human activities,' and 'ecological processes.' The earth is where we live, it sustains all life including our own. As human activity can alter and especially harm the ecosystems on this planet, we must develop strategies to make sure this impact is positive.

Unit 4: Taking Action in the Community

The final unit of the course will draw on what we've learned and set the students on a path of understanding the need to create and maintain a sustainable world. Here, we will focus on community action to meet these goals and the topics will be 'working together,' 'ecological footprints,' and 'community infrastructure.' Just as the world is a collection of ecosystems, people are dependent on the environment, especially in our KIHS communities. As communities, we must work together at the local level to lessen the impact on the environment through adjustments in our behaviour and choices.

The expectations in Strand A. Geographic Inquiry and Skill Development will be interwoven into the activities of the 4 units as the Curriculum describes.

Teaching/Learning Strategies

The course is delivered to students via Internet to computers set up at KIHS classrooms in the communities. Most communication between students and the teacher is done using the Internet connection with the teacher mentor assuming the role as liaison between the course instructor and the student.

The teaching of lessons incorporate the following list of instructional strategies:

- Direct Instruction (online lecture)
- On-line inquiry
- Reading
- Practical Exercise
- Brainstorming
- Research project
- Case study
- Independent study
- GIS - exercise
- Map Interpretation
- Satellite + Aerial Photo

- Statistical Analysis
- Online Presentations
- Predicting

Learning goals will be discussed at the beginning of each assignment and success criteria will be provided to the participants. Assessment tools for the course will use the success criteria - these include rubrics, checklists, and exemplars.

Evaluation

The students' final grade for the course will be determined as follows (Ontario Ministry of Education, 2010):

- Seventy per cent of the grade will be based on evaluation conducted throughout the course. This portion of the grade should reflect the student's most consistent level of achievement throughout the course, although special consideration should be given to more recent evidence of achievement.
- Thirty per cent of the grade will be based on a final evaluation administered at or towards the end of the course. This evaluation will be based on evidence from one or a combination of the following: an examination, a performance, an essay, and/or another method of evaluation suitable to the course content. The final evaluation allows the student an opportunity to demonstrate comprehensive achievement of the overall expectations for the course.

Ontario Ministry of Education. (2010). *Growing success: Assessment, evaluation and reporting in Ontario schools*. Toronto ON: Queen's Printer for Ontario.

Type of Assessment	Category	Details	Weighting (%)	
Term Work (70%)	Knowledge/ Understanding	Knowledge of content (e.g., facts, terms, definitions). Understanding of content (e.g., concepts, ideas, theories, procedures, processes, methodologies, and/or technologies).	13	
	Thinking	Use of planning skills (e.g., focusing research, gathering information, organizing an inquiry, asking questions, setting goals) Use of processing skills (e.g., analysing, generating, integrating, synthesizing, evaluating, detecting point of view and bias) Use of critical/creative thinking processes (e.g., inquiry process, problem-solving process, decision-making process, research process)	19	
	Communication	Expression and organization of ideas and information (e.g., clear expression, logical organization) in oral, written, and visual forms Communication for different audiences and purposes in oral, written, and visual form Use of conventions, vocabulary, and terminology of the discipline in oral, written, and visual forms	19	
	Application	Application of knowledge and skills in familiar contexts Transfer of knowledge and skills to new contexts Making connections within and between various contexts	19	
Final Evaluation (30%)	Culminating Activity	Culminating activity in this course will involve the production of a promotional program using the course content to encourage people in their communities to adopt sustainable living habits. It will draw on all 4 units.	K/U	3
			T	4
			C	4
			A	4
	Final Exam	Written on all the work done in the course. Exam total is 100 marks. Students have 150 minutes to the variety of questions (multiple choice, true/false, short answer, essay)	K/U	3
			T	4
			C	4
			A	4
TOTAL			100	

Assessment/Evaluation Strategies

A variety of assessment and evaluation methods, strategies and tools are required as appropriate to the expectation being assessed. These include diagnostic, formative and summative within the course and within each unit.

Assessment *for* learning and *as* learning is obtained through a variety of means, including the following:

- Teacher observation
- Quizzes
- Personal Communication
- Self-evaluation

Evidence of student achievement (assessment *of* learning) will also be collected from a variety of sources including:

- On-going observations of most consistent work, with consideration given to most recent work.
- Presentations
- Conversations with students
- Assignments
- Tests
- Examinations
- Worksheets

Resources

E-an Zen, Reston. What do we Mean by a Sustainable World? Critical Issues Committee, <http://bcn.boulder.co.us/basin/local/sustain10.html>. Accessed 14 Sept. 2016.

Growing Success: Assessment, Evaluation and Reporting in Ontario Schools. Ontario Ministry of Education Publication, 2010.

Meadows, Donella. Envisioning a Sustainable World. The Solutions Journal, 2012. <https://www.thesolutionsjournal.com/article/envisioning-a-sustainable-world/>. Accessed 14 Sept. 2016.

Operator-In-Training Study Guide. Ontario Municipal Water Association, 2006.

Reubold, Todd. What does a Sustainable Future Actually Look Like? Ensia, 2014. <http://ensia.com/voices/what-does-a-sustainable-future-actually-look-like/>. Accessed 14 Sept. 2016.

Program Planning

This course is being offered to Indigenous students in isolated communities of Northwestern Ontario. The primary method of communication is via the Internet. Students will have direct access at all times to computer technology, communicating with their course teacher online and being mentored by another qualified teacher in each respective community classroom.

The focus of the course is student-centered, and requires students to complete weekly activities in order to progress to each subsequent unit. At all times possible, real-world connections will be made in terms of the tasks and experiences students are asked to complete throughout this course (e.g., while learning mapping techniques, students may be asked to map an outdoor area or the classroom). Any accommodations or modifications that are required throughout this course will be individually addressed as they are made apparent.

Students may also receive support from various programs at KiHS, including the First Nation Student Success Program and the Special Education Program.

Indigenous and local content is used throughout the course to meet students' learning needs. Considerations are made to the learning preferences of the student population and lessons can be adjusted for individual students as required.