# Social & Environmental Sciences
# 2021 – 2022

**Georges P. Vanier Secondary School – Mr. Andrew Young & Mr. David Benton**

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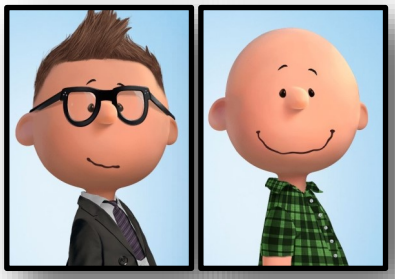

## What Can You Expect in SES 11?

As an ever-increasing world population puts more and more demands on the planet's resources, there is a need for a society that is environmentally literate and therefore able to make informed decisions about the sustainability of the Earth's resources and the future of the planet.

Environmental & Social Sciences (ESS) is an interdisciplinary course which is unique in that it contains various sciences, coupled with a societal viewpoint, all intertwined to help you understand the environment and its sustainability. The science component will include chemistry, biology, and ecology system science at micro and macro levels, while the socials component will deal with social justice, contemporary Indigenous issues and human geography to look at social systems.

Your attention will be constantly drawn to your own relationship with the environment and the significance of choices and decisions that you make in your own life. It is intended that you will develop a sound understanding of the interrelationships between environmental systems and societies, rather than a purely journalistic appreciation of environmental issues.

Ultimately you should develop an informed personal response to the wide range of pressing environmental issues that you will inevitably come to face both in a local and a global context.

The course requires field experiences which will further extend the interrelationships between the environment and societies. The aims and objectives which drive ESS are influenced by the BC Curricular Competencies for Environmental Science 11 and Explorations in Social Studies 11. You will work towards being: critical inquirers; knowledgeable thinkers; creative communicators; principled, open-minded, and caring; risk-takers; and balanced and reflective decision makers.

The course will prepare and challenge you about the multiple aspects, issues, and problems of the physical and human world . There are 4 major units of study. Units of Study include:

**Why is Clean fresh water important?**
**Why are healthy forests essential to life?**
**What are the impacts of a changing Marine Ecosystem?**
**Why are Mountain environments sacred?**

Semester 1
September 2021

| **Mark Breakdown:** | |
|---|---|
| *Projects / Major Assignments* | *25* |
| *Labs* | *20* |
| *Lesson Activities / Minor* | *40* |
| *Active Engagement* | *15* |
| *School / Class Mark* | *80* |
| *Inquiry Project* | *20* |

Physical features and natural resources influence **demographic patterns** and population **distribution**

## BIG IDEAS

Complex roles and relationships contribute to **diversity** of ecosystems

Social justice initiatives can **transform** individuals and **systems**

Analyzing data from a variety of sources allows us to better understand our **globally connected** world.

Humans can play a role in **stewardship and restoration** of ecosystems

Human practices affect the **sustainability of ecosystems**

**Changing ecosystems** are maintained by natural processes.

Indigenous peoples are reclaiming mental, emotional, physical, and spiritual well-being despite the continuing effects of colonialism

## September 2021

| Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|---|---|---|---|---|---|---|
| | | | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | | |

**September's Key questions of Inquiry are based around the overarching question "Why is Clean fresh water important?"**

Week 2 - What is clean fresh water? Topics include chemistry & microbiology of clean fresh water along with social justice and global access to fresh water
Week 3 - Why is clean fresh water important? Topics include water usage/consumption/ competing stakeholders (resource management & competing viewpoints) along with microbiology (freshwater ecosystems and ecology)
Week 4 - How is fresh water managed as a global resource? This is a case study week focusing on the Colorado River Basin – Topics include changing natural and social systems (breadth, depth, duration for municipal, agricultural, and industrial use) also a home water budget for the week.

## October 2021

| Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|---|---|---|---|---|---|---|
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| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 Flex | 28 | 29 | 30 |
| 31 | | | | | | |

**October's Key questions of Inquiry of Inquiry are based around the overarching question "Why are healthy forests essential to life? "**

Week 5- summative Fresh Water management Case Study project (qualitative and quantitative research) proposing realistic solutions to the problem considering all stakeholders involved.
Week 6 – What is a healthy forest? Farm visit! Topics include habitat, structure & Identification, forest use (Indigenous forest use policy vs Forest Practices Code)
Week 7 –Why are forests important? Student Vote Project! Topics include trophic layers, nutrient and energy cycling and systems, Social advocacy, environmental justice & elections
Week 8 – How are forests managed and used? Case Study Borneo and Palm Oil plantations

Last day of Term 1

## November 2021

| Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|---|---|---|---|---|---|---|
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| 14 | 15 | 16 | 17Flex | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | | | | |

**November's Key questions of Inquiry are based around the overarching question "What are the impacts of a changing Marine Ecosystem?"**

Week 9– What is the structure and function of coastal marine ecosystems? Topics include biodiversity by habitat and pelagic layer, human reliance on marine ecosystems along with cooperation and conflict (Tragedy of the commons) Deep Bay Marine Station Visit or Intertidal Transect Field Study
Week 110– How and why are coastal marine ecosystems changing? Kus-Kus-Sum Visit (Project Watershed & KFN) Topics include climate, thermohaline, biogeochemical and microplastic changes and impact
Week 11 – How is the Salish Sea used? Case Study TransMountain expansion plans and JPod
Week 12- summative marine management Case Study (qualitative and quantitative research) proposing realistic solutions to the problem considering all stakeholders involved.

## December 2021

| Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|---|---|---|---|---|---|---|
| | | | 1 | 2 | 3 | 4 |
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| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | 31 | |

**December's Key questions of Inquiry are based around the overarching question "Why are Mountain environments sacred"?**

Week 13 – What is the significance of mountain environments? Topics include changing ecology (structure) with elevation along with the mystery of mountains (origin stories – how myth informs traditional knowledge)
Week 14– How do people use mountain environments? Topics include cooperation & conflict (recreation/industrial) along with impacts, Nivean ecology & water (Mount Washington Mine & Tsolum River Mount Polley – Quesnel Lake & Cariboo River)
Week 15 – What are the effects on human and natural systems of changing mountain environments? Case Studies Jumbo/Mauna Kea/Himalaya/Beaufort Range

## January 2022

| Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|---|---|---|---|---|---|---|
| | | | | | | 1 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 |
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| 16 | 17 | 18 | 19 Flex | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | 31 | | | | | |

GeoInquiry/ Wonder Day

**January's work includes:**

Week 16– Week 18 Eco Inquiry project work (class, lab, learning commons, community)
Week 19 Eco Inquiry Project – in class presentations Jan 24 -26 and publicly during Inquiry fair/discovery day on Jan 27

## Expectations in Social & Environmental Sciences 11


### Attendance

Attendance is extremely important; there are only ***80 double blocks*** to cover an enormous amount of interrelated super complex information! Reading only the blog and online source material will not assure a good grade and will not assure a pass. A great deal of additional material is presented and discussed in every class

### About missing things

Please don't ask, "Will you be doing anything important next class?" — it drives most teachers nuts, us too. Every class is important, otherwise we wouldn't have one. If you decide to cut classes, be prepared to take the consequences. You are all young adults and we will gladly treat you as such; just remember "with great power comes great responsibility". If you are really worried about missing something, make some contacts in class, exchange a few phone numbers, and get together over coffee — trust me it works. **THE ONLY VALID EXCUSE FOR MISSING A LAB OR FIELD STUDY IS ILLNESS OR PARTICIPATING ON AN EXTRA-CURRICULAR TEAM.** If you're going to be absent for this reason, let us know as soon as possible, contact us and leave a message for us (We won't promise to call back, as we work both days and evenings, but we do check e-mail every morning). Due to the amount of participatory work and subsequent marking, late assignments cannot be accepted for full marks – although each student may apply for one grace on assignments only.

### Assignments and Homework

When submitting homework or assignments **include your full name in the top right hand corner**, or if you wish on a cover sheet (include class, title, your name, and date due – centered on the page). **We can not mark nor will we mark a Mr. or Mrs. Nonameypants assignment!** Please type or print clearly, double space if you type or write small, use only one side of the paper. Collate and neatly staple your work together, please no duotangs or binders. **If your paper is not legible, it will be returned as incomplete and marked as late.** Please proof your assignments for spelling and grammar – marks may be lost if we can not understand what you have intended to write – if you require assistance please make use of the Learning Centre.

### Study Habits

Environmental and Social Sciences 11 is an **academic course**, requiring you to keep on top of all your readings, and to regularly review your notes. You should do a daily review of the day's notes, as well as a cumulative weekly review of all your notes. You should also be answering all the key questions as review through the rewriting of notes, cue card making, webbing, mind mapping, personal notes, summary text note taking, practice test making, partner review or some other technique you favour.

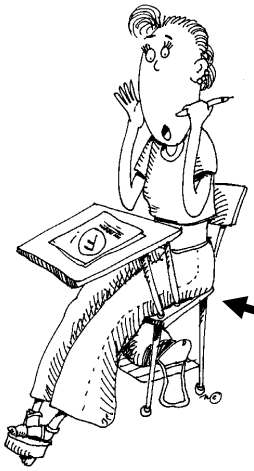
**These are techniques to better understand your material:**

**Learning**

1. Take good notes in your class lectures and textbooks
2. Review your notes soon after class/lecture
3. Review notes briefly before the next class
4. Schedule some time at the end of the week for a longer review

**Reviewing**

1. **Take good notes** about what your teacher tells you
2. **Organize your notes, texts, and assignments**
3. **Estimate the hours** you'll need to review materials
4. **Draw up a schedule** that blocks units of time and material
5. **Test yourself** on the material
6. **Finish** your work on time



**Don't be caught unprepared. To do well on labs and projects you must first learn the material, and then review it before jumping into the deep end of work.**

## What Kind of Work Can I Expect?

There will be a variety of assignments you will be expected to complete.

Expect a minimum of 2 smaller term projects and one large semester long inquiry project. Expect lab and field work. Expect research assignments and be prepared for online multimedia activities. Be ready to create posters and maps, power point presentations, and to work on case studies.

You will be expected to complete daily assignments based on the Key questions of Inquiry that the course is based around.

ABOVE ALL be prepared to read about and discuss the relevant topics that we'll be covering in class.

The weight of class work to Semester Inquiry work is 80/20


Hello Parents!

The Social & Environmental Sciences, (SES), course at G.P. Vanier is a double credit opportunity with a focus on hands-on experiences connected to local and global environmental issues. Since many factors dictate how we run courses, the sequence of topics may shift throughout the semester, however the calendar on page 2 of this course guide gives a great idea of what we'll be covering. For a more detailed breakdown of the curriculum you can always visit (Explorations in Social Studies 11 and Environmental Science 11); **http://www2.gov.bc.ca/gov/content/education-training/k-12/teach/curriculum/english** You may also check out the class blog at **http://youngatvanier.blogspot.com/**

Experiential activities out of the classroom have a beneficial effect in education so we will be taking some opportunities to walk from the school to locations around the school property during class time. There are always different hazards associated with leaving the school building including, but not limited to; dirty clothing, vehicle traffic, wildlife, wet weather and terrain. We expect that all the students listen to instruction and behave as responsible young adults to minimize any safety risks on such ventures. We will also be engaging in several off-campus field trips within the school day, a separate consent form will follow for these activities. All field activities are considered to be an important part of the course and engagement is assessed accordingly. If you would NOT like your child to go on outings around the school, please contact us via our email on the first page.

There will also be a summative project to finish off the semester where the students are to tackle a local environmental issue and will be encouraged to connect with local groups and experts. An outline and more details on this project will follow.

Please sign below to indicate you've had a chance to look over this course overview and feel free to contact us with any questions you may have

Parent(s) David Benton Andrew Young