CURRICULUM MAP

***Revised Sept. 2016***

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| ***School:* OHS** | ***Teacher(s):* Mrs. Côté** | ***Grade/Level:* 120** | ***Discipline:* Environmental Science** |

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| ***Year:*** **2016-2017** | September/October  | October/November | November/December | January |
| ContentThemeTopic Area | **Unit 1: An Overview of Environmental Science**Topics:* What is Environmental Science?
* What are the current issues surrounding Environmental Science?
* What are the worldviews and values surrounding Environmental Science?
* How has the groundwork surrounding human population affected the environment?
 | **Unit 2: Student Audit Project**Topics:* How can our school become more sustainable?
* How can I make a difference in the sustainability of my school?
* How do I use technology and research to better the sustainability of my school?
 | **Unit 3: Sustainable Development** Topics: * What is an ecosystem and what lives within one?
* How does an ecosystem function?
* Why are ecosystems so important?
* What is biodiversity and why is it important?
* What stressors impact ecosystems negatively?
 | **Unit 4: Environmental Issues**Topics:* What environmental issues are of current concern locally as well as globally.
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| Outcomes | Students will have/ be able to:* gain an understanding for what the study of environmental science is and the development of the study.
* demonstrate an understanding of the differences between the expansionist and ecological worldview of the world as well as the range of along the continuum.
* describe basic assumptions underlying alternative world views.
* explore and communicate current understanding of local, regional and global environmental issues and identify links to personal behavior as well as investigate different views of these issues based on cultures.
* identify ways to measure environmental sustainability
* describe and understand growth and shrinking of populations in nature.
* describe the growth of Earth’s human population and the factors that have affected it.
* become aware of the range of environmental issues arising from overpopulation and what the carrying capacity of the Earth is.
* explore the concept of sustainable development
* investigate the development of policies used to protect the environment
 | Students will have/be able to:* demonstrate an understanding of the dynamics of healthy and sustainable ecosystems.
* demonstrate an understanding for the requirements for sustainable human communities.
* understand stewardship in relation to sustainability.
* identify and research an issue within the school regarding sustainability.
* develop an understanding of technology and carry out experiments to test the impact of environmental issues on their community (the school).
 | Students will have/be able to:* demonstrate an understanding of the organization of life.
* demonstrate an awareness and understanding of the energy flow throughout ecosystems.
* demonstrate an awareness and understanding of the chemical cycling (carbon, nitrogen, phosphorous, water and oxygen) that flows through and supports ecosystems.
* describe the dynamics of ecosystems including the role of abiotic and biotic factors, trophic levels, ecosystem structure, ecological niches, limiting factors, and interactions between species.
* demonstrate an understanding of the principles of sustainability and our dependence on intact ecosystems for survival.
* demonstrate an understanding of the relationship between ecosystems locally, regionally and globally.
* distinguish between sustainable ecosystems and sustainable development.
* demonstrate an understanding for what biodiversity is and how it relates to the stability of an ecosystem.
* understand the implications of diminishing populations and biodiversity and the impact on human society as well as the work that has been done to prevent loss.
* investigate the short and long term responses by populations to changing environments.
 | Students will have/be able to:* investigate current environmental issues such as pollution, water and land resource depletion, energy consumption and waste management issues.
* investigate the environmental, social and economic impacts that occur from these issues.
* investigate how these issues can be improved to remain sustainable.
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| Skills***(On-going)*** | - Science literacy skills.- Practice in working as a collaboration of students. - Practice observation skills- Practice research skills.- Practice public speaking and presentation organization skills. |  | - Science literacy skills.- Practice in working as a collaboration of students. - Practice observation skills.- Practice laboratory skills.- Practice research skills.- Practice public speaking and presentation organization skills. | - Science literacy skills.- Practice in working as a collaboration of students. - Practice observation skills.- Practice research skills.- Practice public speaking and presentation organization skills. |
| Assessment***(On-going)****Formative & Summative* | Activities/Exploratory Learning , Article Investigations, Quizzes, Assignments, Journal, teacher created worksheets, Unit Test, Final Exam |  | Activities/Exploratory Learning , Article Investigations, Quizzes, Assignments, Journal, teacher created worksheets, Unit Test, Final Exam | Activities/Exploratory Learning , Article Investigations, Quizzes, Assignments, Journal, teacher created worksheets, Unit Test, Final Exam |
| Key Resources | - Environmental Science 12 Consolation Curriculum (Sept 2010).- Environmental Science Textbook- Science 10 - Nelson- Related Websites.- Related articles.- SMART Board |  | - Environmental Science 12 Consolation Curriculum (Sept 2010).- Environmental Science Textbook- Science 10 - Nelson- Related Websites.- Related articles.- SMART Board | - Environmental Science 12 Consolation Curriculum - Environmental Science Textbook- Science 10 - Nelson- Related Websites.- Related articles.- SMART Board |