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. |
| 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. |
| 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 |