Welcome to Environmental Science! This course is divided into 4 units looking at basic physical processes of the earth and human influence/impact on these processes. We will also be practicing and developing effective research, writing, reading and practical laboratory skills as we study the earth and how we affect it. At the conclusion of this course, you should have gained a thorough understanding of the human impact on the various Earth's systems.

Course Description:

The goal of Environmental Science course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them. Although Environmental Science is interdisciplinary, there are several major unifying constructs, or themes, that are covered in the course. The following themes provide a foundation for the structure of the AP Environmental Science course.

1. Science is a process.
   o Science is a method of learning more about the world.
   o Science constantly changes the way we understand the world.
2. Energy conversions underlie all ecological processes.
   o Energy cannot be created; it must come from somewhere.
   o As energy flows through systems, at each step more of it becomes unusable.
3. The Earth itself is one interconnected system.
   o Natural systems change over time and space.
   o Biogeochemical systems vary in ability to recover from disturbances.
   o Humans have had an impact on the environment for millions of years.
   o Technology and population growth have enabled humans to increase both the rate and scale of their impact on the environment.
5. Environmental problems have a cultural and social context.
Understanding the role of cultural, social and economic factors is vital to the development of solutions.

6. Human survival depends on developing practices that will achieve sustainable systems.

- A suitable combination of conservation and development is required.
- Management of common resources is essential.

To achieve these goals, we will focus on the following, students will:
- Conceive and develop experimental design;
- Develop methods for analyzing and interpreting mathematical calculations, understand the unifying themes that integrate all biological and environmental science topics;
- And the apply knowledge and critical thinking to environmental and societal concerns.

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<tr>
<th>Teacher Information: Mike Bauer</th>
<th>Course Website: <a href="https://onenessfamilymoodle.com">https://onenessfamilymoodle.com</a></th>
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<tbody>
<tr>
<td><a href="mailto:mike@onenessfamily.org">mike@onenessfamily.org</a></td>
<td>Select Environmental Science</td>
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Technology

You are expected to bring your computer with you to class, completely charged, every day! Technology is incorporated into the course on a daily basis. This course uses Moodle, an online space for course materials. Here you will find sources such as flip charts, notes, instructional materials, supplemental readings, assignment/project descriptions, rubrics, etc. Moodle may also be used for submission of many assignments. In addition, you will be required to utilize technology on a regular basis in your research for the course and to complete a variety of assignments and assessments.

Electronics

NO use of headphones, iPods, cell phones, ear buds, or other electronics in classroom, unless otherwise specified by me (i.e. for instructional purposes). When students enter the classroom, all electronic devices must be put away. I reserve the right to remove any disruptions to learning, including but not limited to, students’ cell phones.
Course Overview

Course Units:

- The Living World (10-15%) Ecosystem Structure, Energy Flow, Ecosystem Diversity, Natural Ecosystem Change, and Natural Biogeochemical Cycles.
- Population (10 – 15%) Population Biology Human Population History, Birth Rate, Death Rate, Demographic Transition, age-structure diagrams Population size and impact of population growth
- Land and Water Use (10 – 15%) Food and Agriculture Forestry Rangelands Other Land Use (Urban development, transportation infrastructure, Public and Federal lands, Land conservation) Mining Fishing Global Economics
- Pollution (25-30%) Human Health and Toxicology Pollution types Air, Noise, Water, Solid and Toxic waste Economic Impacts
- Global Change (10-15%) Stratospheric Ozone Global Warming Loss of Biodiversity

Essential Agreements

1. Follow the policies outlined in the student/family handbook, as they all apply to this classroom. You know what actions are appropriate for a classroom setting and what actions are not.
2. Help create a classroom atmosphere of respect. The study of the past requires us to investigate numerous topics and consider varied opinions and perspectives. Every individual in this classroom should feel free to express his/her ideas without fear of ridicule or judgment. Respect yourselves, your peers, and your school.
3. Be responsible. It is up to you to take charge of your own learning and behavior.
4. Come to class prepared. Please bring your folder/notebook, pen/pencil, textbook(s), and completed assignments to class each day.
5. Be aware. Before leaving class for the day, make sure you have recorded information regarding homework and long-term assignments as well as other important announcements.
6. Actively participate in classroom activities and lessons.
7. Be confident. Each of you is capable of achieving great success in this course. Believe in your abilities and your potential to be a successful learner!
8. Come talk to me! If you ever have any questions or need help, do not hesitate to stop by and see me. I will be available both before and after school to discuss any issues or questions. We may also set up a time that is convenient for all involved. I can be reached at mike@onenessfamily.org

Here is what you should expect of me:

1. To provide you with timely, detailed, and constructive feedback regarding your work.
2. To maintain organized grades and classroom materials.
3. To respect your ideas, opinions, viewpoints, and needs.
4. To provide you with clear directions, rules, and expectations to guide your learning.
5. To be available for communication and collaboration with you and your parents/guardians.

Discipline

When the school’s behavior guidelines or agreements are violated, the following general steps are followed:
1. There is communication with the student
2. There is communication with the parent
3. A written record is kept as a marker; and a conference with a parent is set up if necessary
4. A discipline slip serves as a more serious marker.
5. Suspension, Expulsion and/or Recommended Withdrawal

Grading Policy

Your grade for this course will be earned based on a variety of assessments including, but not limited to, quizzes, tests, homework, writing assignments, in-class activities, projects, etc. Please make sure you turn in all of your work on time. Submitting late work will significantly impact your grade. Students will not be tested or required to hand in assignments on the day the student returns from school if they were assigned on the day the student was absent. Students shall adhere to deadlines for tests and projects that were established/assigned prior to the absence.
Students have equal to the number of days absent for make-up work, test, assignments, reports, etc., up to a maximum of five (5) days without penalty.

Late Policy:

There will be a 10% deduction from the score of an assignment, when an assignment is submitted late. An assignment is considered late if it is not submitted at the time of collection.

Grading Scale:

A= 90-100
B= 80-89
C= 70-79
D= 60-69
E= 0-59

Academic Honesty

Your grade is a reflection of your skills, knowledge, and understanding of the course content. Therefore, any work that is not your own will not be accepted or assessed. Cheating or plagiarism of any kind will result in a 0% for the assignment. This includes homework, daily-in class assignments, writing assignments projects, quizzes, and tests. Assignments that required you to use additional resources (books, websites, photographs, etc.) must be properly cited to submit with your work.

Attendance

Attendance is important to student success. All work (in-class and homework) must be made up when a student misses school for any reason—including excused trips. Students going on excused trips must get the assignments BEFORE leaving on their trip, and it is due the day they return to school from their trip. It is the expectation of the teacher that she will be notified of the trip at least a week in advance. Students who are absent from class for ANY reason (field trip, vacation, sports, etc.) are responsible for talking with me to find out what they missed. If a student is in school, but misses history class (sport, appointment, etc.), the student MUST see me beforehand to submit that day’s homework and to find out what he/she will be missing in class. If the student doesn’t do this, the assignments given and collected on that day will be considered late.
The student will need to arrange to make-up missed assessments. (tests, quizzes, etc.)

Formative & Summative Assessments

*Formative Assessments*: Formative assessments are those that need to be completed to demonstrate progress and/or the need for additional practice or instruction. *Failure to complete formative assessments will be reflected in a student’s overall grade.*

*Summative Assessments*: Summative assessments are those that need to be completed to demonstrate mastery of the subject, content, or skill. *Failure to complete summative assessments will be reflected in a student’s overall grade.*

*The late policy (10% deduction) applies to ALL assessments/assignments, this includes both formative and summative work.*

**Grade Percentages**

*Marking period grades are calculated for this course using the following categories and percentages.*

*Homework: 10% Formative Assessments*

*Daily (in-class) Assignments/Activities: 20%*

*Projects, Research & Writing Assignments: 30%*

*Tests/Quizzes/Exams: 35%*

**Final Exam**

*This course also includes a final course examination, which is cumulative, encompassing all subjects and topics studied from throughout the course.*

I am looking forward to a great year! :)