**Environmental Science Course Syllabus**

**2018-2019**

**Course** **Title**: Environmental Science

**Textbook**: Holt Environmental Science by Arms (provided)

**Teacher:** Elana Youssef

**Contact Information:**

**e-mail:** eyoussef@pway.org **(preferred method)**

**phone number:** 732-338-9769 **(text only)**

**office hours:** before and after school by appointment **only in advance**

**remind101:** Text your code to 81010

**Period 1:** @4642b66

**Period 5:** @bg26c4

**Course Description:**

This Environmental Science program of study is designed for 11th and 12th grade high school students as an elective course. The goal of the 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.

Environmental science is interdisciplinary; it embraces a wide variety of topics from different areas of study. There are several major unifying constructs, or themes, that cut across the many topics included in the study of environmental science. Students will also be crosscutting concepts from earlier grades, therefore, prior knowledge is required. You will be challenged with current research and applications, use scientific methods to search for conclusions, and focus on the similarities that link all life forms. Laboratory exercises and cooperative learning activities will strengthen team work and the sharing of ideas, while individual projects will provide incentive for personal research and reflection. *The methods and philosophy of classroom experiences follow the NGSS (Next Generation Science Standards) which incorporate Science and Engineering Practices, Cross-Cutting Concepts, and Disciplinary Core Ideas.*

**General Course Content:**

Unit One: Introduction to Environmental Science

Unit Two: Ecology

Unit Three: Populations

Unit Four: Water, Air, & Land

Unit Five: Energy Resources

Unit Six: Geosphere

Unit Seven: Human Activity & Sustainability

General Course Content Continued:

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| Unit | Chapter | Title & Scope | Teaching Days  (approximate) |
| I | 1 | Introduction to Environmental Science   * Understanding our environment * The environment and society | 7 teaching days  \*10 school days |
| II | 4, 5, 6, & 7 | Ecology   * Ecosystems/Energy flow in ecosystems * How ecosystems change * Biomes/Freshwater and Marine ecosystems | 9 teaching days  \*12 school days |
| III | 9 & 10 | Populations   * Studying human populations/Changing population trends * What is biodiversity? | 6 teaching days  \*9 school days |
| IV | 11, 12, 13, & 15 | Water, Air, & Land   * Water use, management, and pollution * What causes air pollution * Acid precipitation \*The ozone shield * Global warming \* Feeding the world | 15 teaching days  \*21 school days |
| V | 17 & 18 | Energy Resources   * Fossil fuels, Nuclear ,Renewable energy * Alternative energy and conservation | 7 teaching days  \*10 school days |
| VI | 3 | Geosphere   * Plate tectonics * Composition of atmosphere * Earth as a system/history and   how life changed | 10 teaching days  \*14 school days |
| VII | 14 & 16 | Human Activity & Sustainability   * Land/Mining and mining resources | 5 teaching days  7 School days |

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| **Classroom Rules, Expectations & Grading Policy**  **Instructional Materials**: Students need these **SUPPLIES** **EVERY DAY**:   * **Pencil** with **eraser** * **BLACK OR BLUE** pen * **3-Ring Binder** dedicated to this class (at least 1 inch) * **Completed Homework** from the night before (checked every day) * **Student Planner /Agenda** to record assignments * **Other supplies** may be required during the school year (ex: index cards, construction paper, art supplies, posters, ect.)   **Classroom Behavior Expectations**: Remember **PRIDE**    **P – Be Prepared: have binder & writing utensil with you at the start of each class ready to work**  **R – Be Respectful: treat others the same way you want to be treated – be kind and helpful**  **I – Be Independent: Make sure you know what to do and be responsible for getting it done**  **D – Be Dedicated to Safety: talk and behave in a way that keeps you and others safe**  **E – Be empathetic: think what the other person feels and act to make all around you feel comfortable**  **For most infractions the course of action will be as follows:**   1. verbal warning/speak after class 2. after school teacher detention/speak after school with a call home 3. referral to your respective administrator   **\*There are exceptions for more severe cases.**  **CellPhone Policy:**  Cellphones use is at the discretion of the teacher. Cell phones should be visible to the teacher on the desk in front of you at all times and may only be used when told to by the teacher. Misuse of cell phones will have consequences as described above.  **Lab Safety Rules will be reviewed in class separately.** |
| **Homework/Classwork Policy:**  Homework and home reading/activities is a **very important part of our class**. Homework shows us whether students understand and helps us change our teaching quickly if students don’t understand..  Homework will be announced during class. Homework may include readings, webquests, labs, graphs, presentations, and other activities. At times, uncompleted classwork may be assigned for homework as well.  If students have **questions** about homework or classwork, there are 4 main ways to **get help**:   * They can **stay after school** (by appointment) * **E-mail** teacher * Check **resources page** found on teacher website   Students are expected to do homework in a timely fashion, **no homework will be accepted late without preapproval from teacher or special circumstances**.  **Absences:**  **Homework/Classwork:** If a student knows he/she will be absent, please let the teacher know. If a student misses a school day **it is his/her responsibility to ask the teacher for missing work.** Students will be given **2 days for each day absent** **to complete missed work.** No work will be accepted past this time without approval from the teacher.  **Tests/Quizzes:** If a student knows he/she will be absent, please let the teacher know. If a student misses a test or quiz, he/she is required to make it up **the day they return.** Exceptions **may be given in advance via email** if a student was absent any day(s) prior to the test/quiz. |
| **Late work/Late to class:**  Late work is any work past due date. Most late work will receive **10% off each day it is late**. **Some projects over the course of the year may have a different policy**, this will be made clear at the time the assignment is given. See above for late Homework!  Students are expected to be on time for class. Students arriving late to class will result in a loss of class participation points.  **Lab Make-ups:**  Students who are absent for labs will be required to stay after school or at times complete a virtual lab at home. Lab make-ups must be completed **within 3 school days upon student returning to school**.  **Evaluation of Student Learning:**   |  |  | | --- | --- | | Test / Quiz, Summative Assessments | 40% | | Labs / Classwork / Projects (includes do now/exit slips)  Class Participation, Formative Assessments | 40%  10% | | Homework, Current Event Articles | 10% |   **Piscataway High School**  **Academic and Behavior Plan- Miss Youssef**  **Contact Information**  Parent/Guardian Names \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Best Phone Number(s) (home or cell?) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Best Time of Day to Call \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Preferred Language? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Parent e-mail? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Student e-mail? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   |  | | --- | | **Please tell Me! Questions about the syllabus? Please provide below and I will get back to you via email!**  You can write them in your language, in English, or have your student write them for you in English.  Your Email: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | **I understand the expectations in the Biology Behavior and Academic Plan. Parent/Guardian: I have completed and submitted the questions sheet attached.**    \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  STUDENT Signature DATE  **I understand the expectations and have discussed them with my student.**  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  PARENT/GUARDIAN Signature DATE |   **Questions for Parent/Guardian from Miss Youssef:**   1. What do you hope will happen for your student this year in our school? 2. What are your goals or expectations for your child in Biology this year? 3. What are your child's strengths? What do they enjoy? 4. What does your child find challenging? 5. If a meeting is necessary, will you require an interpreter? If yes, what language? 6. If meeting is necessary, what day/time is best for you? 7. Is there anything else I should know about your child that you think I would find helpful? |