A. Description

Environmental science analyzes the various interactions that are taking place between modern humans and their environment. It places special emphasis on our need for and use of energy and mineral resources. The course develops the ecosystem concept and the basic laws that govern energy/resources use. This course examines the environmental and socioeconomic impacts of large-scale energy development and mineral use. The course places emphasis on direct student involvement in specially designed classroom tested laboratory activities and field studies.

B. Organization

This course is structured to be a lecture-lab course with topics being presented through the use of many different types of media and supplemented by hands on lab instruction and investigation. Teacher demonstrations and group activities will also increase interest and learning. In class assignments, homework, quizzes and labs will be assigned by the instructor with a unit exam following completion of each unit and a semester final exam.
C. Course Objectives

In accordance with Chapter 112 of Texas Essential Knowledge and Skills for Science Subchapter C High School:

1. The student will conduct field and laboratory investigations using environmentally appropriate, safe, and ethical practices through scientific methods while using critical thinking to solve scientific problems and make informed decisions.
2. The student will collect data, make measurements with precision, express and manipulate chemical quantities using scientific conventions and mathematical procedures.
3. The student will organize, analyze, evaluate, make inferences, predict trends from data and communicate valid conclusions.
4. The student will evaluate the impact of research on scientific thought, society, and the environment and describe the connection between environmental science and future careers.
5. The student will differentiate between biotic and abiotic factors within habitats, ecosystems, and biomes.
6. The student will evaluate the impact of human activity such as pest control, hydroponics, organic gardening, or farming on ecosystems.
7. The student will identify source, use, quality, and conservation of water.
8. The student will document the use and conservation of both renewable and non-renewable resources.
9. The student will investigate and explain the effects of energy transformations within an ecosystem.
10. The student will summarize methods of land use and management.
11. The student will relate carrying capacity to population dynamics.
12. The student will analyze and describe the effects on environments of events such as fires, hurricanes, deforestation, mining, population growth, and municipal development.

D. Course Topics

1. Natural resources
2. Environmental quality
3. Science and technology in local, national and global challenges
4. Population growth
5. Interactions in the ecosystems
6. Habitats and niches
7. Ecological pyramids
8. Biomes
9. Chemical cycles
10. Adaptation of species
E. Text and Required Supplies

1. Textbook: Environmental Science
2. Class supplies: notebook, pen and paper
   Lab supplies will include two 3L empty bottles for Eco Bottle project

F. Grading Plan

Grade percentages are in accordance with local grading policy and work done in this course will be weighted as stated below:

**Six Weeks Grades**
- Minor Assignments 40%
  (In Class Assignments, Homework, Quizzes, and Labs)
- Major Assignments 60%
  (Unit Exams and projects)

**Semester Grades**
- Six Weeks Grades 27.27% for each six weeks (27.27% x 3 = 81.81%)
- Semester Finals 18.19%

\[
81.81\% + 18.19\% = 100\%
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**Minor Assignments:**
These assignments will include some in class daily assignments, quizzes, labs, and notebook checks. A minimum of eight grades will be recorded in this category each six weeks.

**Major Assignments:**
These assignments will include some curriculum based assessments, unit exams, and a variety of projects, including a field trip to Galveston and Houston for two major projects. There will be a minimum of three recorded grades in this category each six weeks.

**Semester Final:**
The semester final will be a comprehensive curriculum based assessment and will be administered according to the schedule that is released at the end of the semester.

**Late Work:**
Assignments will be accepted for one day after the teacher has notified the student that the assignment is late with the maximum possible grade being 70%. It is required that late work be submitted directly to the teacher. It should NOT be placed in a mailbox or under a door. In the event of excused absences the make-up work policy described in the student handbook will be used. It is the student’s responsibility to request make-up work and schedule any make-up test after absences. Work will only be accepted for the allotted amount of time provided by the
teacher when make-up work is assigned. After that time has passed late work policies will be enforced.

G. Attendance
Missed labs will be made up on Monday or Thursday afternoons. It is very important to schedule appointment when possible during another time. Attendance is an important aspect of student success. Research has demonstrated that student success and class attendance are directly correlated therefore students are expected to attend class on a daily basis. The districts attendance policy is available for viewing at http://www.palestineschools.org.

H. General
Students recorded grades are available for your viewing at a time that is convenient for you. If a parent is interested in reviewing a student’s grades and attendance record online through Skyward Family Access they should request the web address and password from the main office.

Academic dishonesty includes cheating, copying the work of another student, plagiarism (whether intentional or unintentional), and any unauthorized communication between students during examinations. The determination that a student has engaged in academic dishonesty shall be based on the judgment of the classroom teacher or other supervising professional employee, taking into consideration the written materials, observation, or information from the students. Students found to have engaged in academic dishonesty shall be subject to disciplinary and or academic penalties.

I. Classroom Rules of Conduct

1. All safely rules will be strictly enforced. Failure to follow safety guidelines will result in removal from the lab.
2. Students are to respect all members of the classroom community.
3. Students should come to class prepared to learn.
4. Students will be counted tardy if they are not in their assigned seat when the bell rings. After fifteen minutes a student is counted absent.
5. Students should always put forth their very best effort.
   FAILURE IS NOT AN OPTION!!

J. Emergency Procedures

Evacuation procedures are posted in the classroom and should be followed when deemed necessary. First aid kits are available in the classroom and after initial care the student will be referred to the school nurse.

K. Suggestions for Success

The best way to predict your future is to create it!!