

**Environmental Science**

McCormick High School

**Coach Rothell**

**E-mail Address:** nrothell@mccormick.k12.sc.us **Planning Period:** 1st

**Prerequisites:** Biology **Length of Course:** Semester

**Grade Level:** 10th-12th**Credits Earned:** 1 Unit

**Materials:** 3-ring binder with pockets, 10 dividers, loose-leaf paper, black/blue pen, and a pencil

**Course Description:**

This course is designed as an inquiry and investigative course. In Environmental Science we will be assessing the world around us in respect to both biotic and abiotic factors. Students will investigate and discover the functions of all aspects of the biosphere and the energy that drives it. Environmental Science will ask students to think on a deeper level and to use inquiry skills to help students put their observations into a working knowledge.

**Course Objective:**

The objective of this course is for students to be able to demonstrate an understanding of different ecosystems within their local area and of other parts of South Carolina. The expectation is that students will be able to discuss, outline, and demonstrate ideas and concepts learned in Environmental Science.

**Expectations of Class Participants:**

This class is designed to look at the various components of the ecological world. As a student, you will enhance your knowledge of terms and processes involved in the ecological aspects of our world. You will also gain insight as to how these processes can be seen on a daily basis and the effects of each within our environment. Socially, I would hope that you will, through your newly acquired knowledge, gain a higher respect for the presence of science around you, and in doing so, contribute to the preservation of ecology and related aspects.

**Student Evaluation:**

Major Grades: 60 %

Minor Grades: 40%

\*Major grades will be defined as tests, Projects, and Labs. All other assignments, unless stated otherwise, will be categorized as minor assignments.

**Additional Information:**

\*All students will take a final exam at the end of each semester, which will count as 20% of the semester average.

**All missed work must be made up within 5 school days of absence. If you are absent for more than one week, you will have as many days as you were absent to make up any missed work. If you fail to come and set up an appointment to make up work within this time frame, you will receive a zero for the assignment(s).**

**LATE WORK will be accepted for TWO DAYS past the due date with a 20% reduction. Makeup work will be accepted up to a week late with a 50% REDUCTION I N GRADE. A zero will be given for assignments not turned in within a week of the due date. It is essential to success in Environmental Science to complete all assignments and turn them in on time.**

**CHEATING WILL NOT BE TOLERATED IN THIS CLASS! If you are caught cheating, all parties involved will receive a zero on the assignment and a discipline referral. Do not receive a zero because you allowed someone to copy your work. Unless otherwise stated, each homework, classwork, test, project and quiz is to be completed INDIVIDUALLY.**

**EXPECTATIONS** for Student Behavior in the Classroom

1. **Respect yourself and others.**
2. Be on time (You must be in your seat when the tardy bell rings, not on your way!!)
3. **ABSOLUTELY NO FOOD OR DRINKS ARE TO BE CONSUMED IN THIS CLASS!!!**
4. Go to the restroom before class.
5. Make an attempt at all activities and be willing to contribute.

**CONSEQUENCES** for Violation of Rules

1. Conference after class
2. Call to parents/ Discipline Referral

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| **Course Content** | |
| **Unit Focus/Title** | **Unit Activities** |
| Scientific Inquiry & Lab Safety | Lab Safety Review  Lab Safety Test  Inquiry Cube Lab  Solve the Maze Lab  Zonal Map of SC Webquest |
| The Cycling of Matter | Water Cycle Lab  Nitrogen Cycle Modeling  Carbon Cycle Modeling  Environmental Cycling Web |
| The Flow of Energy | Forms of Energy Concept Map  Energy Transfer Lab  Energy in the Environment Worksheet  Cycling of Energy Web |
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| Resource Consumption | Renewable vs. Non Renewable Resource Puzzle  Oh Deer! Game  Build a Vehicle Project |
| Hydrology in the Environment | Watershed Inquiry Investigation  Water and Erosion lab  Life in Water Creative Writing Assignment  Water in Agriculture Investigation  Savannah River Plant Case Study |
| Soil and Land Use and Misuse | Karst Formation Case Study  Soil Lab  Old Sock Lab  Erosion lab  Farmland Cycles |
| The Atmosphere | Layers of the Atmosphere Foldable  Greenhouse Gas Lab  Acid Rain Investigation |
| Life on Earth | Colonize SC Activity  Chasing Coral Activity  Pros and Cons of Animal Resources  Ecosystem Livability Project  Extinction Case study |
| Human Growth and Impact | Human Population Growth Graphing Activity  What Will Happen if the Polar Ice Caps Melt? - Activity  Ocean Acidification Map  Plastic or Planet Pinterest Project  Plastic Consumption Activity |
| Conservation | Oil Spill Lab  Phoenix Garden Project  Capstone Project- Where do we go from here? |