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*Codes will be posted over the summer.*

*Google Classroom 3rd:   Google Classroom 4th:   Remind Code:*

## **TEACHER AVAILABILITY**

Dr. Tomlinson is available to meet with students during lunch. Students can reach out for assistance by using the messaging option on the class website, through the Remind app or by email. If we need to meet at a time other than lunch please schedule an appointment.

## **SUPPLIES NEEDED**

- 2-3 Expo Markers
- Ring Binder
- Black, non-smearing, ink pen
- #2 Pencils
- Journal - Grid Line Ruled

## **BYOD**

Bring Your Own Device, or BYOD, is a program through which students who opt in will be allowed to bring their own technology device to school for academic use. Students are not required to bring in a device, but if they choose to do so, will register their device with the school & use the WAKE-BYOD Wi-Fi access point.

## **BEHAVIOR EXPECTATIONS**

- Be on time, task and target
- Be responsible and always show integrity
- Be respectful to the space and people around you
- Keep a positive attitude and have fun!

## **VOLUNTEER SERVICE HOURS**

Each student will complete 5 hours of service in an area related to Environmental Science. Volunteering to help with recycle, composting (when available), stream clean up (<https://tinyurl.com/y6gdu2rr>), or other activities discussed in class.

## **GRADING POLICY**

In the Wake County Public School System, we are committed to maintaining rigorous performance and achievement standards for all students and to providing a fair and consistent process for evaluating and reporting student progress that is understandable to students and their parents and relevant for instructional purposes.

We believe that a grade is a fair and consistent measurement that gauges student mastery of learning objectives. Their purpose is to communicate to all stakeholders a student's level of understanding about established objectives. We believe achievement should be communicated separately from information about student's effort and behavior.

### **Grading Scale**

Major Assessments: 75%

Minor Assessments: 25%

Major Assessment includes exams. Minor Assessments include quizzes. Projects and lab write-ups may count as either, students will be notified prior to the assignment whether or not the work will count as major or minor. Grading Scale for Formative Assignments

Formative assignments are designed to give students practice and to provide a way for me to assess the student's level of mastery. The grades on formative assessments will not count toward the student's final grade. The assessments allow us to determine how well the student has mastered the objective and provides info on what to do next.

Mastery Level	Score	Next Action
Mastery	4	100% Move on to next topic
Proficient	3	90% Identify incorrect answers and reasons why, discuss with other members of group, clear with teacher to move on
Pathway Required	2	70-89% Identify incorrect answer, complete additional assignment, submit to teacher for permission to advance
Remediation	1	LT 70% Re-teaching with teacher

All students are now on the following 10 point grading scale below.

A = 90 – 100

B = 80 – 89

C = 70 – 79

D = 60 – 69

F = 59 – 0

I = Incomplete

WF = Withdrawal with an F

FF = Failure due to absences

### ***District-wide expectations for homework assignments:***

- The teacher will introduce a concept or skill, thoroughly explain the concept or skill, and provide guided practice before making a related homework assignment.
- Homework assignments shall be specific, within the student's ability and have clearly defined expectations.
- Questions pertaining to the completion of a homework assignment should be answered and clarified.
- Homework assignments are not to be given as punishment or busy work.
- Homework assignments will not require the use of books or materials, which are not readily available in the home or accessible to the student.

**District-wide expectations for missed work:**

If the absence is approved in advance and/or if the work is assigned by the teacher in advance, all make-up work, including tests assigned for the day of return, is due upon the student's return to school. Teachers should use discretion and may make exceptions in the case of students whose excused absences were not planned in advance, were beyond the student's control, and the nature of which would not support make-up work the day of return.

If the make-up work has not been assigned in advance, for absences of one (1) to three (3) days, the student will have one day for each day absent. For absences exceeding three (3) days, the student may have two (2) days for each day absent to make up work. Special consideration will be given in the case of extended absences due to injury or chronic illness.

## **COURSE CURRICULUM OVERVIEW**

This course is approved by the College Board and meets all the requirements established by the College Board.

*“AP Environmental Science provides 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. Yet there are several major unifying constructs, or themes, that cut across the many topics included in the study of environmental science. The following themes provide a foundation for the structure of the AP Environmental Science course.”*

### **Four Big Ideas**

- Energy Transfer
- Interactions Between Earth Systems
- Interactions Between Different Species and the Environment
- Sustainability

### **The course covers the following topics.**

1. Living World Ecosystems 7d
  - Terrestrial Biomes, Aquatic Biomes, Carbon Cycle, Nitrogen Cycle, Phosphorus Cycle, Hydrologic Cycle, Primary Productivity, Trophic Levels, Energy Flow and the 10% Rule, Food Chains and Food Webs
2. Living World Biodiversity 6d
  - Ecosystem Services, Island Biogeography, Ecological Tolerance, Natural Disruptions to, Ecosystems, Adaptations, Ecological Succession
3. Populations 6d
  - Generalist & Specialist Species, K-Selected & r-selected Species, Survivorship Curves, Carrying Capacity, Population Growth & Resource Availability, Age Structure Diagrams, Total Fertility Rate, Human Population Dynamics, Demographic Transition
4. Earth Systems and Resources 6d

-Plate Tectonics, Soil Formation & Erosion, Soil Composition & Properties, Earth's Atmosphere, Global Wind Patterns, Watersheds, Solar Radiation & Earth's Seasons, Earth's Geography & Climate, El Nino & La Nina

5. Land & Water Use 10d

-The Tragedy of the Commons, Clearcutting, The Green Revolution, Impacts of Agricultural Practices, Irrigation Methods, Pest Control Methods, Meat Production Methods, Impacts of Overfishing, Impacts of Mining, Impacts of Urbanization, Ecological Footprints, Intro to Sustainability, Methods to Reduce Urban Runoff, Integrated Pest Management, Sustainable Agriculture, Aquaculture, Sustainable Forestry

6. Energy Resources and Consumption 9d

-Renewable and Nonrenewable Resources, Global Energy Consumption, Fuel Types and Uses, Distribution of Natural Energy Resources, Fossil Fuels, Nuclear Power, Energy from Biomass, Solar Energy, Hydroelectric Power, Geothermal Energy, Hydrogen Fuel Cell, Wind Energy, Energy Conservation

7. Atmospheric Pollution 6d

-Photochemical Smog, Thermal Inversion, Atmospheric CO<sub>2</sub> & Particulates, Indoor Air Pollutants, Acid Rain, Noise Pollution

8. Aquatic and Terrestrial Pollution 10

-Sources, Human Impacts on Ecosystems, Endocrine Disruptors, Human Impacts on Wetlands & Mangroves, Eutrophication, Thermal Pollution, POPs, Bioaccumulation & Biomagnification, Solid Waste Disposal, Waste Reduction Methods, Sewage Treatment, LD50, Dose Response Curve, Pollution & Human Health, Pathogens & Infectious Diseases

9. Global Change 10d

-Stratospheric Ozone Depletion, Reducing Ozone Depletion, The Greenhouse Effect, Increases in the Greenhouse Gases, Global Climate Change, Ocean Warming, Ocean Acidification, Invasive Species, Endangered Species, Human Impacts on Biodiversity