

Reynolds High School

Building Relationships for Academic Success

Environmental Science Investigations 2023/24

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Textbook/Materials:

The textbook used in this course is *Living in the Environment, 17th Edition* (2012), by G. Tyler Miller and Scott Spoolman. A class set will be available. Personal copies can also be checked out from the library.

Required Materials:

- Chromebook
- 3-ring binder for notes, handouts, lab sheets, readings
- Spiral notebook for note-taking and lab work
- Planner

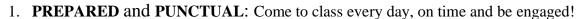
Course Description:

The environment is the world we live in, and increasingly the human population has the ability to affect our environment through our activities and choices. How you choose to live in your environment will be critical to what kind of future you live in. The goal of this course is to give you the information and tools to make informed decisions and to be knowledgeable and active members of your community and larger society. Environmental Science Investigations will give you opportunities to explore your environment and learn about your world through labs, field investigations and interactive activities! We will investigate the causes and effects of global environmental problems. Lectures, films, reading materials, class discussions, activities and projects will

be used for this purpose. Planned lecture and lab topics are listed on the attached Course Outline.



Class Expectations (i.e. POWER):

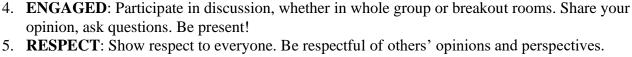




2. **ORGANIZED**: Turn in assignments and homework on time. Get help from me <u>before</u> an assignment is due. Use your planner and don't hesitate to email questions or ask for help.



3. **WRITE**: Listen and speak to others, but do your own best work. <u>Copied work will not receive credit.</u>



Respect Others Allow others to share, but also be generous about sharing your own ideas and insights.

Cell Phones: Cell phones and other electronic devices, including headphones or airpods, must be off and away during class. Cell phones can only be used with permission. Cell phone use during direct instruction is not allowed.

Grading System

Grades will be reported using a traditional A – F grading system, as follows:

 $\mathbf{A} 90 - 100\%$

 $\mathbf{B} 80 - 89\%$

 $\mathbf{C} 70 - 79\%$

D 60 – 69%

F < 60%

<u>Formative Assessments:</u> Classwork/ Homework (40%): Includes daily assignments, labs, projects <u>Summative Assessments:</u> Tests/Quizzes/Lab Reports (60%): includes quizzes, unit tests, and Final Exam. NOTE: Lab Reports will also be included in this category.

Late Work Policy:

Turning work in on time is highly recommended and is in your best interest. Late work will be accepted up to the end of the unit. If you want to retake a failed test, any late work for the unit must be completed first. Any late work is subject to a point reduction of up to 50% of the grade. If you are quarantined at home during any part of the year, you will be given opportunities to complete any missing work without loss of points.

Course Calendar:

Unit	Topics	Labs/ Activities/ Projects
What is	Introduction to environmental science	Peanut observation
environmental	Ecosystem sampling	Pill Bug Lab
science?	Scientific method	
Ecosystems and	Ecological concepts	Bio-Indicators Lab
ecological principles	Food chains, trophic pyramids, food	Soil Ecology Lab
	webs	Owl pellets lab
	Nutrient cycling	Plant community lab
	Succession, Biomes	Ecosystems Inquiry lab
	Local flora & fauna	*Salmon Watch field trip
	Freshwater Ecosystems	-
	Aquatic communities & water quality	
Biodiversity and	Biodiversity	World population Internet lab
Population	Ecosystem services	Hunger banquet
_	Human Population Growth	
	Population ecology	Fish banks Activity
Water resources,	Water resources & wastewater	Water quality lab
pollution and	treatment	Bottled water lab
treatment	Hydrologic Cycle & Water Pollution	*Sewage treatment plant field trip
Land use and	Land Resources	LD-50 Lab
agricultural practices	Agricultural Methods/ pesticides	Mining Lab
	Risk assessment & toxicology	Land Use debate
	Environmental Laws	*Zenger Farm field trip
Global warming and	Composition of the atmosphere	Airborne particulates lab
Climate Change	Air pollution	Acid rain lab
	Global warming & Climate Change	
Pollution and Solid	Solid & Hazardous waste	Plastics lab
Waste	Plastics & recycling	Oil spill lab
	Pollution	
Energy resources and	Energy concepts	Energy content of fuels lab
consumption	Energy sources	Biodiesel Lab
	Fossil fuels vs. Renewables	Wind Turbine Inquiry Lab

Students! Please detach and turn in this page for credit. You may keep the front page for your reference.

Parent Contact Information Please provide the information below so that we can contact you if needed. 1. Student Name (print) _____ 2. Student email (print) _____ 3. Parent Name (print) _____ 4. Parent email (print) 5. Please choose one of the following two options: I can be reached during normal business hours at this telephone number: I can be reached from _____(a.m./p.m.) until _____(a.m./p.m) at this number: ()___-__. 6. Are you available/interested in helping with a field trip as a chaperone? Yes/no _____ 7. Where can the student access the Internet? Home___? School____? Other_____ I have read and I understand the attached course syllabus and student expectations. (Student Signature) (Parent Signature) date

Please turn this page over, read the safety rules and sign the agreement.

Thanks

Please turn this page over to sign the Lab Safety Contract

I,	RHS Science Department - Laboratory Safety Agreementagree to abide by the	
follow	Student Name ring safety rules whenever working in the science laboratories.	
I w		
1.	Use the science laboratory for authorized work only.	
2.	Remove contact lenses and wear safety goggles when instructed.	
3.	. Study the laboratory investigation before coming to class, if possible. (If in doubt about any procedure, I will ask the teacher.)	
4.	Know how to use safety equipment and the location of the eyewash station, safety shower and fire blanket.	
5.	5. In case of fire, alert the teacher and leave the laboratory.	
6.	Carefully check for the presence of ignition sources (open flames, etc.) before using flammable materials such as alcohol.	
7.	Report any accident, injury, spill, unsafe procedure or broken glass to the teacher at once.	
8.	Never taste, touch or smell any substance unless specifically directed by the teacher to do so.	
9.	Handle chemicals carefully, check the label of every bottle or jar before removing the contents, and <u>never return</u> <u>chemicals to reagent containers.</u>	
10.	When heating a substance in a test tube, point the mouth of the tube away from all persons.	
11.	Use proper equipment to handle hot glassware.	
12.	Tie back long hair, remove dangling jewelry, roll up loose sleeves, and tuck in loose clothing.	
13.	At the end of the lab, clean the work area, wash and store all materials and equipment, and turn off all water, gas, and electrical appliances.	
	We have read the laboratory safety agreement, the course syllabus, and acknowledge the content.	
	(Student Signature) (Parent Signature)	

date

date