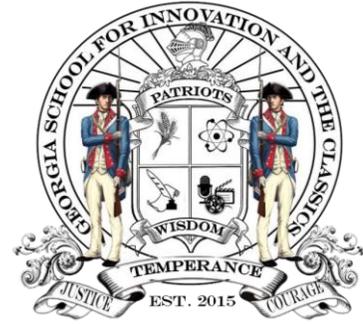


Georgia School for Innovation and the Classics
What to Expect for Environmental Science
2020-2021

Contact Information:

Teacher: Ms. Warren
Office Phone: 706-434-8085
E-mail: mwarren@gsiccharter.education
Conference by appointment only



Google Classroom Code: [ypxof43](#)

GSIC 2020-2021 Science Parent Acknowledgement Form:

<https://forms.gle/sYsRYEFelSCPyc8X6>

Class Materials: Required Daily!!

1 ½ inch or 2 inch 3-ring binder	Data Storage device	Pencils/Pens
Notebook dividers (4+)	Scientific Calculator	Colored pencils or markers
College Ruled filler paper	Index cards	

Course Description:

The Environmental Science course integrates the study of many components of our environment, including the human impact on our planet. Students investigate the flow of energy and cycling of matter within ecosystems, and evaluate types, availability, allocation, and sustainability of energy resources. Instruction should focus on student data collection and analysis from field and laboratory experiences. Some concepts are global; in those cases, interpretation of global data sets from scientific sources is strongly recommended. Chemistry, physics, mathematical, and technological concepts should be integrated throughout the course. Whenever possible, careers related to environmental science should be emphasized. This course is a laboratory course that will teach lab safety and other lab principles in addition to teaching state prescribed standards. Environmental Science has a final exam at the end of the year which counts as 20% of the student's final grade calculation. Exam exemption is an option.....stay tuned!

Grading Scale for 9 week grading period:

- **Formative Assessments *for* learning** (quizzes, classwork, homework,).....**25%**
- **Performance Assessments** (labs, presentations).....**30%**
- **Summative Assessments *of* learning** (unit tests, projects).....**45%**

How to calculate your year grade:
$$\frac{[(Q1 + Q2 + Q3 + Q4) \times .80] + (\text{Final Exam} \times .20)}{4} = \text{Year grade}$$

Notebook requirement:

You will be expected to keep a notebook (1 ½ to 2 inch 3- ring binder) **for this class ONLY**. An organized notebook makes a great study tool!! After you and your parent or guardian read and sign this sheet, you need to place it in the Miscellaneous section of your notebook. Label your notebook dividers as follows and place them in your 3 ring binder:

- Lab Safety
- Energy & Matter
- Stability & Change
- Energy Resources
- Human Impact
- Population Growth

Makeup work will be allowed within 5 days of your return to school with an excused absence. Make up tests will be given after school. I must receive your excuse on the day you return from your absence. It is **YOUR** responsibility to get **YOUR** missed work.

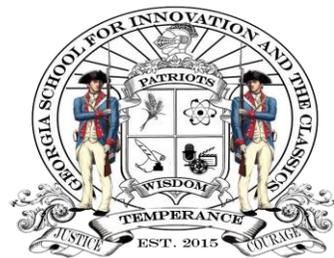
**CLASSROOM EXPECTATIONS and STUDENT RESPONSIBILITIES
for Ms. Warren's Environmental Science**

BE ON TIME!

- Be **inside** the classroom & seated when class begins.

BE PREPARED!

- Bring your book and all required supplies every day.
- No passes out of class for any reason, so**
Take care of business during class change!!
- Be ready to work when you come through the door.
- If it's a lab day, **please** remember Lab Safety and dress *properly!*



BE ON TASK!

- Pay careful, intelligent attention in class.
- Follow Lab Safety Rules and Protocol
- **NO CELL PHONES**
- **NO FOOD OR OPEN DRINKS! DO NOT EAT IN CLASS!**
- Bottled Water with a screw-on cap or other no-spill container is okay.
- We have so much to do, you should always be busy!
- If you are unsure of what to do, please ask.

BE RESPECTFUL!

- of others:**
 - No profanity or verbal abuse!
 - Keep noise to a reasonable level.
 - Do not talk while others are talking; raise your hand to get my attention.
 - The teacher dismisses the class!
- of property:**
 - Do not write on your desk unless instructed to do so!
 - Do not remove community property!
 - Do not borrow anything that is not yours without asking first!
 - Dispose of trash. There are 2 waste baskets in the classroom.
- of yourself:**
 - Follow the dress code as set forth in the student handbook!
 - Show pride in your work!

BE SUCCESSFUL!

- Set goals and have purpose.
- You're here to learn and achieve those goals and I'm here to help you!

Consequences:

- First offense: verbal warning, possible parent contact
- Second offense: parent contact
- Third offense: office referral

Georgia Standards of Excellence for Environmental Science

SEV1. Obtain, evaluate, and communicate information to investigate the flow of energy and cycling of matter within an ecosystem.

- a. Develop and use a model to compare and analyze the levels of biological organization including organisms, populations, communities, ecosystems, and biosphere.
- b. Develop and use a model based on the Laws of Thermodynamics to predict energy transfers throughout an ecosystem (food chains, food webs, and trophic levels).
- c. Analyze and interpret data to construct an argument of the necessity of biogeochemical cycles (hydrologic, nitrogen, phosphorus, oxygen, and carbon) to support a sustainable ecosystem.
- d. Evaluate claims, evidence, and reasoning of the relationship between the physical factors (e.g., insolation, proximity to coastline, topography) and organismal adaptations within terrestrial biomes.
- e. Plan and carry out an investigation of how chemical and physical properties impact aquatic biomes in Georgia.

SEV2. Obtain, evaluate, and communicate information to construct explanations of stability and change in Earth's ecosystems.

- a. Analyze and interpret data related to short-term and long-term natural cyclic fluctuations associated with climate change.
- b. Analyze and interpret data to determine how changes in atmospheric chemistry (carbon dioxide and methane) impact the greenhouse effect.
- c. Construct an argument to predict changes in biomass, biodiversity, and complexity within ecosystems, in terms of ecological succession.
- d. Construct an argument to support a claim about the value of biodiversity in ecosystem resilience including keystone, invasive, native, endemic, indicator, and endangered species.

SEV3. Obtain, evaluate, and communicate information to evaluate types, availability, allocation, and sustainability of energy resources.

- a. Analyze and interpret data to communicate information on the origin and consumption of renewable forms of energy (wind, solar, geothermal, biofuel, and tidal) and non-renewable energy sources (fossil fuels and nuclear energy).
- b. Construct an argument based on data about the risks and benefits of renewable and nonrenewable energy sources.
- c. Obtain, evaluate, and communicate data to predict the sustainability potential of renewable and non-renewable energy resources.
- d. Design and defend a sustainable energy plan based on scientific principles for your location.

SEV4. Obtain, evaluate, and communicate information to analyze human impact on natural resources.

- a. Construct and revise a claim based on evidence on the effects of human activities on natural resources. Agriculture, Forestry, Ranching, Mining, Urbanization, Fishing, Water use, Pollution, Desalination, Waste water treatment, Land/ Water /Air, Organisms
- b. Design, evaluate, and refine solutions to reduce human impact on the environment including, but not limited to, smog, ozone depletion, urbanization, and ocean acidification.
- c. Construct an argument to evaluate how human population growth affects food demand and food supply (GMOs, monocultures, desertification, Green Revolution).

SEV5. Obtain, evaluate, and communicate information about the effects of human population growth on global ecosystems.

- a. Construct explanations about the relationship between the quality of life and human impact on the environment in terms of population growth, education, and gross national product.
- b. Analyze and interpret data on global patterns of population growth (fertility and mortality rates) and demographic transitions in developing and developed countries.
- c. Construct an argument from evidence regarding the ecological effects of human innovations (Agricultural, Industrial, Medical, and Technological Revolutions) on global ecosystems.
- d. Design and defend a sustainability plan to reduce your individual contribution to environmental impacts, taking into account how market forces and societal demands (including political, legal, social, and economic) influence personal choices.