DUBUQUE SENIOR HIGH SCHOOL

Global Science
Mr. Weber
Ms. Redmond

"Better to light one candle, than to curse the darkness"

Welcome to Global Science! The work in here will be a combination of reading, notes, worksheets, videos, labs and tests. As much as possible, we will have a hands-on, minds-on approach to learning in Global Science. I would like to have you think and analyze information and not just recite it. I also try to incorporate as many laboratory activities as possible. I want you to work through, investigate and solve scientific questions and problems using the proper methods. Much of what we discuss involves real problems that occur in our world, many of them right here in our own community. All of you are approaching the age where your decisions make an impact on yourself, your surrounding community and the greater biosphere (aka – the Earth). Therefore, it is important that you as an individual and member of our community be able to make informed decisions. In the end I want to become a critical thinker that can apply new knowledge. Feel free to contact me if there is ever a question or concern.

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Course Description:
Global science is a yearlong course. The instructional methods of this curriculum are intended to develop student interest in studying, observing and understanding Earth systems, ecosystems, and human influences on these systems. The study of natural connections will help students become stewards of the environment, more informed citizens, and better decision-makers.

Standards:

Key Ongoing Performance Based Standards

- Can construct an appropriate graph based on data given.
- Can analyze graphs, tables and charts for interpretation.
- Can appropriately develop a position or solution that is supported with evidence and addresses both positives and negatives of their position when presented with an environmental problem.
  Claim >>>> Evidence>>>>>Reasoning
- Can explain their personal impact on the environment, with both positive and negative examples.
- Can analyze written text for opinion, facts, bias, and relevance.

Understand and apply knowledge of the interdependence of matter, energy, and organization of living systems. Specific Next Generation Science Standards to be covered include:

ESS1-1 and 1-3
I can describe the sequence of events in the life cycle of a star
I can explain the process of nuclear fusion and the role it plays with in stars.
I can explain the roll of radiant energy from the sun and its importance to earth.

ESS1-2
I can use reason at least two forms of evidence form the following list to support the Big Bang Theory
Doppler Effect, red shift, blue shift, background radiation, motion of distant galaxies

ESS1-4
I can apply gravitational laws to orbiting objects.

ESS1-6
I can use two pieces of evidence from the following list to reason Earth's early formation.
Radiometric dating, impact craters, size and composition of solar system objects, plate tectonics has destroyed much evidence

ESS2-6 & ESS3-6, ESS3-3, ESS3-4
I can explain the role of carrying capacity and limiting factors on population growth'
I can describe examples of various factors that influence human population growth.
I can explain the impact of human population on biodiversity; such as habitat loss and fragmentation, hunting/poaching, pollution, invasive species
I can describe the cycling of carbon, nitrogen, water, phosphorus through the four spheres.

ESS2-7
I can use evidence to explain how Earth's atmosphere has changed over time.

ESS1-5
I can reason at least two pieces of evidence from the following list to explain that the continents are moving slowly over time.
Fossil evidence, isochrons, magnetic reversals, depth of ocean sediment, radiometric dating

ESS2-1
I can describe the relationship between plate boundaries and formation of specific surface features. Volcanoes, folded mountains, trenches, rift valleys, mid-ocean ridges, seamounts, tectonic uplift

ESS2-3
I can explain the forces moving tectonic plates.
Convection currents, ridge push, slab pull

ESS2-3
I can explain how igneous, sedimentary and metamorphic rocks are cycled through the geosphere

ESS2-1
I can describe the difference between rocks and minerals and explain the differences in their formation

Course Expectations

1. Be on time every day.
2. Respect other students, teachers and the room.
3. Have your materials with you (***computer, writing utensil, paper, completed assignments***). No you can't go to your locker.
4. Use appropriate language.
5. Put your cell phone away (in your pocket/book bag, on silent and out of sight). You cannot charge your phone in the room.
6. Participate in class discussions and activities. If you are sleeping, you will lose the privilege of using a chair and will need to stand. You should not be completing work for another class unless your work for this class is finished and there is time left at the end of the period.
7. All other general school rules apply

In the case that these expectations are not being met, you will most likely receive either a verbal or a nonverbal warning. If it continues to become a problem we will meet to develop a practical solution to remedy the problem.

Course Assessment

Your grade will be based on a number of components as we move through each quarter. These will include both formative (ongoing) and summative (at the end) assessments. Not all assignments will be graded for points. Assessments will include tests, quizzes, homework assignments, labs, group discussions, and projects. There is no specific weight or percentage that I give to each component. I simply add up the points you earned and calculate your percentage of the total possible points. A point of a test is worth the same as a point on any assignment. Having said that, my class generally breaks down to roughly 50% tests and 50% assignments. The grading percentages are as follows.

A	100% - 92%	C	77% - 72%
A-	91% - 90%	C-	71% - 70%
B+	89% - 88%	D+	69% - 68%
B	87% - 82%	D	67% - 62%
B-	81% - 80%	D-	61% - 60%
C+	79% - 78%	F	Less than 60%

Assignments that are turned in late are half credit. Any missing assignments must be turned in before the next test if you want to receive any credit. If an assignment is to be turned in on canvas, there will be strict due dates based on updating and managing grades. If you are absent you should see me either before class starts or at the end of the period. It is your responsibility to get any missing work, make up any tests, or hand in assignments from when you were absent. Generally, you will be given two days to complete the assignments from when you were absent.

Get in the habit of knowing your grade and checking powerschool (and/or canvas). Grades will be updated regularly (at least once a week). You need to be able to monitor your grade for any missing assignments that were the result of being absent or just not turned in.

Cheating Policies

If you are caught cheating or copying, I will throw the assignment, test or quiz away and you will receive no points on it. Group work is acceptable when I have directed you to do so. However, if you are working in a group everyone needs to write down the information at the time you are finding it. Group work means there is a team effort where everyone shares, gives input, and writes down the answers, not simply copying down the answers after one person has decided to actually do the work. Do your own work and be proud of your work!