

Earth Science Syllabus

Southwest Minnesota Christian High School

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Course Description: In this course, you will learn about the ground beneath your feet. You will also learn to recognize how the ground beneath our feet was produced. Thus, this course incorporates several major areas of earth science including rocks, minerals, plate tectonics, glaciers, and topography. Students will participate in labs, create projects, and perform observational activities. The class will also exam the limitations of science and the relationship between science and a Christian worldview.

Course Objectives: Upon completion of this course students should:

1. Have a strong foundational knowledge the types of rocks that make-up this planet as well as understand how they were produced.
2. Come to realize the impact glaciers have had on both Southwest Minnesota as well as the upper Midwest.
3. Be able to explain how our knowledge and understanding of these topics has expanded and changed throughout history.
4. Be able to read and create a topographical map.
5. Be able to identify and describe the various tools used to study the earth.
6. Be able to recognize how studying earth science is applicable to their own lives
7. Recognize the limitations of science and have a better understanding of the complexity, beauty, and magnitude of God's creation

Required Text: Earth Science

Course Standards/Goals

- A. Science will encourage students to take joy and delight in exploring and coming to understand God's world
(-Unifying Concepts and Processes)
 - a. Systems, order, and organization
 - b. Evidence, models, and explanation
 - c. Change, consistency, and measurements
 - d. Evolution and equilibrium
 - e. Form and Function
- B. Students are involved in designing experiments, making observations and contributing to existing knowledge in science
(-Science as Inquiry)

- a. Identify questions and concepts that guide scientific investigation
- b. Design and conduct scientific investigations
- c. Use technology and mathematics to improve scientific investigations
- d. Formulate and revise scientific explanations and models using logic and evidence
- e. Recognize and analyze alternative explanations and models
- f. Communicate and defend a scientific argument
- g. Understand scientific inquiry

C. Students will learn that physical and living things are created by God and not merely nature, environmental or natural resources

(-Physical Science)

- a. Structure of the atom
- b. Structure and properties of matter
- c. Chemical reactions
- d. Conservation of energy and the increase of disorder
- e. Interactions of energy and matter

D. Science is a human cultural activity through which God can be glorified and human life enhanced or used in life distorting ways

(-Science and Technology)

- a. Identify a problem or design an opportunity
- b. Propose designs and choose between alternative solutions
- c. Implement a proposed solution
- d. Evaluate the solution and its consequences
- e. Communicate the problem, process, and solution
- f. Understand science and technology

E. Through the study of science, students gain a deepened understanding of how they are the care-takers of creation and responsible to God for maintaining, developing and restoring it

(-Science in Personal and Social Perspectives)

- a. Personal and community health
- b. Population growth
- c. Natural resources
- d. Environmental quality
- e. Natural and human-induced hazards
- f. Science and technology in local, national, and global challenges

F. Students will study science in the context of human history and develop a Biblical perspective in personal and communal decision making

(-History and the Nature of Science)

- a. Science as a human endeavor

- b. Nature of scientific knowledge
- c. Historical perspective

Grading Scale:

A	96-100
A-	92-96
B+	87-91
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	66- 69
D	63-65
D-	60-

Evaluation:

- * Tests – 25%
- * Projects/Labs –25%
- * Lab Handouts/Lab Quizzes- 20%
- * Homework – 15%
- * Online Discussions- 15%

If you were absent when the assignment was made you are given an extra day to complete the assignment without penalty.

IT IS YOUR RESPONSIBILITY TO MAKE UP MISSING WORK INCLUDING TESTS and LABS!

Test make-up policy: If a student is absent and misses a test, he or she must be prepared to take the test the day the student is back in school. Ten percent will be deducted from the final test score each week that the test has not been completed. Students must complete the test within the time frame of a normal class period of 48 minutes. (Note: It is not my responsibility to track down the absent student.)

Lab make-up policy: If a student is absent on the day of a lab, the lab must be made up. Make-up labs must be completed within one week upon return or the grade will result in a “0”. It is the student’s responsibility to contact the teacher to make arrangements for lab make-up.

Classroom Expectations:

1. Respect others. (Philippians 2:3-5)- Be courteous and polite to everyone. Be quiet when the teacher or a classmate is talking.

2. Be prepared. (2 Timothy 2:21)

- Have everything you need for class with you every day.
- Have homework complete and out on your desk before class begins.

3. Be prompt. (Hebrews 6:12)

- Be in class on time! You will be marked Tardy if not in the room by 2nd bell.
- If coming to class late have a pass from the office.

4. Have a positive attitude. (Philippians 2:1-2)

5. Make it a point every day to encourage others and honor and glorify God in all that you do!