

Course Outline: Earth Science

School Year 2008-2009

Instructor: Mrs. Yanez
Room: 201 & 202

Email: yaneza@bishopmoore.org

Text: Earth Science, Allison, DeGaetano, Pasachoff Published by Holt

Course Description: This course provides students with an introduction to the study of high school science. This course will introduce the student to the four spheres: hydrosphere, geosphere, atmosphere, and biosphere. Throughout the course the students will recognize the importance of the balance of these systems and the cause and effect relationships that result when these delicate balances are disrupted.

Labs: Major laboratory assignments will be conducted in class throughout the course. All students will complete laboratory assignments working in a group of two or four depending on the laboratory assignment. For some laboratory assignments you may be required to bring in extra supplies. Teamwork is emphasized. If a student is not participating fully, this will result in loss of points or a zero on the assignment at hand. All students will be required to contribute writing the laboratory reports within their group.

Requirements:

1. It is **required** that you maintain an accurate, chronological journal/notebook. **The notebook required for this class is a minimum of a one inch, or larger, 3 ring binder.**
2. 3 x 5 index cards, calculator, colored pencils, pen, pencils, notebook, and ruler
3. **Adequate** completion of tests, lab work, quizzes, projects, reports, and in-class assignments.
4. Make-up all missed work, including labs. **It is your responsibility to make-up work you miss (including legal sickness, advanced absences; family emergencies, etc.).** You will have the amount of sick days +1 day to make up missed work, tests, etc. No make-up work can be completed during class time and make-up work will be scheduled at the instructor's convenience. Make-up tests and quizzes are done after-school or at the instructor's convenience.

I grade using a point scale. Your grade is determined by the total points you accumulate divided by the total possible points. There are three main categories your work will fall into depending on the activity.

Test (Chapter test primarily)	= 45% of your total grade
Alternative Assessment (Labs, Critical Reviews, & Quizzes)	= 35% of your total grade
Daily Work (Bell work, Homework, vocab, etc)	= 20% of your total grade

	100%

Class Participation: Class participation will be factored in your final grade. It will be worth up to five percent of your total grade and is determined by conduct, mastery of material and participation. There will be no curving or adding of extra points. You must EARN your grade. Students are expected to participate intelligently and positively in class activities and discussions.

Extra Credit: Extra credit is given at the discretion of the instructor.

Notebook: The required notebook for this class is a three-ring binder. Your notebook must be organized chronologically. Keep ALL papers in your notebook. It is your responsibility to keep up with your grade and papers. If a problem arises you

must have proof of work completed. I will not accept anything other than your graded papers as proof of work completed. **This syllabus must be kept in your notebook for the entire year.**

Absenteeism: When you are absent from class it is **YOUR** responsibility to make arrangements to get and complete missed assignments. The school rule states that you get the number of days absent plus one to make-up work. It is YOUR responsibility to make sure that you turn make-up work in within the time allowed. Furthermore, if you are absent on a day that an assignment is due, it is due on the day that you return. Attendance is mandatory and necessary for success in this class.

Late work will not be accepted for any reason.

Textbook: Your text book is the most **important** resources you have to be successful in this class. You will bring it **everyday** to class. On occasion I will do book checks to make sure you have the book.

You need to come to class prepared.

Student Responsibilities: Respectful, Responsible, Prepared and Prompt

1. Come to class on time everyday and be prepared (notebook, book, pen or pencil, homework, nerve cells and manners etc.). You must determine the path that will ensure your arrival to class on time.
2. Write all homework in your planner. Look at the board daily to know what assignments are to be turned in and what assignments are for homework.
3. Be in your seat and NO talking to other students after the tardy bell rings. Ask permission to leave your seat. Remain seated until dismissed by the teacher.
4. Raise your hand to be called on to speak. Being disrespectful in class will NOT be tolerated.
5. NO cheating. This pertains to ALL assignments, not just tests. If you are caught **cheating you will receive a zero for that assignment**, your parents and/or the guidance counselor will be notified. During tests, the person providing the information (knowingly or not) as well as the cheater will receive a zero grade, so cover your work during testing.
6. NO violations of school policy.
7. Turn all assignments in on time. Late work will **NOT** be accepted. The **ONLY** exception is for an absence from school as outlined in the handbook. All make-up work must be turned within the appropriate time.
8. Leave food and drink outside the classroom.
9. Clean up all assigned areas daily prior to leaving class or you will be penalized points.
10. Follow the Golden Rule: DO UNTO OTHERS AS YOU WOULD HAVE DO UNTO YOU. (That goes for all people, other students, teacher, administrators, EVERYBODY!)

Disciplinary Action:

1. A friendly, verbal reprimand in class.
2. Points off your participation points.
3. Note to your parent(s) or legal guardian, requiring a signature and/or phone call.
4. Detention.
5. Further action will include referral to the office and a recommendation for suspension.

Severe discipline problems will be dealt with accordingly. This outline is subject to change depending on the severity of the problem.

There are no exceptions to this rule. Once the tardy bell rings, if you are not in your seat, you are considered late.

Homework: Homework will be issued frequently. Some Homework assignments may be written, group work, or studying. Homework does not just entail writing or doing problems. Please ensure that you are aware of all homework assignments. Make sure you understand when an assignment is due!!! Do NOT leave the room unless you know the due date. If you do not know...ASK!!!

First Semester

(This syllabus is to be used as a guideline and is subject to change)

CHAPTER 1

Time Line: 2 weeks

Chapter Objectives:

- Name the four main branches of Earth Science
- Discuss how Earth scientists help us understand the world around us
- Identify the steps that make up scientific methods
- Analyze how scientific thought changes as new information is collected
- Explain how science affects society

Alternative Assessment:

Notebook Evaluation

Chapter Evaluation:

To include quizzes, worksheets, labs, and test.

CHAPTER 3

Time Line: 2 weeks

Chapter Objectives:

- Distinguish between latitude and longitude
- Learn about the art of cartography
- Distinguish between the various types of maps

Alternative Assessment:

Notebook Evaluation

Chapter Evaluation:

To include quizzes, worksheets, labs, and test.

CHAPTER 4

Time Line: 1 week

Chapter Objectives:

- Compare chemical properties and physical properties of matter
- Learn about atoms and their properties
- Describe the differences between bonds, compounds, and mixtures

Alternative Assessment:

Atomic Element Model

Chapter Evaluation:

To include quizzes, worksheets, labs, and test.

CHAPTER 5

Time Line: 1 week

Chapter Objectives:

- Learn what is a mineral and compare the two types
- Distinguish between the six types of crystalline structures and three non-crystalline
- Learn to identify minerals by observing physical properties.

Chapter Evaluation:

To include quizzes, worksheets, labs, and test.

CHAPTER 6

Time Line: 2 weeks

Chapter Objectives:

- Identify the three major types of rock
- Explain the Bowen's reaction series
- Identify the steps of the rock cycle

Alternative Assessment:

Notebook Evaluation

Chapter Evaluation:

To include quizzes, worksheets, labs, and test.

CHAPTER 10

Time Line: 1 week

Chapter Objectives:

- Discuss Wegener's hypothesis of continental drift
- Describe the process of seafloor spreading and the effect on continental drift
- Discuss the theory of plate tectonics and the causes of plate movement

Alternative Assessment:

Notebook Evaluation

Chapter Evaluation:

To include quizzes, worksheets, labs, and test.

CHAPTER 11

Time Line: 1 week

Chapter Objectives:

- Discuss how rock deforms and why
- Learn how mountains form and identify each type

Alternative Assessment:

Notebook Evaluation

Chapter Evaluation:

To include quizzes, worksheets, labs, and test.

CHAPTER 12

Time Line: 1 week

Chapter Objectives:

- Discover how and where earthquakes occur
- Learn how scientists study earthquakes
- Discuss how earthquakes effect society

Chapter Evaluation:

To include quizzes, worksheets, labs, and test.

CHAPTER 13

Time Line: 1 week

Chapter Objectives:

- Learn how plate tectonics and volcanoes are related
- Breakdown the different types of volcanic eruptions
- Identify the physical properties of volcanoes

Second Semester

(This syllabus is to be used as a guideline and is subject to change)

CHAPTER 14 – Weathering & Erosion

Time Line:

Chapter Objectives:

- Students will identify agents and processes related to the weathering process

- Students will discuss how the rates of weathering change due to the physical & chemical properties
- Students will study the process of how soil is made and identify the different types
- Students will define erosion and identify contributing factors

Alternative Assessment:

Weathering Lab

Chapter Evaluation:

To include quizzes, worksheets, labs, and test.

CHAPTER 15 – River Systems

Time Line:

Chapter Objectives:

- Students will outline the water cycle & discuss ways to conserve water
- Students will describe the parts of a river system and learn how rivers develop
- Students will explain stream deposition and identify methods of flood control

Alternate Assessment:

Stream Table Lab

Chapter Evaluation:

To include quizzes, worksheets, labs, and test.

CHAPTER 16 - Groundwater

Time Line:

Chapter Objectives:

- Students will identify properties of aquifers and how they affect the flow of groundwater
- Students will identify different water formations
- Students will discuss how water can chemically alter rocks
- Students will learn about karst topography

Alternative Assessment:

Lab / Notebook Evaluation

Chapter Evaluation:

To include quizzes, worksheets, labs, and test.

CHAPTER 22 – The Atmosphere

Time Line:

Chapter Objectives:

- Students will identify the different layers of Earth's atmosphere
- Students will learn about solar energy and how the energy warms Earth
- Students will learn about the Coriolis effect & identify global wind patterns

Chapter Evaluation:

To include quizzes & Directed Reading

CHAPTER 23 – Water in the Atmosphere

Time Line:

Chapter Objectives:

- Students will discuss atmospheric pressure
- Students will identify the different types of clouds and learn how they form
- Students will identify the forms of precipitation, how it is caused, and how to measure it

Chapter Evaluation:

To include a test.

CHAPTER 24 - Weather

Time Line:

Chapter Objectives:

- Students will identify the different types of air masses and distinguish how they are formed
- Students will discuss the characteristics associated with fronts
- Students will identify the various weather instruments & learn about weather forecasting

Chapter Evaluation:

Interpret a weather map and quizzes.

Chapter 25 – Climate

Chapter Objectives:

- Factors that affect Climate
- Climate Zones
- Climate Change

Chapter Evaluation:

To include a test

CHAPTER 26 – Studying Space

Time Line:

- Students will describe characteristics of the universe in terms of time, distance, and organization
- Students will identify the movements of Earth and how it relates to measuring time

Alternative Assessment:

Angle of Sun's Rays Lab & Earth-Sun Motion Lab

Chapter Evaluation:

To include quizzes

CHAPTER 27 – Planets of the Solar System

Time Line:

- Students will describe how planets formed
- Students will identify the different characteristics of the inner and outer planets

Alternative Assessment:

Solar System Travel Brochure

Chapter Evaluation:

To include quizzes & tests

CHAPTER 30 – Stars, Galaxies, and the Universe

Time Line:

- Students will learn and explain the characteristics of stars
- Students will discuss stellar evolution
- Students will describe the characteristics that identify a constellation & identify the galaxies

Alternative Assessment:

Constellation Lab

Chapter Evaluation:

To include quizzes and a lab

SAFETY REGULATIONS

1. Safety goggles and gloves should be worn by everyone when participating in a laboratory exploration.
2. Contact lenses should not be worn during a laboratory exploration because there is a possibility that chemicals may infuse under the contact lenses and cause irreparable eye damage.
3. Read and understand laboratory instructions before beginning.
4. Use only materials and equipment authorized by your teacher.
5. Stay alert and proceed with caution at all times during a laboratory experiment. NO FOOLING AROUND, people could get hurt or equipment could get broken.
6. Dress appropriately for a laboratory. Cotton clothing is preferred over synthetic fibers, such as polyesters or nylon, because of chemical reactivity. Student dress should also comply with Bishop Moore School Dress Code.
7. Only lab sheets and notebooks are permitted in working areas. All other belongings should be under your table to allow a clear aisle in case of an emergency evacuation (fire or tornado drills, etc.).
8. NO FOOD OR BEVERAGES ARE PERMITTED IN ANY SCIENCE LABORATORY. This is for your protection. You do not know what chemicals or laboratory specimens might have been in the room before you came to class.
9. NEVER TASTE CHEMICALS. NEVER TOUCH CHEMICALS WITH YOUR BARE HANDS. NEVER SMELL CHEMICALS DIRECTLY UNDER YOUR NOSE.
10. Extreme caution should be exercised when working with heat or electricity. Keep your head, hair, and clothing away from any open flames from candles or stoves. When using a hot plate, make sure it is always in an off position and unplugged when you finish using it.
11. You should know the proper fire drill procedures, the location and function of all safety equipment, and the location of all EMERGENCY EXITS.
12. Work areas and apparatus should be kept clean and neat. At the conclusion of each laboratory experiment clean and wipe dry your used apparatus and work station.
13. Hands should be washed thoroughly with SOAP and WATER at the conclusion of each lab.
14. Everyone should recognize and heed all safety symbols and cautions incorporated in the procedures of the lab exploration.
15. All accidents should be reported to the teacher immediately, no matter how minor.
16. NEVER WORK ALONE IN THE LABORATORY. You should only work in the laboratory while under the supervision of your teacher.
17. Treat lab equipment with respect.

Your time is valuable. DO NOT waste it. Always respect the rights of others.

Don't forget to ask lots of questions. If there is any way during the year that I can help you academically or otherwise please do not hesitate to ask.

Welcome to Earth Science. If you invest the time to succeed, you will not be disappointed. I am looking forward to a year full of learning, success, and fun! If you are having difficulties please stop by and see me. I have an open door policy and will attempt to help you to the best of my abilities.

--Mrs. Yanez ☺

TO BE SIGNED BY THE STUDENT AND PARENT. THIS FORM IS DUE ON AUGUST 22TH.

As a student, I understand the following information. I also understand that it is my responsibility to make sure I succeed in this class. I will ask Mrs. Yanez for any help needed in order to succeed.

Student Printed Name _____ Date _____

Student Signature _____ Date _____

Student Email _____

As a parent, I have read the attached syllabus. If I have any questions or concerns I will contact Mrs. Yanez by email, telephone, or contacting my child's guidance counselor.

Parent/Guardian Signature _____ Date _____

Please fill out the following information for my class records.

Father's Name _____

Home Address: _____

Home Phone # _____

Alternate phone # _____

Email : _____

Mother's Name _____

Home Address: _____

Home Phone # _____

Alternate phone # _____

Email: _____

**** You can also e-mail your e-mail addresses to me directly.**

If there is anything I need to know or any special needs of your child, please feel free to include that on the back. (For example, known allergies, medical conditions, etc.)