



8th Grade Science

Antony Anthony Bouaphanh
Abouaphanh@emsisd.net

Conference Period: 2nd Period 9:10 am to 10:00 am

Tutoring Opportunities:

- Wednesday and Thursday 3:30 pm –4:15 pm (Afterschool)
- Other times may be scheduled by appointment

Class Materials:

- EMS ISD Single Sign-On Class Link
- 2-3 Spiral or Composition Notebooks, Pens/Pencils, Colored Pencils, Scissors and Glue
- Additional Materials: Pens, pencils, colored pencils, scissors, and glue.
- If a student is in need of a device outside of school hours, they may be checked out via Mrs. Aragon

Access to Canvas and Office365 tools is available to students through our [Single Sign-on Portal \(SSO\)](#). Students receive their SSO login during enrollment.

Course Description:

This course is designed to provide students with the skills necessary to apply science concepts through student centered problem solving and investigations. Along with being able to ask questions and solve problems, students will collect and organize data, and draw conclusions based on their findings. While much of the focus is on earth and space science, the course is built on the following strands: scientific investigations and reasoning; matter and energy; force, motion, and energy; earth and space; and organisms and environment. The students are encouraged to advance their critical thinking and problem-solving skills by participating in individual or group research. Many labs and projects are open ended inquiry and require critical reading, writing, investigating, analyzing of data, peer reviewing reports and presentation skills.

Course Goals:

Students who complete this course successfully will be able to:

- Conduct experiments with data collection and provide analysis of the data through interpreting graphs and claim-evidence-reasoning conclusion writing.
- Describe the properties of matter including atomic structure using the Period Table and constructing models.
- Interpret information about the chemical and physical properties of matter by using the Periodic Table.
- Identify how a new substance is formed in a chemical reaction by conducting experiments and relate it to the Law of Conservation of Mass.
- Relate force, motion and energy by conducting experiments, collecting data, and performing mathematical calculations.

- Model and describe the characteristics of the universe and the earth-moon sun system.
- Relate plate tectonics to crustal features and use maps and satellite imagery to explain surface features of the earth.
- Understand how the sun's uneven heating of the earth affects the ocean and atmosphere.
- Describe how organisms and the environment are interdependent.

Student Evaluation:

The grading system for this course is as follows:

- Grade averaged 60% Major 40% Minor
- Major grades – tests (including District Common Assessments, projects, final essays, research papers, presentations); minimum three per six weeks
- Minor grades – quizzes, daily assignments, journals; minimum four per six weeks
- Each six weeks will count as 1/6 and the semester exam will count as 1/7 of the semester grade.
- A letter system (S, N, U) is used to report a student's conduct based on proper/responsive conduct and citizenship
- Per Board Policy EIA (LOCAL), "The District shall permit a student who meets the criteria detailed in the grading guidelines a reasonable opportunity to redo an assignment or retake a test for which the student received a **failing** grade. This policy applies only to initial identified major grades and does not apply to daily assignments and quizzes. Upon reteach and retest, the new test, project, etc. recorded will be a high score of 70%.
- Official grades will be in Skyward only and can be accessed by student and parent through Family Access.

Assignments, exams, expectations outside of the classroom:

Students will be expected to participate in class daily and will earn credit based on their ability to demonstrate knowledge learned as applied in a variety of learning activities. Quizzes, Tests, DCA's will be completed both in CANVAS or Eduphoria AWARE and in person. Official grades will be posted in Skyward Family and Student Access. CANVAS, TEAMS, Microsoft 365 will be used as the digital tool to support the learning. CANVAS will be used for accessing assignments and lessons when students are absent or missing assignments, they will be able to find information in CANVAS. Lessons may be provided by the teacher. All students are expected to actively participate by listening attentively, asking questions for understanding, reading critically, taking notes in their ISN, staying on topic during discussions and attending tutorials if needed. Review of material is strongly encouraged outside of class to improve recall and retrieval of information learned in class

Attendance/Tardy Policy/Make-Up Work:

- Please also refer to the EMSISD Student Handbook for district policies concerning Attendance/Tardy Policy/Make-up Work and Student Code of Conduct.
- Make-up work and re-doing assignments will be handled on a case-by-case basis.
- Students who are absent on the day that a test is given should be prepared to take the test upon their return to school. Make-up tests may need to be completed before or after school.

Classroom Expectations:

- RESPECT is #1: Respect for others, each other, and the classroom. Students will be expected to follow campus guidelines for behavior as outlined in the EMSISD Student Handbook.

- COMMUNICATION is Key: Speak up when you need assistance and understanding of what is being asked of you if you are not sure.
- Students are required to be in their assigned seats at the beginning of class before tardy bell rings. This will be discussed with students along with classroom procedures during first day of school.

Preliminary Schedule of Topics, Readings, and Assignments

Intro to 8th Grade Science

Unit 1: Matter and Energy

Calculating Density-Physical Properties

Describing Atoms

DCA #1 Atoms

Interpreting the Periodic Table

Unit 2: Chemical Formulas, Equations and Reactions

Chemical Formulas

Chemical Reactions

Chemical Equations and the Law of Conservation of Mass

DCA #2

Unit 3: Force, Motion and Energy

Compare and Contrast Potential and Kinetic Energy

Demonstrate Energy Transformations

Calculate Speed

Interpret Motion from a Line Graph

Demonstrate and Calculate Unbalanced and Balanced Forces Effect on Acceleration

Differentiate between Speed, Velocity and Acceleration

Investigate, Classify and Apply Newton's Laws of Motion

DCA #3

Unit 4: Sun, Earth and Moon

Model and Illustrate Seasons and Day/Night

Demonstrate and Predict Lunar Cycle Events Moon's Effect on Tides

Sun, Earth and Moon Test

Unit 5: Characteristics of the Universe

Semester Review and Exam: Units 1-4

Describe the Universe

Describing Stars using HR Diagram

The Sun

The Electromagnetic Spectrum

DCA #4:

Characteristics of the Universe

Unit 6: Climatic Interactions

Sun's Role in Convection of Oceans and Atmosphere

Interpreting Weathering Maps Hurricane Formation

Unit 7: Plate Tectonics Historical Evidence for Plate Tectonic Theory

Plate Boundaries and the Landforms Made

Interpreting Topographic Maps and Satellite Images

DCA #5: Plate Tectonics

Unit 8: Interdependence of Living Systems
Dependence and Competition for Abiotic/Biotic Factors in an Ecosystem
Explore Environmental Changes Effect on Populations
Recognize Human Dependence on Ocean Systems
DCA #6:
Interdependence of Living Systems
Review of Units 1-8 for STAAR Test
STAAR Test
Project Based Learning
Final Exam: Project Presentation on Scheduled Final Exam Time

Academic Integrity: Update from GRH

Academic integrity values the work of individuals regardless if it is another student's work, a researcher, or author. The pursuit of learning requires each student to be responsible for his or her academic work. Academic dishonesty is not tolerated in our schools. Academic dishonesty includes cheating, copying the work of another student, plagiarism, and unauthorized communication between students during an examination. The determination that a student has engaged in academic dishonesty shall be based on the judgment of the classroom teacher or other supervising professional employee and considers written materials, observation, or information from students. Students found to have engaged in academic dishonesty shall be subject to disciplinary and/or academic penalties. The teacher and campus administrator shall jointly determine such action.



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