



Earth Systems Instructional Plan:

Course Overview

This is a year-long course aligned with the **Texas Essential Knowledge and Skills (TEKS)** for Earth Systems Science. Students will explore the interconnected systems of the **geosphere, hydrosphere, atmosphere, and biosphere**, as well as Earth's place in the solar system and universe. Students will investigate Earth's geologic history, climate and weather patterns, ocean systems, and the impact of human activities. Emphasis is placed on scientific inquiry, data analysis, and understanding the physical and chemical processes that shape our planet.

Contact Information

Instructor: F. M. Telschow
Email: fred.telschow@midlandisd.net
Classroom: MHS 241
Tutorials: During lunch by appointment

Classroom Expectations

Our classroom will be a **respectful, safe, and collaborative environment** where students come prepared, participate fully, and support each other's learning.

Core Expectations:

- **Punctuality:** Be on time and prepared for class.
- **Respect:** Treat your classmates, the teacher, and classroom equipment with respect.
- **Participation:** Actively engage in class discussions and activities.
- **Academic Integrity:** All work must be your own. Plagiarism and cheating will not be tolerated.
- **Personal Property:** All backpacks, bags, purses, devices (powered off and stowed), and other personal property will be stored at designated locations determined by the instructor. Only fully charged Chromebooks, notetaking materials, and writing implements are allowed at the student's workspace.
- **Food & Drink:** Food and drinks are not permitted in the lab environment. A spill-proof water bottle may be kept at the student's workspace at the instructor's discretion.
- **Responsible Conduct:** Horseplay is never acceptable. Any actions, speech, or behavior the Instructor considers detrimental to the learning environment will result in disciplinary action according to MISD policy.

Behavior & Consequences

Success in this course is supported through positive reinforcement, clear expectations, and consistent routines. If expectations are not met, the process will be:

Reteach → Redirect → Parent Contact → Office Referral

Required Materials

- *Savvas High School Earth Science* textbook
- Notebook for notes, assignments, and lab work
- Pens/pencils
- Scientific or graphing calculator
- Fully charged MISD-issued Chromebook



Earth Systems Instructional Plan: Assignments & Schedule

Students are expected to check Google Classroom regularly for updates.

Tutoring

Available during lunch by appointment. Students are encouraged to seek help as soon as they feel uncertain about a concept.

Attendance Policy & Importance

Regular attendance is essential in Earth & Space Science. This course involves **laboratory investigations, hands-on activities, and discussions** that cannot be fully replicated through make-up work. Concepts build progressively, and missing class can create gaps that are difficult to close. Midland ISD grading policy will be followed for late work

Learning Objectives

By the end of this course, students will be able to:

1. **Geosphere:** Explain plate tectonics, the rock cycle, and surface processes.
2. **Hydrosphere & Atmosphere:** Analyze weather patterns, ocean systems, and climate change.
3. **Biosphere:** Evaluate ecosystem dynamics and human impacts on the environment.
4. **Astronomy:** Describe Earth's place in the solar system and model astronomical cycles
5. Apply **scientific inquiry and data analysis** to real-world environmental and space science problems.
6. Use **scientific tools and technology** to collect and interpret data.

Course Schedule and TEKS Alignment

The following is a general outline of the course topics, referencing the Midland ISD YAG and the specific TEKS covered. The schedule may be adjusted as needed.

Unit 1: The Geosphere: Earth's Structure and History

TEKS: 5A, 5B, 5C, 5D, 5E, 5F, 5G, 6A, 6B

- Week 1-2: Earth's origin, interior structure, and plate tectonics. TEKS 5A, 5B
- Week 3-4: Minerals, the rock cycle, and geologic time. TEKS 5C, 5E, 5F
- Week 5-6: Earth's surface processes: weathering, erosion, and landforms. TEKS 5D, 5G, 6A, 6B

Unit 2: The Hydrosphere and Atmosphere: Water, Weather, and Climate

TEKS: 7A, 7B, 7C, 7D, 7E, 7F, 8A, 8B, 8C

- Week 7-8: The water cycle and ocean systems. TEKS 7A, 7B, 7C
- Week 9-10: Atmospheric composition, weather, and climate. TEKS 8A, 8B
- Week 11-12: Climate change, severe weather, and natural hazards. TEKS 7D, 7E, 7F, 8C



Earth Systems Instructional Plan:

Unit 3: The Biosphere: Life and Human Impact

TEKS: 9A, 9B, 9C, 9D, 10A, 10B, 10C

- Week 13-14: Earth's ecosystems and biodiversity. TEKS 9A, 9B
- Week 15-16: Natural resources and energy. TEKS 9C, 9D
- Week 17-18: Human impact on the environment. TEKS 10A, 10B, 10C

Unit 4: Earth's Place in the Universe

TEKS: 11A, 11B, 11C, 11D, 11E

- Week 19-20: Earth-Moon-Sun system and its effects (seasons, tides, eclipses). TEKS 11A, 11B, 11C
- Week 21-22: Our solar system: planets, comets, and asteroids. TEKS 11D, 11E
- Week 23-24: Stars, galaxies, and the expanding universe. TEKS 11D, 11E

Course Resources

- MISD-issued Chromebook
- *Savvas High School Earth Science* textbook
- Google Classroom
- Online resources such as NOAA, NASA, and PhET simulations

Grading Policy

- **Major Assignments:** 60%
- **Minor Assignments:** 40%
- **Semester Exams:** 15% of the final semester grade

According to Midland ISD Grading Policy:

The summative evaluation of a student's grade during a recording period should be based on sufficient data collected in class in the form of various assessments. Regular and periodic assessment of student progress ensures a student has ample time for remediation.

Students must receive feedback on every graded assignment within three to seven days. Major assignments will receive feedback within ten days. Teachers will, at a minimum, communicate with students and their guardians every ten school days regarding upcoming assessments, classroom reminders, learning topics covered in class, and/or expectations. Regular communication may be electronic through the adopted Student Information System or other messaging applications. Teachers will maintain a parent communication log during each grading cycle.

Acknowledgment Form Please sign and return this portion to confirm you have reviewed the Earth & Space Science syllabus and expectations.

Parent Name: _____

Student Name: _____

Cell Phone: _____

Email: _____

Parent Signature: _____

Student Signature: _____

Date: _____