# 6th Science - Instructional Plan: First Semester

## Course Overview

Welcome to 6th Grade Science! This course is designed to spark curiosity and build a strong foundation in scientific thinking, investigation skills, and content knowledge that prepares students for success in middle school science and beyond. Over the course of the year, students will explore Earth, physical, and life sciences while learning how to think like a scientist.

Students will engage in hands-on investigations, real-world problem-solving, STEM challenges, and collaborative learning experiences. The curriculum emphasizes the Texas Essential Knowledge and Skills (TEKS), fostering observation, critical thinking, and the application of science concepts in everyday life.

### Units of Study Include:

1st Six Weeks (Aug. 19 – Sept. 19)

- Unit 01: Scientific Method (5 days)
    - TEKS: 6.1A, 6.1B, 6.1C, 6.2D, 6.5A, 6.5B
    - Focus: Lab safety, scientific inquiry, designing and conducting investigations, data collection, and analysis.
- Unit 02: Properties of Matter (13 days)
    - TEKS: 6.6A, 6.6B, 6.6D, 6.1G, 6.2D, 6.5A, 6.5B
    - Focus: Physical properties, density, states of matter, and classification of substances.
- Flex Days: 5

2nd Six Weeks (Sept. 22 – Oct. 31)

- Unit 03: Elements & Chemical Change (14 days)
    - TEKS: 6.6C, 6.6E, 6.1C, 6.1F, 6.2B, 6.4C, 6.5A
    - Focus: Structure of atoms, periodic table, chemical vs. physical changes, and conservation of mass.
- Unit 04: Force & Motion (14 days)
    - TEKS: 6.7A, 6.7B, 6.7C, 6.1E, 6.1G, 6.2C, 6.5D, 6.5G
    - Focus: Speed, velocity, acceleration, Newton's laws, and forces in everyday life.

3rd Six Weeks (Nov. 4 – Dec. 19)

- Unit 05: Energy (14 days)
    - TEKS: 6.8A, 6.8B, 6.8C, 6.1B, 6.5E
    - Focus: Forms of energy, transformations, and conservation of energy.
- Unit 06: Solar System (10 days)
    - TEKS: 6.9A, 6.9B, 6.1A, 6.1B, 6.1G, 6.5C, 6.5G
    - Focus: Components of the solar system, gravity, and the role of the Sun in the Earth–Moon–Sun system.
- Flex Days: 5

**Instructional Approach:**

We will use a variety of teaching strategies including:

- Hands-on labs and STEM activities
- Interactive notebooks for organization and reflection
- Technology integration using SAVVAS, simulations, and virtual labs
- Collaborative group work and science discussions
- Science and engineering practices aligned with TEKS

Students will learn through inquiry, applying concepts to real-world scenarios, and connecting science to other disciplines.

**Assessment:**

Student progress will be assessed through a combination of:

- Classwork and participation
- Quizzes and tests
- District benchmarks, I-Ready assessments, MAP assessments and STAAR assessments

By the end of this course, students will be equipped with the skills and confidence needed to tackle more advanced math in the coming years. Together, we will make math meaningful, challenging, and fun!

**Learning Objectives by Semester's End**

By the end of the first semester, students will be able to:

1. Investigate like a scientist using the scientific method and safe lab practices.
2. Classify and describe matter based on physical properties.
3. Differentiate chemical and physical changes and explain the conservation of mass.
4. Analyze motion and forces using data and graphical representations.
5. Identify forms of energy and explain energy transformations.
6. Describe the solar system and explain the role of gravity and the Sun.

**Course Resources**

- Science Notebook – for interactive notes, reflections, and lab reports
- SAVVAS digital curriculum
- Lab materials for hands-on investigations
- Laptops/Chromebooks for simulations and research

**Grading Policy**

Following Midland ISD guidelines:

- Major Grades (tests, projects, lab reports) – 60%
- Minor Grades (quizzes, classwork, participation) – 40%
  Homework will count toward minor grades and will not exceed 25% of that category.

**Classroom Expectations**

1. Be Respectful – Listen to others, use kind words, follow lab safety rules.
2. Be Responsible – Bring materials, complete assignments, follow procedures.
3. Be Safe – Follow all lab safety guidelines, use materials appropriately.
4. Be Ready to Learn – Stay on task, ask questions, give your best effort.

**School-wide System of Communication**
Our campus uses ClassDojo to communicate with families. Please ensure you join our class for important updates.

Please feel free to reach out with any questions or concerns. We are excited to work together to make this a successful year of learning!

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**Please fill out the portion below and return this portion to Ms. Davis.** We acknowledge that we have read and that we understand the expectations in [grade level or course]. We agree to contact the teacher should we have any questions or concerns regarding this instructional plan.

Parent Name: _____

Student Name: _____

Cell Phone Number: _____

E-Mail: _____

Parent Signature: _____

Student Signature: _____

Date: _____