Eighth Grade Instructional Plan for Honors Science

Contact Information
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Course Overview

Eighth Grade Honors Science is an integrated science course that emphasizes chemistry, physics, earth and space science, and scientific inquiry. This course is designed for students who are ready to engage in rigorous learning experiences, think critically, solve complex problems, and apply scientific concepts to authentic, real-world situations.

Instruction is based on the Texas Essential Knowledge and Skills (TEKS), with an emphasis on extending learning beyond grade-level expectations through inquiry, analysis of scientific data, engineering design, and scientific argumentation. Students will develop the skills necessary to evaluate evidence, defend scientific claims, and communicate scientific reasoning using appropriate academic vocabulary.

Throughout the year, students will:

- Conduct rigorous, TEKS-aligned laboratory investigations with an emphasis on experimental design, precision, and data analysis.
- Build interactive science notebooks that include vocabulary, diagrams, models, reflections, scientific explanations, and evidence-based conclusions.
- Use digital simulations and physical models to explain complex scientific concepts and evaluate scientific phenomena.
- Collaborate in scientific discussions, peer critiques, and problem-solving activities that require higher-level thinking.
- Participate in STEM engineering design challenges that require innovation, creativity, and application of scientific principles.
- Analyze authentic scientific data, graphs, and case studies to construct evidence-based explanations.
- Complete extension activities and independent investigations that encourage curiosity and deeper exploration of scientific concepts.
- Participate in a spiraling review that reinforces prior learning while making connections across scientific disciplines.

Classroom Expectations

Our classroom is a safe learning place, which encourages teamwork, positive feedback, and academic achievement. All students will be respectful to others. We will be good listeners to the teacher and to other's ideas. All students will be hard working contributors in the process of getting their education in order to be successful and reach their full potential.

Expectation 1: Be Prepared

- Bring all required supplies each day.
- Prioritize attendance and punctuality.
- Come prepared to participate in all learning activities.

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Expectation 2: Take Ownership of Your Learning

- Complete all assignments with accuracy and academic integrity.
- Actively participate in discussions, writing activities, laboratory investigations, and collaborative learning experiences.
- Ask thoughtful questions, justify ideas using scientific evidence, and respectfully challenge the thinking of others.
- Demonstrate perseverance when solving complex scientific problems.
- Complete assignments on time while producing high-quality work that reflects your best effort.

Expectation 3: Be Safe

- Follow all laboratory safety procedures.
- Handle equipment and materials responsibly.
- Walk at all times in the classroom and laboratory.
- Report accidents or safety concerns immediately to an adult.

Positive reinforcement and clear routines will help students learn and meet these expectations. If expectations are not met, the teacher will first reteach and remind the student(s) of expectations. If a student continues to fail to meet expectations, they will be redirected, then parents will be contacted. If a student is unable to meet expectations after these preventative measures, an office referral will be filled out.

Attendance Policy & Its Importance

Regular attendance is vital to your child's academic development. Eighth grade is an important year in science - this year lays the foundation for high school science courses. When students attend daily, they stay current with new skills, deepen their knowledge of the world, develop thinking skills, and practice important habits that support lifelong learning.

Please notify the school if your child will be absent. Frequent or extended absences may make it more difficult for your child to learn necessary foundational skills that ensure student success this year and in future school years.

Learning Objectives

By the end of the year, students will have developed science knowledge such as:

- Safety and how to conduct and investigation
- Traits of organisms
- Change and stability of environments
- Cell structure and function
- Relationship between force and motion
- How energy is transferred
- Properties of matter
- How matter is conserved through chemical changes
- Global weather patterns and their effect on living things
- Components of the universe
- Natural cycles that occur on Earth
- How climate change is affecting processes on Earth

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Course Resources

- Chromebook (provided by Midland ISD)
- Journals and writing utensils (part of the school supply list)
- SAVVAS

Grading Policy

According to Midland ISD Grading Policy:
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.

Major assignments - 60% Minor assignments - 40%
Semester exams count as 15% toward the final semester grade

Classroom Supplies

1 Large spiral notebook (Mead 5 Star preferred with over 100 pages)
1 Plastic folder with brads
Pencils, colored pencils, scissors, glue
Donations of disinfectant wipes, tissue and duck tape would be greatly appreciated.

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!

Please fill out the portion below and return that portion to your teacher.
We acknowledge that we have read and that we understand the expectations in 8th Grade Honors Science. 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:_____