*Moving all students forward - Whatever it takes... Together!*

Tefft Middle School
*Home of the Trojans!*

# 8th Grade Science 2024-25 Syllabus

(630) 213-5535 As Needed, leave a message with secretary.

A Tefft Student...

- ★ Is Always Prepared
- ★ Sets Goals
- ★ Respects Self, Others & School
- ★ Is Always Improving
- ★ Keeps Data
- ★ Gets Results

Learn Like a Champion!
Battle for Success!
Accept Nothing Less!

## Course Name & Description:

Science is a year-long course that will cover six main areas of study. These include Energy, Forces and Interactions, Waves, The History of Earth, Natural Selection, and Human Impacts. Daily procedures include bell ringers, direct instruction,academic teaming- where students collaborate, peer coach, and peer teach while engaged in rigorous, standard based tasks and practice opportunities to solidify understanding of new concepts. Students can expect to work in the lab several times per week. The unit summative assessments will occur every 2-3 weeks (or so) and notification will be provided prior to the test date. Formative assessments will occur sporadically and may not always be announced.

## Classroom Expectations

- ➔ Act according to our Tefft motto: Respect Yourself, Respect Others, and Respect Your School!
- ➔ Wear Student ID at all times when coming back to the building
- ➔ Check Canvas, email and online resources everyday
- ➔ Be in class when the bell rings
- ➔ Begin bell ringer immediately
- ➔ Arrive prepared with all materials
- ➔ Raise my hand to ask or answer questions
- ➔ Show respect to my classmates and my teachers
- ➔ Get dismissed by my teachers, NOT the bell
- ➔ Electronic devices(cell phone, Airpods etc.) must be turned off
- ➔ No gum during class

## Required Daily Supplies/Course Materials, Including Texts

- Charged Chromebook
- Pens/pencils
- Notebook with paper

## STUDENT EVIDENCE/ASSESSMENTS

Assessments based on SBLA demonstrate that students have the knowledge and skills necessary for success in the next grade, next course, and finally for college and career.

Scores do not compare one student to another. They measure how students are doing on the grade/course level standards.
Evidence of learning (summative) and evidence for learning (formative) include any artifact that indicates whether or not a student has achieved proficiency in a standard. This can occur through in-class work, formative events, mid-unit, end of the unit, and end of course assessments.

## PROFICIENCY SCALE

Standards-based rubrics will be used to determine students' level of proficiency, using the 0-4 scale based on set criteria. Rubrics will be distributed at the beginning of a unit of study and referred to throughout the learning progression for the purpose of providing feedback.

## Summative Scores - What does it mean?

4 = Indicates the highest level of competency and skill in the subject matter, demonstrating deep knowledge and the ability to apply the concepts for the course or grade level.
3 = Indicates a solid level of understanding and competency, producing work that consistently meets the standards of the course or grade level.
2 = Indicates partial mastery of the knowledge and skills that are fundamental for the course or grade level. Students may show familiarity with basic concepts, but struggle with more advanced material.
1 = indicates a limited understanding of the skills for the course or grade level. Students may struggle with basic concepts and require support.
0 = No Evidence There is no, or insufficient, evidence of learning to assess the standard at this time

**Final grades posted to a report card will be calculated with the following weights:**

70% - Summative Assessment Scores: Mid / End of the unit measure of student proficiency. Students have 1 reassessment attempt for each summative assessment in a unit and the reassessment attempt must be completed before the end of the next unit. There may be relearning requirements that must be completed before the reassessment attempt.
20% - Formative Assessment Scores: Work that prepares students either in content or in form for the summative assessment. This work must include feedback for students on their results. Formative assessment can be reassessed within the unit but not after the unit summative. Late work will be accepted up until the end of the unit with no penalty.

10% - Intentional Practice Scores: Classwork that supports students in learning the content. Teacher feedback on student progress is required for this work. Intentional practice work is not reassessed and late work is accepted up until the end of the unit

with no penalty. At the end of the unit (when the end of unit summative is submitted), any unsubmitted work will receive a score of zero.

## LATE WORK

Any late work that a student may have must be turned in within the reassessment window. Once the reassessment window is closed, the assessment will no longer be accepted.

## EXTRA CREDIT AND BONUS POINTS

To ensure that grades reflect progress toward and achievement of the standards, **giving extra credit points or bonus points will not occur in this class**. The vision of U-46 is that behavior/participation will be reported separately from academic achievement and is not a component of a student's academic grade.

## GRADE DETERMINATION

Infinite Campus is used to communicate students' proficiency in each assessment, overall reporting strand, and the predicted semester letter grade. The semester letter grade will be informed by the student's learning proficiencies throughout the semester. Mastery of standards leads to mastery of the reporting strands, which in turn leads to mastery of the course.

- Standards-based rubrics will be used to determine students' level of proficiency, using the 0-4 scale, on individual standards and assessments.
- A predicted in-progress letter grade for each reporting strand will be calculated within Infinite Campus by averaging each of the proficiency scores in the strand.
- A predicted semester letter grade for the course will be calculated within Infinite Campus by averaging each of the reporting strands.
- The equal incremental grading scale to determine a letter grade is below.

## ACADEMIC DISHONESTY/PLAGIARISM POLICY

Academic dishonesty refers to cheating, copying, plagiarizing, or otherwise representing the work of others as one's own through verbal, written, graphic, electronic, or other means. Students determined to have been academically dishonest are subject to disciplinary action. Consequences will depend on the severity of the offense, the number of offenses, the impact on other students and teachers, and/or the curriculum. Academic dishonesty undermines the learning process and will not be condoned.

## Attendance - Every Minute Matters

The biggest key to success is attendance. Please ensure that your child attends each and every school day unless he or she is ill. Time off for vacations or traveling sports teams are marked as unexcused absences. All work must be made up. Contact the school each time your child is absent, and provide advance notice to teachers whenever possible for unexcused absences. (Customize, as desired).

| | First Semester |
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| **2 Weeks** | **Beginning of the Year**<br><br>• Time may be needed in the first week (or two) for getting-to-know-you activities, MTSS activities, brief introduction to science safety, etc. |
| **6 Weeks** | **Unit 1 - Energy**<br><br>**Kinetic Energy of an Object**<br>MS PS 3-1 Construct and interpret graphical displays of data to describe the relationships of kinetic energy to the mass of an object and to the speed of an object.<br><br>**Potential Energy of a System**<br>MS PS 3-2 Develop a model to describe that when the arrangement of objects interacting at a distance changes, different amounts of potential energy are stored in the system.<br><br>**Energy Transfer to and from an Object**<br>MS PS 3-5 Construct, use, and present arguments to support the claim that when the kinetic energy of an object changes, energy is transferred to or from the object. |
| **6 Weeks** | **Unit 2 - Forces & Interactions**<br><br>**Collision Design Solution (Newton's 3rd Law)**<br>MS PS 2-1 Apply Newton's Third Law to design a solution to a problem involving the motion of two colliding objects.<br><br>**Forces, Mass, and the Motion of an Object (Newton's 1st & 2nd Law)**<br>MS PS 2-2 Plan an investigation to provide evidence that the change in an object's motion depends on the sum of the forces on the object and the mass of the object.<br><br>**Electric and Magnetic Forces**<br>MS PS 2-3 Ask questions about data to determine the factors that affect the strength of electric and magnetic forces.<br><br>**Gravitational Interactions**<br>MS PS 2-4 Construct and present arguments using evidence to support the claim that gravitational interactions are attractive and depend on the masses of interacting objects. |
| **3 Weeks** | **Unit 3 - Waves**<br><br>**Wave Properties**<br>MS PS 4-1 Use mathematical representations to describe a simple model for waves that includes how the amplitude of a wave is related to the energy in a wave.<br><br>**Wave Reflection, Absorption, and Transmission**<br>MS PS 4-2 Develop and use a model to describe that waves are reflected, absorbed, or transmitted through various materials. |

| | Second Semester |
|---|---|
| **5 Weeks** | **Unit 4 - History of the Earth**<br><br>**Rock Strata:**<br>MS ESS 1-4 Construct a scientific explanation based on evidence from rock strata for how the geologic time scale is used to organize Earth's 4.6-billion-year-old history.<br><br>**Geoscience Processes:**<br>MS ESS 2-2 Construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time and spatial scales.<br><br>**Evidence of Plate Tectonics:**<br>MS ESS 2-3 Analyze and interpret data on the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence that the past plate motions. |
| **8 Weeks** | **Unit 5 - Natural Selection**<br><br>**Fossil Record:**<br>MS LS 4-1 Analyze and interpret data for patterns in the fossil record that document the existence, diversity, extinction, and change of life forms throughout the history of life on Earth under the assumption that natural laws operate today as in the past.<br><br>**Evolutionary Fossil Evidence:**<br>MS LS 4-2 Apply scientific ideas to construct an explanation for the anatomical similarities and differences among modern organisms and between modern and fossil organisms to infer evolutionary relationships.<br><br>**Anatomical Evidence of Evolutionary Relationships:**<br>MS-LS4-3. Analyze displays of pictorial data to compare patterns of similarities in the embryological development across multiple species to identify relationships not evident in the fully formed anatomy.<br><br>**Natural Selection:**<br>MS LS 4-4 Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment.<br><br>**Adaptation of Populations Over Time:**<br>MS LS 4-6 Use mathematical representations to support explanations of how natural selection may lead to increases and decreases of specific traits in populations over time. |
| **6 Weeks** | **Unit 6: Human Impacts**<br><br>**Catastrophic Event**s<br>MS ESS 3-2 Analyze and interpret data on natural hazards to forecast future catastrophic events and inform the development of technologies to mitigate their effects.<br><br>**Human Impact**<br>MS ESS 3-3 Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.<br><br>**Human Population and Consumption of Resources** |

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|---|---|
| | MS ESS 3-4 Construct an argument supported by evidence for how increases in human population and per capita consumption of natural resources impact Earth's systems. |

## Online Resources for Students and Parents

1. **Tefft Middle Schoo**l Website: https://www.u-46.org
2. District **U-46** Website: https://www.u-46.org
3. District U-46 Grading Policy: https://www.u-46.org/Page/16207

## Extra Assistance

- Before and /or after school by appointment only.
- All students are expected to check their grades on Infinite Campus weekly. Should a conference with the teacher be necessary, students will make an appointment with the teacher for a meeting before or after school.

## Canvas

Each student will be joining Canvas. Teachers will use this to communicate with students. All assignments, homework, notes , tests, quizzes, announcements and anything else related to the class will be posted on a daily basis.