

Year at a Glance
Astronomy
TEKS



1 st Grading Period	2 nd Grading Period
<p>Intro to new school year, lab safety, capturing kids hearts, Astronomy vs Astrology</p> <p>Size of the Universe/ History of Astronomy Subunit: Size of the Universe (1 week)</p> <ul style="list-style-type: none"> • Compare size, scale, distance of Earth to Moon, Sun, planets (A.6A-B) • Compare size, scale, distance of stars, galaxies, and the Milky Way Galaxy (A.6C) • Difference between apparent and absolute magnitude (A.6D) • AU and light years (A.6E) <p>Subunit: History of Astronomy (2 weeks)</p> <ul style="list-style-type: none"> • Ancient astronomy of cultures: Stonehenge, The Great Pyramids (Star Clocks), Anasazi (Medicine Wheel), Arabic, Aztec, Mayans, Native Americans (A.4A) • Aid to navigation, agriculture, and architecture (A.4A, 4C) • Predict seasons and other astronomical events (A.4A) <p>Modern Astronomy</p> <ul style="list-style-type: none"> • The Geocentrists (A.3D, 4B) <ul style="list-style-type: none"> ➢ Aristotle ➢ Eratosthenes ➢ Ptolemy • The Heliocentrists (A.3D, 4B) <ul style="list-style-type: none"> ➢ Copernicus ➢ Brahe and Kepler – planetary motion ➢ Galileo ➢ Newton ➢ Mitchell ➢ Leavitt ➢ Cannon ➢ Einstein • Telescope invention (A.4C, 4D) • Contributions of modern astronomy (A.4D) 	<p>Solar System Subunit: The Inner Planets (Terrestrial) (3 weeks)</p> <ul style="list-style-type: none"> • Mercury • Venus • Earth (and the Moon) <ul style="list-style-type: none"> ➢ The Sun, Moon and Earth System (A.5A) ➢ Phases of the Moon (A.7A, B) ➢ Earth's tilt and the Seasons (A.8A-D) ➢ Eclipses (solar and Lunar) (A.7C) ➢ Tides (A.7D) ➢ Factors essential for life on Earth • Mars • Law of Gravitation with natural and artificial satellites (A.9C) <p>Subunit: The Outer Planets (Jovian) (2 weeks) (A.9A-B)</p> <ul style="list-style-type: none"> • Jupiter • Saturn • Uranus • Neptune • Pluto • Law of Gravitation with natural and artificial satellites (A.9C) <p>Extra Solar Objects</p> <ul style="list-style-type: none"> • Comets • Asteroids <ul style="list-style-type: none"> ➢ Asteroid Belt ➢ Kuiper Belt objects <p>Review & Midterm Exam, or Project</p>

3 rd Grading Period	4 th Grading Period
<p>The Night Time Sky (Going Beyond Our Solar System)</p> <ul style="list-style-type: none"> • Constellations (A.5A) <ul style="list-style-type: none"> ➢ Identification and location ➢ Naming constellations • Planets (A.5B) <ul style="list-style-type: none"> ➢ Identification and location ➢ Naming constellations • Large Outer Cosmos Objects <ul style="list-style-type: none"> ➢ Nebulas: Super Nova and Planetary Nebulas (A.13A-C) ➢ Galaxies: Spiral, Elliptical, and Irregular, and Quasars (A.12A-C) <p>The Outer Cosmos Subunit: The Sun and Stars (A.11A-G) (3 weeks)</p> <ul style="list-style-type: none"> • Stellar Mechanics • Formation and normal life of a star • Death of stars and end products • Interpreting light • Electromagnetic spectrum <p>Subunit: Our Sun (A.10A-D) (2 weeks)</p> <ul style="list-style-type: none"> • Composition of the Sun • Mass and fusion • Sunspots and Coronal Mass Ejections • Flares and Magnetic Storms 	<p>History of Space Travel and Exploration (A.14A-D)</p> <ul style="list-style-type: none"> • Mercury Program • Gemini Program • Apollo Program • Sky Lab • Space Shuttle Program • International Space Station (ISS) <p>Current and Future Space Travel and Exploration</p> <ul style="list-style-type: none"> • Space travel technology (A.14A) <ul style="list-style-type: none"> ➢ Propulsion ➢ Sensors ➢ Control and Guidance ➢ Life Support • Unmanned Space Programs • Unmanned planetary exploration (A.14B-D) <ul style="list-style-type: none"> ➢ Early probes ➢ Voyager ➢ Galileo ➢ Cassini ➢ Magellan ➢ Mars Program ➢ New Horizon ➢ Rosetta • Observation (A.14D) <ul style="list-style-type: none"> ➢ Hubble telescope ➢ Kepler Observatory • Constellation Program • Possible Future Missions (A.14E) • Manned Space Exploration <ul style="list-style-type: none"> ➢ Requirements ➢ Objectives <p>Review Project or Final Exam</p>

Process TEKS will be taught throughout the entire year.