# Lunar Quest Mission
# TEKS

| Matter and Energy | |
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| 6.5A | Know that an element is a pure substance represented by chemical symbols; |
| 6.5B | Recognize that a limited number of the many known elements comprise the largest portion of solid Earth, living matter, oceans, and the atmosphere; |
| 6.5C | Differentiate between elements and compounds on the most basic lev |
| 6.6C | Test the physical properties of minerals, including hardness, color, luster, and streak. |
| 6.7A | Research and debate the advantages and disadvantages of using coal, oil, natural gas, nuclear power, biomass, wind, hydropower, geothermal, and solar resources. |
| 6.7B | Design a logical plan to manage energy resources in the home, school, or community |

| Force, Motion and Energy | |
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| 6.8A | Compare and contrast potential and kinetic energy |
| 6.8B | Identify and describe the changes in position, direction, and speed of an object when acted upon by unbalanced forces |
| 8.6A | Demonstrate and calculate how unbalanced forces change the speed or direction of an object's motion |
| 8.6B | Differentiate between speed, velocity, and acceleration |
| 8.6C | Investigate and describe applications of Newton's law of inertia, law of force and acceleration, and law of action-reaction such as in vehicle restraints, sports activities, amusement park rides, Earth's tectonic activities, and rocket launches. |

| Organisms and Environment | |
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| 7.12B | Identify the main functions of the systems of the human organism, including the circulatory, respiratory, skeletal, muscular, digestive, excretory, reproductive, integumentary, nervous, and endocrine systems |
| 7.12C | Recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms |

| Earth and Space | |
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| 6.11A | Describe the physical properties, locations, and movements of the Sun, planets, Galilean moons, meteors, asteroids, and comets |
| 6.11B | Understand that gravity is the force that governs the motion of our solar system |

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| 6.11C | Describe the history and future of space exploration, including the types of equipment and transportation needed for space travel. |
| 7.9A | Analyze the characteristics of objects in our solar system that allow life to exist such as the proximity of the Sun, presence of water, and composition of the atmosphere |
| 7.9B | Identify the accommodations, considering the characteristics of our solar system, that enabled manned space exploration. |
| 8.7A | Model and illustrate how the tilted Earth rotates on its axis, causing day and night, and revolves around the Sun causing changes in seasons |
| 8.7B | Demonstrate and predict the sequence of events in the lunar cycle |
| 8.7C | Relate the position of the Moon and Sun to their effect on ocean tides. |
| 8.8A | Describe components of the universe, including stars, nebulae, and galaxies, and use models such as the Herztsprung-Russell diagram for classification |
| 8.8B | Recognize that the Sun is a medium-sized star near the edge of a disc-shaped galaxy of stars and that the Sun is many thousands of times closer to Earth than any other star |
| 8.8C | Explore how different wavelengths of the electromagnetic spectrum such as light and radio waves are used to gain information about distances and properties of components in the universe; |

| **Scientific Investigation and Reasoning - Process Skills** | |
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| 6.4A, 7.4A, 8.4A | Use appropriate tools to collect, record, and analyze information, including journals/notebooks, beakers, Petri dishes, meter sticks, graduated cylinders, hot plates, test tubes, triple beam balances, microscopes, thermometers, calculators, computers, timing devices, and other equipment as needed to teach the curriculum |
| 6.4B, 7.4B, 8.4B | Use preventative safety equipment, including chemical splash goggles, aprons, and gloves, and be prepared to use emergency safety equipment, including an eye/face wash, a fire blanket, and a fire extinguisher |
| 8.1A | Demonstrate safe practices during laboratory and field investigations as outlined in the Texas Safety Standards |
| 8.1B | Practice appropriate use and conservation of resources, including disposal, reuse, or recycling of materials |
| 8.2E | Analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends |
| 8.3B | Use models to represent aspects of the natural world such as an atom, a molecule, space, or a geologic feature |