



STAAR Quick Reference Sheet Grade 5 Science – 36 Multiple Choice

<http://www.tea.state.tx.us/student.assessment/staar/>

RS	Readiness Standard
SS	Supporting Standard
Process Skills	

Reporting Category 1: Matter & Energy (6 questions)		
5.5A	RS	Classify matter based on measurable, testable, and observable physical properties, including mass, magnetism, physical state (solid, liquid, and gas), relative density (sinking and floating using water as a reference), solubility in water, and the ability to conduct or insulate thermal energy or electric energy.
5.5B	SS	Demonstrate that some mixtures maintain physical properties of their ingredients such as iron filings and sand; and sand and water.
5.5C	SS	Identify changes that can occur in the physical properties of the ingredients of solutions such as dissolving salt in water or adding lemon juice to water.
3.5C	SS	Predict, observe, and record changes in the state of matter caused by heating or cooling such as becoming liquid water, condensation forming on the outside of a glass of ice water or liquid water being heated to the point of becoming water vapor.
Reporting Category 2: Force, Motion & Energy (8 questions)		
5.6A	RS	Explore the uses of energy, including mechanical, light, thermal, electrical, and sound energy.
5.6B	RS	Demonstrate that the flow of electricity in closed circuits can produce light, heat, and sound.
5.6C	RS	Demonstrate that light travels in a straight line until it strikes an object and is reflected or travels through one medium to another is refracted.
5.6D	SS	Design an experiment that tests the effect of force on an object.
3.6B	SS	Demonstrate and observe how position and motion can be changed by pushing and pulling objects such as swings, balls, and wagons.

Reporting Category 3: Earth & Space (10 questions)		
5.7A	RS	Explore the processes that led to the formation of sedimentary rocks and fossil fuels.
5.7B	RS	Recognize how landforms such as deltas, canyons, and sand dunes are the result of changes to Earth's surface by wind, water, and ice.
5.8A	SS	Differentiate between weather and climate.
5.8B	SS	Explain how the Sun and the ocean interact in the water cycle.
5.8C	RS	Demonstrate that Earth rotates on its axis once approximately every 24 hours causing the day/night cycle and the apparent movement of the Sun across the sky.
5.8D	SS	Identify and compare the physical characteristics of the Sun, Earth, and Moon.
4.7A	SS	Examine properties of soils, including color and texture, capacity to retain water, and ability to support the growth of plants.
4.7C	SS	Identify and classify Earth's renewable resources, including air, plants, water, and animals; and nonrenewable resources, including coal, oil, and natural gas; and the importance of conservation.
4.8A	SS	Measure, record, and predict changes in weather.
4.8B	SS	Describe and illustrate the continuous movement of water above and on the surface of Earth through the water cycle and explain the role of the Sun as a major source of energy in this process.
4.8C	SS	Collect and analyze data to identify sequences and predict patterns of change in shadows, seasons, and the observable appearance of the Moon over time.
3.7B	SS	Investigate rapid changes in Earth's surface such as volcanic eruptions, earthquakes, and landslides.
3.8D	SS	Identify the planets in Earth's solar system and their position in relation to the Sun.

Reporting Category 4: Organisms & Environments (12 questions)		
5.9A	RS	Observe the way organisms live and survive in their ecosystem by interacting with the living and non-living components.
5.9B	RS	Describe the flow of energy within a food web, including the roles of the Sun, producers, consumers, and decomposers.
5.9C	SS	Predict the effects of changes in ecosystems caused by living organisms, including humans, such as the overpopulation of grazers or the building of highways.
5.9D	SS	Identify fossils as evidence of past living organisms and the nature of the environments at the time using models.
5.10A	RS	Compare the structures and functions of different species that help them live and survive in a specific environment such as hooves on prairie animals or webbed feet in aquatic animals.
5.10B	RS	Differentiate between inherited traits of plants and animals such as spines on a cactus or shape of a beak and learned behaviors such as an animal learning tricks or a child riding a bicycle.
3.9A	SS	Observe and describe the physical characteristics of environments and how they support populations and communities of plants and animals within an ecosystem.
3.10B	SS	Investigate and compare how animals and plants undergo a series of orderly changes in their diverse life cycles such as tomato plants, frogs, and lady beetles.

Process Skills (embedded at least 40% of the time)	
5.1A	Demonstrate safe practices and the use of safety equipment as outlined in Texas Education Agency-approved safety standards during classroom and outdoor investigations using safety equipment, including safety goggles or chemical splash goggles, as appropriate, and gloves, as appropriate.

5.1B	Make informed choices in the conservation, disposal, and recycling of materials.
5.2A	Describe, plan, and implement simple experimental investigations testing one variable.
5.2B	Ask well-defined questions, formulate testable hypotheses, and select and use appropriate equipment and technology.
5.2C	Collect and record information by detailed observations and accurate measuring.
5.2D	Analyze and interpret information to construct reasonable explanations from direct (observable) and indirect (inferred) evidence.
5.2E	Demonstrate that repeated investigations may increase the reliability of results.
5.2F	Communicate valid conclusions in both written forms.
5.2G	Construct appropriate simple graphs, tables, maps, and charts using technology, including computers, to organize, examine, and evaluate information.
5.3A	Analyze, evaluate, and critique scientific explanations by using evidence, logical reasoning, and experimental and observational testing.
5.3B	Draw or develop a model that represents how something that cannot be seen such as the Sun, Earth, and Moon systems and formation of sedimentary works or looks.
5.3C	Connect grade-level appropriate science concepts with the history of science, science careers, and contributions of scientists
5.4A	Collect, record, and analyze information using tools, including calculators, microscopes, cameras, computers, hand lenses, metric rulers, Celsius thermometers, prisms, mirrors, balances, spring scales, graduated cylinders, beakers, hot plates, meter sticks, magnets, collecting nets, and notebooks; timing devices, and materials to support observations of habitats or organisms such as terrariums and aquariums.

Reporting Categories	Number of Standards		Number of Questions	
	Readiness Standards	Total Number of Standards	11	60% –65%
Supporting Standards	Total Number of Standards	19	35%–40%	12-14