Wimberley ISD 5th Grade Science Year at a Glance
2025-2026

Process Standards & Tools

Process Standards throughout all 9 weeks:

5.1 Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models.

5.2 Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs.

5.5 Recurring themes and concepts. The student understands that recurring themes and concepts provide a framework for making connections across disciplines.

Tools to Know throughout all 9 weeks:

5.1(A) ask questions and define problems based on observations or information from text, phenomena, models, or investigations

5.1(B) use scientific practices to plan and conduct descriptive and simple experimental investigations and use engineering practices to design solutions to problems

5.1(C) demonstrate safe practices and the use of safety equipment during classroom and field investigations as outlined in Texas Education Agency-approved safety standards

5.1(D) use tools, including calculators, microscopes, hand lenses, metric rulers, Celsius thermometers, prisms, concave and convex lenses, laser pointers, mirrors, digital scales, balances, spring scales, graduated cylinders, beakers, hot plates, meter sticks, magnets, collecting nets, notebooks, timing devices, materials for building circuits, materials to support observations of habitats or organisms such as terrariums and aquariums, and materials to support digital data collection such as computers, tablets, and cameras to observe, measure, test, and analyze information

5.1(E) collect observations and measurements as evidence

5.1(F) construct appropriate graphic organizers used to collect data, including tables, bar graphs, line graphs, tree maps, concept maps, Venn diagrams, flow charts or sequence maps, and input-output tables that show cause and effect

5.2(D) evaluate experimental and engineering designs

5.5(A) identify and use patterns to explain scientific phenomena or to design solutions

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1st Grading Period

Unit 1: Properties of Matter: Weeks 3-7

5.6(A) compare and contrast matter based on measurable, testable, or observable physical properties, including mass, magnetism, relative density (sinking and floating using water as a reference point), physical state (solid, liquid, gas), volume, solubility in water, and the ability to conduct or insulate thermal energy and electric energy

5.6(B) demonstrate and explain that some mixtures maintain physical properties of their substances such as iron filings and sand or sand and water

5.6(C) compare the properties of substances before and after they are combined into a solution and demonstrate that matter is conserved in solutions

3.6(C) predict, observe, and record changes in the state of matter caused by heating or cooling in a variety of substances such as ice becoming liquid water, condensation forming on the outside of a glass, or liquid water being heated to the point of becoming water vapor (gas)

5.6(D) illustrate how matter is made up of particles that are too small to be seen such as air in a balloon

Unit 2: Force & Motions: Week 8-9

5.7(A) investigate and explain how equal and unequal forces acting on an object cause patterns of motion and transfer of energy

5.7(B) design a simple experimental investigation that tests the effect of force on an object in a system such as a car on a ramp or a balloon rocket on a string

3.7(A) demonstrate and describe forces acting on an object in contact or at a distance, including magnetism, gravity, and pushes and pulls

3.7(B) plan and conduct a descriptive investigation to demonstrate and explain how position and motion can be changed by pushing and pulling objects such as swings, balls, and wagons

Readiness Standards

Supporting Standards

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2nd Grading Period
Unit 3: Energy: Week 10-13 5.8(B) demonstrate that electrical energy in complete circuits can be transformed into motion, light, sound, or thermal energy and identify the requirements for a functioning electrical circuit 5.8(C) demonstrate and explain how light travels in a straight line and can be reflected, refracted, or absorbed 4.8(A) investigate and identify the transfer of energy by objects in motion, waves in water, and sound **Unit 4: Earth & Space: Week 14-18** 5.9(A) demonstrate that Earth rotates on its axis once approximately every 24 hours and explain how that causes the day/night cycle and the appearance of the Sun moving across the sky, resulting in changes in shadow positions and shapes 4.9(A) collect and analyze data to identify sequences and predict patterns of change in seasons such as change in temperature and length of daylight 4.9(B) collect and analyze data to identify sequences and predict patterns of change in the observable appearance of the Moon from Earth 3.9(B) identify the order of the planets in Earth's solar system in relation to the Sun Readiness Standards Supporting Standards

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3rd Grading Period
Unit 5: Earth's Processes & Forces, Week 19-24 5.10(B) model and describe the processes that led to the formation of sedimentary rocks and fossil fuels 5.10(C) model and identify how changes to Earth's surface by wind, water, or ice result in the formation of landforms, including deltas, canyons, and sand dunes 5.10(A) explain how the Sun and the ocean interact in the water cycle and affect weather 4.10(A) 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 4.10(B) model and describe slow changes to Earth's surface caused by weathering, erosion, and deposition from water, wind, and ice 4.10(C) differentiate between weather and climate 3.10(C) model and describe rapid changes in Earth's surface such as volcanic eruptions, earthquakes, and landslides **Unit 6: Earth's Forces, Week 25-26** 5.10(B) model and describe the processes that led to the formation of sedimentary rocks and fossil fuels. 4.11(A) identify and explain advantages and disadvantages of using Earth's renewable and nonrenewable natural resources such as wind, water, sunlight, plants, animals, coal, oil, and natural gas 5.11(A) design and explain solutions such as conservation, recycling, or proper disposal to minimize environmental impact of the use of natural resources 3.12(D) identify fossils as evidence of past living organisms and environments, including common Texas fossils **Unit 7: Organisms & Environments, Week 27** 5.12(A) observe and describe how a variety of organisms survive by interacting with biotic and abiotic factors in a healthy ecosystem

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4th Grading Period

Unit 7: Organisms & Environments, Week 28

4.12(B) describe the cycling of matter and flow of energy through food webs, including the roles of the Sun, producers, consumers, and decomposers

3.12(B) identify and describe the flow of energy in a food chain and predict how changes in a food chain such as removal of frogs from a pond or bees from a field affect the ecosystem

Unit 8: Structures & Functions: Week 29

5.13(A) analyze the structures and functions of different species to identify how organisms survive in the same environment

Unit 9: STAAR Review Days: Weeks 30-31

Covering main standards that appear weak on previous assessments

STAAR Testing - April 24, 2025

Unit 10: Weeks 32-34

5.12(B) predict how changes in the ecosystem affect the cycling of matter and flow of energy in a food web

5.12(C) describe a healthy ecosystem and how human activities can be beneficial or harmful to an ecosystem

5.13(B) explain how instinctual behavioral traits such as turtle hatchlings returning to the sea and learned behavioral traits such as orcas hunting in packs increase chances of survival

Readiness Standards

Supporting Standard