2022-2023 Scope and Sequence
Science – Grade 6

Cycle 1	29 Days Aug. 22-Sept. 30, 2022	*The recommended number of class periods is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.*
Unit	**# Class Periods**	**Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)** **The student will:**
Unit 1: **Classifying Matter** Students compare forms of matter, identify and describe elements, and distinguish the differences between elements and compounds.	**8** class periods (90-min. each) or **16** class periods (45-min. each) *Teachers Report to Campuses Aug. 8* *Teacher Service Days Aug. 8-12, Aug. 16-19* *Teacher Prep Day (no students) Aug. 15* *Labor Day Sept. 5*	**Science process standards are embedded into lessons on science content throughout the entire year.** **Science Content Standards:** **SCI.6.5A** Know that an element is a pure substance represented by a chemical symbol and that a compound is a pure substance represented by a chemical formula. **SCI.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. **Science Process Standards:** (PS) **SCI.6.1A** Demonstrate safe practices during laboratory and field investigations as outlined in the Texas Education Agency – approved safety standards. (PS) **SCI.6.1B** Practice appropriate use and conservation of resources including disposal, reuse, or recycling of materials. (PS) **SCI.6.2A** Plan and implement comparative and descriptive investigations by making observations, asking well defined questions, and using appropriate equipment and technology. (PS) **SCI.6.2B** Design and implement experimental investigations by making observations, asking well defined questions, formulating testable hypotheses, and using appropriate equipment and technology. (PS) **SCI.6.2C** Collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers. (PS) **SCI.6.2D** Construct tables, using repeated trials and means, to organize data and identify patterns. (PS) **SCI.6.3B** Use models to represent aspects of the natural world such as a model of Earth's layers. (PS) **SCI.6.3C** Identify advantages and limitations of models such as size, scale, properties, and materials. (PS) **SCI.6.4A** Use appropriate tools including journals/notebooks, beakers, Petri dishes, meter sticks, graduated cylinders, hot plates, test tubes, microscopes, thermometers, calculators, computers, timing devices, and other necessary equipment to collect, record and analyze information.

2022-2023 Scope and Sequence
Science – Grade 6

Cycle 1	29 Days Aug. 22-Sept. 30, 2022	*The recommended number of class periods is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.*

Unit	# Class Periods	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
Unit 2: Metals, Nonmetals, and Metalloids Students compare and contrast the properties of metals, nonmetals, and metalloids.	**4** class periods (90-min. each) or **8** class periods (45-min. each)	**Science Content Standards:** Ⓢ **SCI.6.6A** Compare metals, nonmetals, and metalloids using physical properties such as luster, conductivity or malleability. **Science Process Standards:** Ⓟⓢ **SCI.6.1A** Demonstrate safe practices during laboratory and field investigations as outlined in the Texas Education Agency – approved safety standards. Ⓟⓢ **SCI.6.1B** Practice appropriate use and conservation of resources including disposal, reuse, or recycling of materials. Ⓟⓢ **SCI.6.2A** Plan and implement comparative and descriptive investigations by making observations, asking well defined questions, and using appropriate equipment and technology. Ⓟⓢ **SCI.6.2C** Collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers. Ⓟⓢ **SCI.6.2D** Construct tables, using repeated trials and means, to organize data and identify patterns. Ⓟⓢ **SCI.6.3B** Use models to represent aspects of the natural world such as a model of Earth's layers. Ⓟⓢ **SCI.6.3C** Identify advantages and limitations of models such as size, scale, properties, and materials. Ⓟⓢ **SCI.6.4A** Use appropriate tools including journals/notebooks, beakers, Petri dishes, meter sticks, graduated cylinders, hot plates, test tubes, microscopes, thermometers, calculators, computers, timing devices, and other necessary equipment to collect, record and analyze information. Ⓟⓢ **SCI.6.4B** 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.

2022-2023 Scope and Sequence
Science – Grade 6

Cycle 2	23 Days Oct. 3 - Nov. 4, 2022	*The recommended number of class periods is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.*
Unit	**# Class Periods**	**Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)** **The student will:**
Unit 3: Chemical Change and Density Students investigate chemical changes in substances and calculate the density of objects.	**5** class periods (90-min. each) or **10** class periods (45-min. each) *Teacher Service Day (no students) Oct. 4* *Fall Holiday Oct. 5*	**Science Content Standards:** **SCI.6.5C** Identify the formation of a new substance by using the evidence of a possible chemical change such as production of a gas, change in temperature, production of a precipitate, color change. Ⓢ**SCI.6.6B** Calculate density to identify an unknown substance. **Science Process Standards:** Ⓟ**SCI.6.1A** Demonstrate safe practices during laboratory and field investigations as outlined in the Texas Education Agency – approved safety standards. Ⓟ**SCI.6.1B** Practice appropriate use and conservation of resources including disposal, reuse, or recycling of materials. Ⓟ**SCI.6.2B** Design and implement experimental investigations by making observations, asking well defined questions, formulating testable hypotheses, and using appropriate equipment and technology. Ⓟ**SCI.6.2C** Collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers. Ⓟ**SCI.6.2D** Construct tables, using repeated trials and means, to organize data and identify patterns. Ⓟ**SCI.6.2E** Analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends. Ⓟ**SCI.6.3A** Analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning and experimental and observational testing, so as to encourage critical thinking by the student. Ⓟ**SCI.6.3D** Relate the impact of research on scientific thought and society including the history of science and contributions of scientists as related to the content. Ⓟ**SCI.6.4A** Use appropriate tools including journals/notebooks, beakers, Petri dishes, meter sticks, graduated cylinders, hot plates, test tubes, microscopes, thermometers, calculators, computers, timing devices, and other necessary equipment to collect, record and analyze information. Ⓟ**SCI.6.4B** 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.

2022-2023 Scope and Sequence
Science – Grade 6

Cycle 2	23 Days Oct. 3 - Nov. 4, 2022	*The recommended number of class periods is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.*

Unit	# Class Periods	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
Unit 4: **Energy Introduction** Students explore the use of energy in everyday life situations, compare and contrast potential and kinetic energy interactions, and differentiate between different forms of energy transformations	**4** class periods (90-min. each) or **8** class periods (45-min. each)	**Science Content Standards:** Ⓢ **SCI.6.8A** Compare and contrast potential and kinetic energy. Ⓢ **SCI.6.9C** Demonstrate energy transformations such as the energy in a flashlight battery changing from chemical energy to electrical energy to light energy. **Science Process Standards:** Ⓟⓢ **SCI.6.1A** Demonstrate safe practices during laboratory and field investigations as outlined in the Texas Education Agency – approved safety standards. Ⓟⓢ **SCI.6.1B** Practice appropriate use and conservation of resources including disposal, reuse, or recycling of materials. Ⓟⓢ **SCI.6.2A** Plan and implement comparative and descriptive investigations by making observations, asking well defined questions, and using appropriate equipment and technology. Ⓟⓢ **SCI.6.2C** Collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers. Ⓟⓢ **SCI.6.2E** Analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends. Ⓟⓢ **SCI.6.3A** Analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning and experimental and observational testing, so as to encourage critical thinking by the student. Ⓟⓢ **SCI.6.3B** Use models to represent aspects of the natural world such as a model of Earth's layers. Ⓟⓢ **SCI.6.3C** Identify advantages and limitations of models such as size, scale, properties, and materials. Ⓟⓢ **SCI.6.4A** Use appropriate tools including journals/notebooks, beakers, Petri dishes, meter sticks, graduated cylinders, hot plates, test tubes, microscopes, thermometers, calculators, computers, timing devices, and other necessary equipment to collect, record and analyze information. Ⓟⓢ **SCI.6.4B** 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.

2022-2023 Scope and Sequence
Science – Grade 6

Cycle 3	28 Days Nov. 15-Dec. 21, 2022	*The recommended number of class periods is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.*

Unit	# Class Periods	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
Unit 5: Thermal Energy Students investigate thermal energy movement and methods of thermal energy transfer including conduction, convection, and radiation.	**8** class periods (90-min. each) or **16** class periods (45-min. each) *Thanksgiving Break* *Nov. 21-22* *Winter Break (students)* *Dec. 22 - Jan. 6* *Winter Break (teachers)* *Dec. 22 - Jan. 4*	**Science Content Standards:** **SCI.6.9A** Investigate methods of thermal energy transfer, including conduction, convection, and radiation. **SCI.6.9B** Verify through investigations that thermal energy moves in a predictable pattern from warmer to cooler until all the substances attain the same temperature such as an ice cube melting. **Science Process Standards:** (PS) **SCI.6.1B** Practice appropriate use and conservation of resources including disposal, reuse, or recycling of materials. (PS) **SCI.6.2A** Plan and implement comparative and descriptive investigations by making observations, asking well defined questions, and using appropriate equipment and technology. (PS) **SCI.6.2B** Design and implement experimental investigations by making observations, asking well defined questions, formulating testable hypotheses, and using appropriate equipment and technology. (PS) **SCI.6.2C** Collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers. (PS) **SCI.6.2D** Construct tables, using repeated trials and means, to organize data and identify patterns. (PS) **SCI.6.2E** Analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends. (PS) **SCI.6.4A** Use appropriate tools including journals/notebooks, beakers, Petri dishes, meter sticks, graduated cylinders, hot plates, test tubes, microscopes, thermometers, calculators, computers, timing devices, and other necessary equipment to collect, record and analyze information. (PS) **SCI.6.4B** 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.

2022-2023 Scope and Sequence
Science – Grade 6

Cycle 3	28 Days Nov. 15-Dec. 21, 2022	*The recommended number of class periods is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.*

Unit	# Class Periods	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
Unit 6: **Energy Resources** Students research and discuss the advantages and disadvantages of energy resources.	**4** class periods (90-min. each) or **8** class periods (45-min. each)	**Science Content Standards:** **SCI.6.7B** Research and discuss the advantages and disadvantages of using coal, oil, natural gas, nuclear power, biomass, wind, hydropower, geothermal, and solar resources. **Science Process Standards:** Ⓟⓢ **SCI.6.1B** Practice appropriate use and conservation of resources including disposal, reuse, or recycling of materials. Ⓟⓢ **SCI.6.2A** Plan and implement comparative and descriptive investigations by making observations, asking well defined questions, and using appropriate equipment and technology. Ⓟⓢ **SCI.6.2C** Collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers. Ⓟⓢ **SCI.6.2D** Construct tables, using repeated trials and means, to organize data and identify patterns. Ⓟⓢ **SCI.6.2E** Analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends. Ⓟⓢ **SCI.6.3D** Relate the impact of research on scientific thought and society including the history of science and contributions of scientists as related to the content. Ⓟⓢ **SCI.6.4A** Use appropriate tools including journals/notebooks, beakers, Petri dishes, meter sticks, graduated cylinders, hot plates, test tubes, microscopes, thermometers, calculators, computers, timing devices, and other necessary equipment to collect, record and analyze information. Ⓟⓢ **SCI.6.4B** 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.

2022-2023 Scope and Sequence
Science – Grade 6

Cycle 4	33 Days Jan. 9 - Feb. 24, 2023	*The recommended number of class periods is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.*
Unit	**# Class Periods**	**Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)** **The student will:**
Unit 7: **Force and Motion** Students explore changes in the motion of objects as a result of forces being applied, calculate speed of objects, and measure and graph changes in motion.	**10** class periods (90-min. each) or **20** class periods (45-min. each) *Winter Break (students)* *Dec. 22 - Jan. 6* *Winter Break (teachers)* *Dec. 22 - Jan. 4* *MLK Jr. Day* *Jan. 16* *Teacher Service Days* *(No Students)* *Jan.5, 6, Feb. 20*	**Science Content Standards:** Ⓢ **SCI.6.8A** Compare and contrast potential and kinetic energy. Ⓢ **SCI.6.8B** Identify and describe the changes in position, direction, and speed of an object when acted upon by unbalanced forces. Ⓢ **SCI.6.8C** Calculate average speed using distance and time measurements. Ⓢ **SCI.6.8D** Measure and graph changes in motion. **Science Process Standards:** Ⓟⓢ **SCI.6.1A** Demonstrate safe practices during laboratory and field investigations as outlined in the Texas Education Agency – approved safety standards. Ⓟⓢ **SCI.6.2A** Plan and implement comparative and descriptive investigations by making observations, asking well defined questions, and using appropriate equipment and technology. Ⓟⓢ **SCI.6.2C** Collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers. Ⓟⓢ **SCI.6.2D** Construct tables, using repeated trials and means, to organize data and identify patterns. Ⓟⓢ **SCI.6.2E** Analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends. Ⓟⓢ **SCI.6.3B** Use models to represent aspects of the natural world such as a model of Earth's layers. Ⓟⓢ **SCI.6.3C** Identify advantages and limitations of models such as size, scale, properties, and materials. Ⓟⓢ **SCI.6.3D** Relate the impact of research on scientific thought and society including the history of science and contributions of scientists as related to the content. Ⓟⓢ **SCI.6.4A** Use appropriate tools including journals/notebooks, beakers, Petri dishes, meter sticks, graduated cylinders, hot plates, test tubes, microscopes, thermometers, calculators, computers, timing devices, and other necessary equipment to collect, record and analyze information.

2022-2023 Scope and Sequence
Science – Grade 6

Cycle 4	33 Days Jan. 9 - Feb. 24, 2023	*The recommended number of class periods is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.*

Unit	# Class Periods	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
Unit 8: **Simple Machines and STEM** Students investigate how simple machines such as inclined planes are used in everyday situations.	**4** class periods (90-min. each) or **8** class periods (45-min. each)	**Science Content Standards:** **SCI.6.8E** Investigate how inclined planes can be used to change the amount of force to move an object. **Science Process Standards:** Ⓟⓢ **SCI.6.1A** Demonstrate safe practices during laboratory and field investigations as outlined in the Texas Education Agency – approved safety standards. Ⓟⓢ **SCI.6.2A** Plan and implement comparative and descriptive investigations by making observations, asking well defined questions, and using appropriate equipment and technology. Ⓟⓢ **SCI.6.2C** Collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers. Ⓟⓢ **SCI.6.2D** Construct tables, using repeated trials and means, to organize data and identify patterns. Ⓟⓢ **SCI.6.2E** Analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends. Ⓟⓢ **SCI.6.3B** Use models to represent aspects of the natural world such as a model of Earth's layers. Ⓟⓢ **SCI.6.3C** Identify advantages and limitations of models such as size, scale, properties, and materials. Ⓟⓢ **SCI.6.3D** Relate the impact of research on scientific thought and society including the history of science and contributions of scientists as related to the content. Ⓟⓢ **SCI.6.4A** Use appropriate tools including journals/notebooks, beakers, Petri dishes, meter sticks, graduated cylinders, hot plates, test tubes, microscopes, thermometers, calculators, computers, timing devices, and other necessary equipment to collect, record and analyze information.

2022-2023 Scope and Sequence
Science – Grade 6

Cycle 5	28 Days Feb. 27 - Apr. 14, 2023	*The recommended number of class periods is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.*
Unit	**# Class Periods**	**Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)** **The student will:**
Unit 9: **Rock Cycle** Students model the layers of Earth, test properties of minerals, and classify rocks by the process of their formation.	**6** class periods (90-min. each) or **12** class periods (45-min. each) *Spring Break* *Mar. 13-17* *Chávez-Huerta Day* *Mar. 31* *Spring Holiday* *Apr. 7*	**Science Content Standards:** **SCI.6.6C** Test the physical properties of minerals, including hardness, color, luster, and streak. **SCI.6.10A** Build a model to illustrate the compositional and mechanical layers of Earth, including the inner core, outer core, mantle, crust, asthenosphere, and lithosphere. **SCI.6.10B** Classify rocks as metamorphic, igneous, or sedimentary by the processes of their formation. **Science Process Standards:** (PS) **SCI.6.1A** Demonstrate safe practices during laboratory and field investigations as outlined in the Texas Education Agency – approved safety standards. (PS) **SCI.6.1B** Practice appropriate use and conservation of resources including disposal, reuse, or recycling of materials. (PS) **SCI.6.2A** Plan and implement comparative and descriptive investigations by making observations, asking well defined questions, and using appropriate equipment and technology. (PS) **SCI.6.2C** Collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers. (PS) **SCI.6.2D** Construct tables, using repeated trials and means, to organize data and identify patterns. (PS) **SCI.6.2E** Analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends. (PS) **SCI.6.3B** Use models to represent aspects of the natural world such as a model of Earth's layers. (PS) **SCI.6.3C** Identify advantages and limitations of models such as size, scale, properties, and materials. (PS) **SCI.6.4A** Use appropriate tools including journals/notebooks, beakers, Petri dishes, meter sticks, graduated cylinders, hot plates, test tubes, microscopes, thermometers, calculators, computers, timing devices, and other necessary equipment to collect, record and analyze information. (PS) **SCI.6.4B** 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.

2022-2023 Scope and Sequence
Science – Grade 6

Cycle 5	28 Days Feb. 27 - Apr. 14, 2023	*The recommended number of class periods is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.*

Unit	# Class Periods	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
Unit 10: **Plate Tectonics** Students identify and describe major tectonic plates found on Earth and describe how plate movements contribute to many major geological events.	**3** class periods (90-min. each) or **6** class periods (45-min. each)	**Science Content Standards:** **SCI.6.10C** Identify the major tectonic plates including Eurasian, African, Indo-Australian, Pacific, North American, and South American. **SCI.6.10D** Describe how plate tectonics causes major geological events such as ocean basin formation, earthquakes, volcanic eruptions, and mountain building. **Science Process Standards:** (PS) **SCI.6.1A** Demonstrate safe practices during laboratory and field investigations as outlined in the Texas Education Agency – approved safety standards. (PS) **SCI.6.1B** Practice appropriate use and conservation of resources including disposal, reuse, or recycling of materials. (PS) **SCI.6.2A** Plan and implement comparative and descriptive investigations by making observations, asking well defined questions, and using appropriate equipment and technology. (PS) **SCI.6.2C** Collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers. (PS) **SCI.6.2D** Construct tables, using repeated trials and means, to organize data and identify patterns. (PS) **SCI.6.2E** Analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends. (PS) **SCI.6.3B** Use models to represent aspects of the natural world such as a model of Earth's layers. (PS) **SCI.6.3C** Identify advantages and limitations of models such as size, scale, properties, and materials. (PS) **SCI.6.3D** Relate the impact of research on scientific thought and society including the history of science and contributions of scientists as related to the content. (PS) **SCI.6.4A** Use appropriate tools including journals/notebooks, beakers, Petri dishes, meter sticks, graduated cylinders, hot plates, test tubes, microscopes, thermometers, calculators, computers, timing devices, and other necessary equipment to collect, record and analyze information.
Unit 11:	**3** class periods	**Science Content Standards:**

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Science – Grade 6

Cycle 5	28 Days Feb. 27 - Apr. 14, 2023	*The recommended number of class periods is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.*

Unit	# Class Periods	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
Space Science Students identify and describe components of the solar system and conduct research on the history and future of space exploration.	(90-min. each) or **6** class periods (45-min. each)	**SCI.6.11A** Describe the physical properties, locations, and movements of the Sun, planets, moons, meteors, asteroids, and comets. Ⓢ **SCI.6.11B** Understand that gravity is the force that governs the motion of our solar system. **SCI.6.11C** Describe the history and future of space exploration, including the types of equipment and transportation needed for space travel. **Science Process Standards:** Ⓟ**S** **SCI.6.2A** Plan and implement comparative and descriptive investigations by making observations, asking well defined questions, and using appropriate equipment and technology. Ⓟ**S** **SCI.6.2C** Collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers. Ⓟ**S** **SCI.6.2D** Construct tables, using repeated trials and means, to organize data and identify patterns. Ⓟ**S** **SCI.6.2E** Analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends. Ⓟ**S** **SCI.6.3B** Use models to represent aspects of the natural world such as a model of Earth's layers. Ⓟ**S** **SCI.6.3C** Identify advantages and limitations of models such as size, scale, properties, and materials. Ⓟ**S** **SCI.6.3D** Relate the impact of research on scientific thought and society including the history of science and contributions of scientists as related to the content.

2022-2023 Scope and Sequence
Science – Grade 6

Cycle 6	31 Days Apr. 17 - May 31, 2023	*The recommended number of class periods is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.*
Unit	**# Class Periods**	**Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)** **The student will:**
Unit 12: **Cells** Students identify and describe basic components of cells and compare characteristics of prokaryotic to eukaryotic cells.	**4** class periods (90-min. each) or **8** class periods (45-min. each) *Memorial Day* *May 29* *Teacher Prep Day (no students)* *June 1*	**Science Content Standards:** **SCI.6.12A** Understand that all organisms are composed of one or more cells. **SCI.6.12B** Recognize the presence of a nucleus is a key factor used to determine whether a cell is prokaryotic or eukaryotic. **Science Process Standards:** (PS) **SCI.6.1A** Demonstrate safe practices during laboratory and field investigations as outlined in the Texas Education Agency – approved safety standards. (PS) **SCI.6.2A** Plan and implement comparative and descriptive investigations by making observations, asking well defined questions, and using appropriate equipment and technology. (PS) **SCI.6.2C** Collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers. (PS) **SCI.6.2D** Construct tables, using repeated trials and means, to organize data and identify patterns. (PS) **SCI.6.2E** Analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends. (PS) **SCI.6.3A** Analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning and experimental and observational testing, so as to encourage critical thinking by the student. (PS) **SCI.6.3B** Use models to represent aspects of the natural world such as a model of Earth's layers. (PS) **SCI.6.3C** Identify advantages and limitations of models such as size, scale, properties, and materials. (PS) **SCI.6.3D** Relate the impact of research on scientific thought and society including the history of science and contributions of scientists as related to the content. (PS) **SCI.6.4A** Use appropriate tools including journals/notebooks, beakers, Petri dishes, meter sticks, graduated cylinders, hot plates, test tubes, microscopes, thermometers, calculators, computers, timing devices, and other necessary equipment to collect, record and analyze information. (PS) **SCI.6.4B** 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.

2022-2023 Scope and Sequence
Science – Grade 6

Cycle 6	31 Days Apr. 17 - May 31, 2023	*The recommended number of class periods is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.*
Unit	**# Class Periods**	**Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)** **The student will:**
Unit 13: Classifying Organisms Students identify and classify organisms from currently recognized domains.	**5** class periods (90-min. each) or **10** class periods (45-min. each)	**Science Content Standards:** **SCI.6.12C** Recognize that the broadest taxonomic classification of living organisms is divided into currently recognized domains. Ⓢ **SCI.6.12D** Identify the basic characteristics of organisms, including prokaryotic or eukaryotic, unicellular or multicellular, autotrophic or heterotrophic, and mode of reproduction, that further classify them in the currently recognized kingdoms. **Science Process Standards:** Ⓟⓢ **SCI.6.2A** Plan and implement comparative and descriptive investigations by making observations, asking well defined questions, and using appropriate equipment and technology. Ⓟⓢ **SCI.6.2C** Collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers. Ⓟⓢ **SCI.6.2D** Construct tables, using repeated trials and means, to organize data and identify patterns. Ⓟⓢ **SCI.6.2E** Analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends. Ⓟⓢ **SCI.6.3A** Analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, so as to encourage critical thinking by the student. Ⓟⓢ **SCI.6.3B** Use models to represent aspects of the natural world such as a model of Earth's layers. Ⓟⓢ **SCI.6.3C** Identify advantages and limitations of models such as size, scale, properties, and materials. Ⓟⓢ **SCI.6.3D** Relate the impact of research on scientific thought and society including the history of science and contributions of scientists as related to the content. Ⓟⓢ **SCI.6.4A** Use appropriate tools including journals/notebooks, beakers, Petri dishes, meter sticks, graduated cylinders, hot plates, test tubes, microscopes, thermometers, calculators, computers, timing devices, and other necessary equipment to collect, record and analyze information.

2022-2023 Scope and Sequence
Science – Grade 6

Cycle 6	31 Days Apr. 17 - May 31, 2023	*The recommended number of class periods is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.*
Unit	**# Class Periods**	**Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)** **The student will:**
Unit 14: Ecosystems Students describe components of ecosystems in which organisms interact	**4** class periods (90-min. each) or **8** class periods (45-min. each)	**Science Content Standards:** Ⓢ **SCI.6.12D** Identify the basic characteristics of organisms, including prokaryotic or eukaryotic, unicellular or multicellular, autotrophic or heterotrophic, and mode of reproduction, that further classify them in the currently recognized kingdoms. **SCI.6.12E** Describe biotic and abiotic parts of an ecosystem in which organisms interact. **SCI.6.12F** Diagram the levels of organization within an ecosystem including organism, population, community, and ecosystem. **Science Process Standards:** Ⓟⓢ **SCI.6.1A** Demonstrate safe practices during laboratory and field investigations as outlined in the Texas Education Agency – approved safety standards. Ⓟⓢ **SCI.6.2A** Plan and implement comparative and descriptive investigations by making observations, asking well defined questions, and using appropriate equipment and technology. Ⓟⓢ **SCI.6.2C** Collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers. Ⓟⓢ **SCI.6.2D** Construct tables, using repeated trials and means, to organize data and identify patterns. Ⓟⓢ **SCI.6.2E** Analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends. Ⓟⓢ **SCI.6.3A** Analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning and experimental and observational testing, so as to encourage critical thinking by the student. Ⓟⓢ **SCI.6.3B** Use models to represent aspects of the natural world such as a model of Earth's layers. Ⓟⓢ **SCI.6.3C** Identify advantages and limitations of models such as size, scale, properties, and materials. Ⓟⓢ **SCI.6.4A** Use appropriate tools including journals/notebooks, beakers, Petri dishes, meter sticks, graduated cylinders, hot plates, test tubes, microscopes, thermometers, calculators, computers, timing devices, and other necessary equipment to collect, record and analyze information. Ⓟⓢ **SCI.6.4B** 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.