







SCIENCE TEKS
Side-by-Sides

— FOR TEACHERS —
ELEMENTARY



K.1 Scientific investigation and reasoning. The student conducts classroom and outdoor investigations following home and school safety procedures and uses environmentally appropriate and responsible practices. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
K.1(A) 	identify, discuss , and demonstrate safe and healthy practices as outlined in the TEA-approved safety standards during classroom and outdoor investigations, including wearing safety goggles, washing hands, and using materials appropriately	K.1(A) identify and demonstrate safe practices as described in the <i>Texas Safety Standards</i> during classroom and outdoor investigations, including wearing safety goggles, washing hands, and using materials appropriately	Revised <ul style="list-style-type: none"> Clarified safety standards
		K.1(B) discuss the importance of safe practices to keep self and others safe and healthy	2010 Standard Deleted <ul style="list-style-type: none"> Safe practices now addressed in K.1(A)
K.1(B) 	demonstrate how to use, conserve, and dispose of natural resources and materials such as conserving water and reusing or recycling paper, plastic, and metal	K.1(C) demonstrate how to use, conserve, and dispose of natural resources and materials such as conserving water and reusing or recycling paper, plastic, and metal	Recoded <ul style="list-style-type: none"> Recoded K.1(C) to K.1(B) <p>No change in content</p>


K.2 Scientific investigation and reasoning. The student develops abilities to ask questions and seek answers in classroom and outdoor investigations. The student is expected to:


Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
K.2(A)	ask questions about organisms, objects, and events observed in the natural world	K.2(A) ask questions about organisms, objects, and events observed in the natural world	No change in content
K.2(B) 	plan and conduct simple descriptive investigations	K.2(B) plan and conduct simple descriptive investigations such as ways objects move	Revised <ul style="list-style-type: none"> Removed: such as ways objects move Clarified to be open ended
K.2(C) 	collect data and make observations using simple tools	K.2(C) collect data and make observations using simple equipment such as hand lenses, primary balances, and non-standard measurement tools	Revised <ul style="list-style-type: none"> Removed: examples of simple equipment Clarified to be open ended
K.2(D)	record and organize data and observations using pictures, numbers, and words	K.2(D) record and organize data and observations using pictures, numbers, and words	No change in content
K.2(E) 	communicate observations about simple descriptive investigations	K.2(E) communicate observations with others about simple descriptive investigations	Revised <ul style="list-style-type: none"> Clarified standard


K.3 Scientific investigation and reasoning. The student knows that information and critical thinking are used in scientific problem solving. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
K.3(A) 	identify and explain a problem, such as the impact of littering, and propose a solution	K.3(A) identify and explain a problem such as the impact of littering <i>on the playground</i> and propose a solution <i>in his/her own words</i>	Revised <ul style="list-style-type: none"> Removed: example (playground) Clarified to be open ended
K.3(B) 	make predictions based on observable patterns in nature	K.3(B) make predictions based on observable patterns in nature <i>such as the shapes of leaves</i>	Revised <ul style="list-style-type: none"> Removed: example (shape or leaves) Clarified to be open ended
K.3(C)	explore that scientists investigate different things in the natural world and use tools to help in their investigations	K.3(C) explore that scientists investigate different things in the natural world and use tools to help in their investigations	No change in content

K.4 Scientific investigation and reasoning. The student uses age-appropriate tools and models to investigate the natural world. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
K.4(A) 	collect information using tools, including computing devices , hand lenses, primary balances, cups, bowls, magnets, collecting nets, and notebooks; timing devices; non-standard measuring item: weather instruments such as demonstration thermometers; and materials to support observations of habitats of organisms such as terrariums and aquariums	K.4(A) collect information using tools, including <i>computers</i> , hand lenses, primary balances, cups, bowls, magnets, collecting nets, and notebooks; timing devices, <i>including clocks and timers</i> ; non-standard measuring items <i>such as paper clips and clothespins</i> ; weather instruments such as demonstration thermometers <i>and wind socks</i> ; and materials to support observations of habitats of organisms such as terrariums and aquariums	Revised <ul style="list-style-type: none"> Replaced: computer with computing devices Removed: specificity of timing devices (clocks and timers), non-standard measuring items (paper clips and clothespins), and weather instruments (wind socks) Wind socks are introduced in grade 1
K.4(B)	use the senses as a tool of observation to identify properties and patterns of organisms, objects, and events in the environment	K.4(B) use senses as a tool of observation to identify properties and patterns of organisms, objects, and events in the environment	No change in content

K.5 Matter and energy. The student knows that objects have properties and patterns. The student is expected to:			
Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
K.5(A) 	observe and record properties of objects, including bigger or smaller, heavier or lighter, shape, color, and texture	K.5(A) observe and record properties of objects, including relative size and mass, such as bigger or smaller and heavier or lighter, shape, color, and texture	Revised <ul style="list-style-type: none"> Removed: relative size and mass Impact <ul style="list-style-type: none"> Focus is on basic physical properties Mass is formally introduced in grade 3
K.5(B)	observe, record, and discuss how materials can be changed by heating or cooling	K.5(B) observe, record, and discuss how materials can be changed by heating or cooling	No change in content

K.6 Force, motion, and energy. The student knows that energy, force, and motion are related and are a part of their everyday life. The student is expected to:			
Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
K.6(A) 	use the senses to explore different forms of energy such as light, thermal, and sound	K.6(A) use the five senses to explore different forms of energy such as light, heat, and sound	Revised <ul style="list-style-type: none"> Replaced: heat with thermal Removed: five (senses) Impact <ul style="list-style-type: none"> The term heat regarding energy has been removed from all student expectations, the standard language K-5 is now thermal energy
K.6(B)	explore interactions between magnets and various materials	K.6(B) explore interactions between magnets and various materials	No change in content
K.6C	observe and describe the location of an object in relation to another such as above, below, behind, in front of, and beside	K.6(C) observe and describe the location of an object in relation to another such as above, below, behind, in front of, and beside	No change in content
K.6D	observe and describe the ways that objects can move such as in a straight line, zigzag, up and down, back and forth, round and round, and fast and slow	K.6(D) observe and describe the ways that objects can move such as in a straight line, zigzag, up and down, back and forth, round and round, and fast and slow	No change in content

K.7 Earth and space. The student knows that the natural world includes earth materials. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
K.7(A) 	observe, describe, and sort rocks by size, shape, color, and texture	K.7(A) observe, describe, and compare, and sort rocks by size, shape, color, and texture	Revised • Removed: compare
K.7(B)	observe and describe physical properties of natural sources of water, including color and clarity	K.7(B) observe and describe physical properties of natural sources of water, including color and clarity	No change in content
K.7(C)	give examples of ways rocks, soil, and water are useful	K.7(C) give examples of ways rocks, soil, and water are useful	No change in content

K.8 Earth and space. The student knows that there are recognizable patterns in the natural world and among objects in the sky. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
K.8(A)	observe and describe weather changes from day to day and over seasons	K.8(A) observe and describe weather changes from day to day and over seasons	No change in content
K.8(B)	identify events that have repeating patterns, including seasons of the year and day and night	K.8(B) identify events that have repeating patterns, including seasons of the year and day and night	No change in content
K.8(C)	observe, describe, and illustrate objects in the sky such as the clouds, Moon, and stars, including the Sun	K.8(C) observe, describe, and illustrate objects in the sky such as the clouds, Moon, and stars, including the Sun	No change in content



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K.9 Organisms and environments. The student knows that plants and animals have basic needs and depend on the living and nonliving things around them for survival. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
K.9(A) 	differentiate between living things and nonliving things based upon whether they have or have had basic needs and produce offspring	K.9(A) differentiate between living and nonliving things based upon whether they have basic needs and produce offspring	Revised <ul style="list-style-type: none"> • Clarified standard • Added: have had
K.9(B)	examine evidence that living organisms have basic needs such as food, water, and shelter for animals and air, water, nutrients, sunlight, and space for plants	K.9(B) examine evidence that living organisms have basic needs such as food, water, and shelter for animals and air, water, nutrients, sunlight, and space for plants	No change in content

K.10 Organisms and environments. The student knows that organisms resemble their parents and have structures and processes that help them survive within their environments. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
K.10(A)	sort plants and animals into groups based on physical characteristics such as color, size, body covering, or leaf shape	K.10(A) sort plants and animals into groups based on physical characteristics such as color, size, body covering, or leaf shape	No change in content
K.10(B) 	identify basic parts of plants and animal	K.10(B) identify parts of plants such as roots, stem, and leaves and parts of animals such as head, eyes, and limbs	Revised <ul style="list-style-type: none"> • Added: basic (parts of plants and animals) • Removed: specificity of parts of plants and animals
K.10(C)	identify ways that young plants resemble the parent plant	K.10(C) identify ways that young plants resemble the parent plant	No change in content
K.10(D)	observe changes that are part of a simple life cycle of a plant: seed, seedling, plant, flower, and fruit	K.10(D) observe changes that are part of a simple life cycle of a plant: seed, seedling, plant, flower, and fruit	No change in content

1.1 Scientific investigation and reasoning. The student conducts classroom and outdoor investigations following home and school safety procedures and uses environmentally appropriate and responsible practices. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
1.1(A) 	identify, discuss, and demonstrate safe and healthy practices as outlined in the TEA-approved safety standards during classroom and outdoor investigations, including wearing safety goggles, washing hands, and using materials appropriately	1.1(A) <i>recognize</i> and demonstrate safe practices as described in the <i>Texas Safety Standards</i> during classroom and outdoor investigations, including wearing safety goggles, washing hands, and using materials appropriately	Revised <ul style="list-style-type: none"> • Clarified safety standards
		1.1(B) recognize the importance of safe practices to keep self and others safe and healthy	2010 Standard Deleted <ul style="list-style-type: none"> • Safe practices now addressed in 1.1(A)
1.1(B) 	identify and learn how to use natural resources and materials, including conservation and reuse or recycling of paper, plastic, and metals	1.1(C) identify and learn how to use natural resources and materials, including conservation and reuse or recycling of paper, plastic, and metals	Recoded <ul style="list-style-type: none"> • Recoded 1.1(C) to 1.1(B) No change in content



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1.2 Scientific investigation and reasoning. The student develops abilities to ask questions and seek answers in classroom and outdoor investigations. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
1.2(A)	ask questions about organisms, objects, and events observed in the natural world	1.2(A) ask questions about organisms, objects, and events observed in the natural world	No change in content
1.2(B) 	plan and conduct simple descriptive investigations	1.2(B) plan and conduct simple descriptive investigations such as ways objects move	Revised <ul style="list-style-type: none"> Removed: such as ways objects move Clarified to be open ended
1.2(C) 	collect data and make observations using simple tools	1.2(C) collect data and make observations using simple equipment such as hand lenses, primary balances, and non-standard measurement tools	Revised <ul style="list-style-type: none"> Removed: examples of simple equipment Clarified to be open ended
1.2(D)	record and organize data using pictures, numbers, and words	1.2(D) record and organize data using pictures, numbers, and words	No change in content
1.2(E)	communicate observations and provide reasons for explanations using student-generated data from simple descriptive investigations	1.2(E) communicate observations and provide reasons for explanations using student-generated data from simple descriptive investigations	No change in content



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1.3 Scientific investigation and reasoning. The student knows that information and critical thinking are used in scientific problem solving. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
1.3(A) 	identify and explain a problem and propose a solution	1.3(A) identify and explain a problem such as finding a home for a classroom pet and propose a solution in his/her own words	<p>Revised</p> <ul style="list-style-type: none"> Removed: examples Clarified to be open ended <p>Impact</p> <ul style="list-style-type: none"> This standard is broader in scope and focuses on the process of problem/solution and can be applied across disciplines of science
1.3(B)	make predictions based on observable patterns	1.3(B) make predictions based on observable patterns	No change in content
1.3(C)	describe what scientists do	1.3(C) describe what scientists do	No change in content


1.4 Scientific investigation and reasoning. The student uses age-appropriate tools and models to investigate the natural world. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
1.4(A) 	collect, record, and compare information using tools, including computing devices , hand lenses, primary balances, cups, bowls, magnets, collecting nets, notebooks, and safety goggles; timing devices; non-standard measuring items; weather instruments such as demonstration thermometers and wind socks; and materials to support observations of habitats of organisms such as aquariums and terrariums	1.4(A) collect, record, and compare information using tools, including computers , hand lenses, primary balances, cups, bowls, magnets, collecting nets, notebooks, and safety goggles; timing devices, including clocks and timers ; non-standard measuring items such as paper clips and clothespins ; weather instruments such as classroom demonstration thermometers and wind socks; and materials to support observations of habitats of organisms such as aquariums and terrariums	<p>Revised</p> <ul style="list-style-type: none"> Replaced: computer with computing devices Removed: specificity of timing devices (clocks and timers), Non-standard measuring items (paperclips and clothespins)
1.4(B)	measure and compare organisms and objects using non-standard units	1.4(B) measure and compare organisms and objects using non-standard units	No change in content


1.5 Matter and energy. The student knows that objects have properties and patterns. The student is expected to:			
Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact
1.5(A) 	classify objects by observable properties such as larger and smaller, heavier and lighter, shape, color, and texture	1.5(A) classify objects by observable properties of the materials from which they are made such as larger and smaller, heavier and lighter, shape, color, and texture	Revised <ul style="list-style-type: none"> Content from 2010 TEKS 1.5(A) was divided into two standards Materials from which objects are made as a way to classify objects is a separate standard 1.5(C)
1.5(B) 	predict and identify changes in materials caused by heating and cooling	1.5(B) predict and identify changes in materials caused by heating and cooling such as ice melting, water freezing, and water evaporating	Revised <ul style="list-style-type: none"> Removed: ice melting, water freezing, and water evaporating as examples for changes caused by heating and cooling Impact <ul style="list-style-type: none"> The focus is on predicting and observing the changes from heating and cooling
1.5(C) 	Classify objects by the materials from which they are made	1.5(A) classify objects by observable properties of the materials from which they are made such as larger and smaller, heavier and lighter, shape, color, and texture	Standard Revised and Recoded <ul style="list-style-type: none"> Content from 2010 TEKS 1.5(A) was divided into two standards Move to clarify concept and differentiate between properties of the materials from which it was made

1.6 Force, motion, and energy. The student knows that force, motion, and energy are related and are part of everyday life. The student is expected to:			
Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
1.6(A) 	Use the senses to explore different forms of energy such as light, thermal , and sound	1.6(A) identify and discuss how different forms of energy such as light, heat, and sound are important to everyday life	<p>Revised</p> <ul style="list-style-type: none"> Added: using the senses to explore energy Replaced: heat with thermal Removed: application of different forms of energy to everyday life <p>Impact</p> <ul style="list-style-type: none"> The term heat regarding energy has been removed from all student expectations, the standard language K-5 is now thermal energy
1.6(B) 	predict and describe how a magnet can be used to push or pull an object	1.6(B) predict and describe how a magnet can be used to push or pull an object	No change in content
1.6(C) 	Demonstrate and record the ways objects can move such as in a straight line, zig zag, up and down, back and forth, round and round, and fast and slow	1.6(D) demonstrate and record the ways that objects can move such as in a straight line, zig zag, up and down, back and forth, round and round, and fast and slow	<p>2010 Standard Deleted</p> <ul style="list-style-type: none"> Content is addressed in grade 3 <p>Recoded</p> <ul style="list-style-type: none"> Recoded 1.6(D) to 1.6(C) <p>No change in content</p>


1.7 Earth and space. The student knows that the natural world includes rocks, soil, and water that can be observed in cycles, patterns, and systems. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
1.7(A)	observe, compare, describe, and sort components of soil by size, texture, and color	1.7(A) observe, compare, describe, and sort components of soil by size, texture, and color	No change in content
1.7(B)	identify and describe a variety of natural sources of water, including streams, lakes, and oceans	1.7(B) identify and describe a variety of natural sources of water, including streams, lakes, and oceans	No change in content
1.7(C) 	identify how rocks, soil, and water are used to make products	1.7(C) gather evidence of how rocks, soil, and water help to make useful products	Revised <ul style="list-style-type: none"> Clarified standard for age appropriateness

1.8 Earth and space. The student knows that the natural world includes the air around us and objects in the sky. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
1.8(A)	record weather information, including relative temperature, such as hot or cold, clear or cloudy, calm or windy, and rainy or icy	1.8(A) record weather information, including relative temperature, such as hot or cold, clear or cloudy, calm or windy, and rainy or icy	No change in content
1.8(B) 	observe and record changes in the appearance of objects in the sky such as the Moon, and stars, including the Sun	1.8(B) observe and record changes in the appearance of objects in the sky such as clouds , the Moon, and stars, including the Sun	Revised <ul style="list-style-type: none"> Removed: clouds
1.8(C)	identify characteristics of the seasons of the year and day and night	1.8(C) identify characteristics of the seasons of the year and day and night	No change in content
1.8(D)	demonstrate that air is all around us and observe that wind is moving air	1.8(D) demonstrate that air is all around us and observe that wind is moving air	No change in content

1.9 Organisms and environments. The student knows that the living environment is composed of relationships between organisms and the life cycles that occur. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
1.9(A) 	sort and classify living and nonliving things based upon whether they have or have had basic needs and produce offspring	1.9(A) sort and classify living and nonliving things based upon whether or not they have basic needs and produce offspring	Revised <ul style="list-style-type: none"> • Clarified standard • Added: have had
1.9(B)	analyze and record examples of interdependence found in various situations such as terrariums and aquariums or pet and caregiver	1.9(B) analyze and record examples of interdependence found in various situations such as terrariums and aquariums or pet and caregiver	No change in content
1.9(C)	gather evidence of interdependence among living organisms such as energy transfer through food chains or animals using plants for shelter	1.9(C) gather evidence of interdependence among living organisms such as energy transfer through food chains and animals using plants for shelter	No change in content



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1.10 Organisms and environments. The student knows that organisms resemble their parents and have structures and processes that help them survive within their environments. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
1.10(A)	investigate how the external characteristics of an animal are related to where it lives, how it moves, and what it eats	1.10(A) investigate how the external characteristics of an animal are related to where it lives, how it moves, and what it eats	No change in content
1.10(B)	identify and compare the parts of plants	1.10(B) identify and compare the parts of plants	No change in content
1.10(C)	compare ways that young animals resemble their parents	1.10(C) compare ways that young animals resemble their parents	No change in content
1.10(D)	observe and record life cycles of animals such as a chicken, frog, or fish	1.10(D) observe and record life cycles of animals such as a chicken, frog, or fish	No change in content



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2.1 Scientific investigation and reasoning. The student conducts classroom and outdoor investigations following home and school safety procedures. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
2.1(A) 	identify, describe , and demonstrate safe practices as outlined in the TEA-approved safety standards during classroom and outdoor investigations, including wearing safety goggles, washing hands, and using materials appropriately	2.1(A) identify and demonstrate safe practices as described in the <i>Texas Safety Standards</i> during classroom and outdoor investigations, including wearing safety goggles, washing hands, and using materials appropriately	Revised <ul style="list-style-type: none"> Clarified safety standards
		2.1(B) describe the importance of safe practices	2010 Standard Deleted <ul style="list-style-type: none"> Safe practices addressed in 2.1(A)
2.1(B) 	identify and demonstrate how to use, conserve, and dispose of natural resources and materials such as conserving water and reuse or recycling of paper, plastic, and metal	2.1(C) identify and demonstrate how to use, conserve, and dispose of natural resources and materials such as conserving water and reuse or recycling of paper, plastic, and metal	Standard Recoded <ul style="list-style-type: none"> Recoded 2.1(C) to 2.1(B)



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2.2 Scientific investigation and reasoning. The student develops abilities necessary to do scientific inquiry in classroom and outdoor investigations. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
2.2(A)	ask questions about organisms, objects, and events during observations and investigations	2.2(A) ask questions about organisms, objects, and events during observations and investigations	No change in content
2.2(B) 	plan and conduct descriptive investigations	2.2(B) plan and conduct descriptive investigations such as how organisms grow	Revised <ul style="list-style-type: none"> Removed: example Clarified to be open ended
2.2(C) 	collect data from observations using scientific tools	2.2(C) collect data from observations using simple equipment such as hand lenses, primary balances, thermometers, and non-standard measurement tools	Revised <ul style="list-style-type: none"> Removed: hand lenses, primary balances, thermometers (included in 2.4(A)) Removed: non-standard measurement (tools) Clarified to be open ended
2.2(D)	record and organize data using pictures, numbers, and words	2.2(D) record and organize data using pictures, numbers, and words	No change in content
2.2(E)	communicate observations and justify explanations using student-generated data from simple descriptive investigations	2.2(E) communicate observations and justify explanations using student-generated data from simple descriptive investigations	No change in content
2.2(F)	compare results of investigations with what students and scientists know about the world	2.2(F) compare results of investigations with what students and scientists know about the world	No change in content



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2.3 Scientific investigation and reasoning. The student knows that information and critical thinking, scientific problem solving, and the contributions of scientists are used in making decisions. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
2.3(A) 	identify and explain a problem and propose a task and solution for the problem	2.3(A) identify and explain a problem in his/her own words and propose a task and solution for the problem such as lack of water in a habitat	Revised <ul style="list-style-type: none"> Removed: example Clarified to be open ended Impact <ul style="list-style-type: none"> This standard is broader in scope and focuses on the process of problem/solution and can be applied across disciplines of science
2.3(B)	make predictions based on observable patterns	2.3(B) make predictions based on observable patterns	No change in content
2.3(C)	identify what a scientist is and explore what different scientists do	2.3(C) identify what a scientist is and explore what different scientists do	No change in content

2.4 Scientific investigation and reasoning. The student uses age-appropriate tools and models to investigate the natural world. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
2.4(A) 	collect, record, and compare information using tools, including computers, hand lenses, rulers, primary balances, plastic beakers, magnets, collecting nets, notebooks, and safety goggles; timing devices; weather instruments such as thermometers, wind vanes, and rain gauges; and materials to support observations of habitats of organisms such as terrariums and aquariums	2.4(A) collect, record, and compare information using tools, including computers, hand lenses, rulers, primary balances, plastic beakers, magnets, collecting nets, notebooks, and safety goggles; timing devices, including clocks and stopwatches; weather instruments such as thermometers, wind vanes, and rain gauges; and materials to support observations of habitats of organisms such as terrariums and aquariums	Revised <ul style="list-style-type: none"> Removed: specificity of timing devices (clocks and stopwatches)
2.4(B) 	measure and compare organisms and objects	2.4(B) measure and compare organisms and objects using non-standard units that approximate metric units	Revised <ul style="list-style-type: none"> Removed: non-standards of measurement and metric units



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2.5 Matter and energy. The student knows that matter has physical properties and those properties determine how it is described, classified, changed, and used. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
2.5(A) 	classify matter by physical properties, including relative temperature, texture, flexibility, and whether material is a solid or liquid	2.5(A) classify matter by physical properties, including <i>shape</i> , <i>relative mass</i> , relative temperature, texture, flexibility, and whether material is a solid or liquid	Revised <ul style="list-style-type: none"> Removed: shape and relative mass Impact <ul style="list-style-type: none"> Relative mass is removed from grades K-5, relative density is introduced in grade 5
2.5(B)	compare changes in materials caused by heating and cooling	2.5(B) compare changes in materials caused by heating and cooling	No change in content
2.5(C)	demonstrate that things can be done to materials such as cutting, folding, sanding, and melting to change their physical properties	2.5(C) demonstrate that things can be done to materials to change their physical properties such as cutting, folding, sanding, and melting	No change in content (SE rewritten for clarity)
2.5(D)	combine materials that when put together can do things that they cannot do by themselves such as building a tower or a bridge and justify the selection of those materials based on their physical properties	2.5(D) combine materials that when put together can do things that they cannot do by themselves such as building a tower or a bridge and justify the selection of those materials based on their physical properties	No change in content



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2.6 Force, motion, and energy. The student knows that forces cause change and energy exists in many forms. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
2.6(A) 	investigate the effects on objects by increasing or decreasing amounts of light, heat, and sound energy such as how the color of an object appears different in dimmer light or how heat melts butter	2.6(A) investigate the effects on an object by increasing or decreasing amounts of light, heat, and sound energy such as how the color of an object appears different in dimmer light or how heat melts butter	Revised <ul style="list-style-type: none"> Changed an object to objects No change in content
2.6(B)	observe and identify how magnets are used in everyday life	2.6(B) observe and identify how magnets are used in everyday life	No change in content
2.6(C)	trace and compare patterns of movement of objects such as sliding, rolling, and spinning over time	2.6(C) trace the changes in the position of an object over time such as a cup rolling on the floor and a car rolling down a ramp	Revised <ul style="list-style-type: none"> Removed: changes in position location and examples, content addressed in grade 3 Combined 2010 TEKS 2.6(C) and 2.6(D)
 		2.6(D) compare patterns of movement of objects such as sliding, rolling, and spinning	Revised and Recorded <ul style="list-style-type: none"> Combined with 2010 TEKS 2.6(C) Recorded 2.6(D) to 2.6(C)


2.7 Earth and space. The student knows that the natural world includes earth materials. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
2.7(A) 	observe, describe, and compare rocks by size, texture, and color	2.7(A) observe and describe rocks by size, texture, and color	Revised <ul style="list-style-type: none"> Added: compare (to the study of rocks)
2.7(B)	identify and compare the properties of natural sources of freshwater and saltwater	2.7(B) identify and compare the properties of natural sources of freshwater and saltwater	No change in content
2.7(C)	distinguish between natural and manmade resources	2.7(C) distinguish between natural and manmade resources	No change in content



2.8 Earth and space. The student knows that there are recognizable patterns in the natural world and among objects in the sky. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
2.8(A)	measure, record, and graph weather information, including temperature, wind conditions, precipitation, and cloud coverage, in order to identify patterns in the data	2.8(A) measure, record, and graph weather information, including temperature, wind conditions, precipitation, and cloud coverage, in order to identify patterns in the data	No change in content
2.8(B)	identify the importance of weather and seasonal information to make choices in clothing, activities, and transportation	2.8(B) identify the importance of weather and seasonal information to make choices in clothing, activities, and transportation	No change in content
		2.8(C) explore the processes in the water cycle, including evaporation, condensation, and precipitation, as connected to weather conditions	2010 Standard Deleted <ul style="list-style-type: none"> Removed: water cycle processes (evaporation and condensation) Impact <ul style="list-style-type: none"> Gases are not introduced until Grade 3 Water cycle will be formally introduced in 4.8(B)
2.8(C) 	observe, describe, and record patterns of objects in the sky, including the appearance of the Moon	2.8(D) observe, describe, and record patterns of objects in the sky, including the appearance of the Moon	Standard Recoded <ul style="list-style-type: none"> Recoded 2.8(C) to 2.8(D) No change in content


2.9 Organisms and environments. The student knows that living organisms have basic needs that must be met for them to survive within their environment. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
2.9(A)	identify the basic needs of plants and animals	2.9(A) identify the basic needs of plants and animals	No change in content
2.9(B)	identify factors in the environment, including temperature and precipitation, that affect growth and behavior such as migration, hibernation, and dormancy of living things	2.9(B) identify factors in the environment, including temperature and precipitation, that affect growth and behavior such as migration, hibernation, and dormancy of living things	No change in content
2.9(C) 	compare the ways living organisms depend on each other and on their environments such as through food chains	2.9(C) compare and give examples of the ways living organisms depend on each other and on their environments such as food chains within a garden, park, beach, lake, and wooded area	Revised <ul style="list-style-type: none"> Standard clarified Removed: specific ecosystems

2.10 Organisms and environments. The student knows that organisms resemble their parents and have structures and processes that help them survive within their environments. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
2.10(A) 	observe, record, and compare how the physical characteristics and behaviors of animals help them meet their basic needs	2.10(A) observe, record, and compare how the physical characteristics and behaviors of animals help them meet their basic needs <i>such as fins help fish move and balance in the water</i>	Revised <ul style="list-style-type: none"> Standard clarified Removed: example of fins
2.10(B)	observe, record, and compare how the physical characteristics of plants help them meet their basic needs such as stems carry water throughout the plant	2.10(B) observe, record, and compare how the physical characteristics of plants help them meet their basic needs such as stems carry water throughout the plant	No change in content
2.10(C) 	investigate and record some of the unique stages that insects such as grasshoppers and butterflies undergo during their life cycle	2.10(C) investigate and record some of the unique stages that insects undergo during their life cycle	Revised <ul style="list-style-type: none"> Added: grasshoppers and butterflies as examples

3.1 Scientific investigation and reasoning. The student conducts classroom and outdoor investigations following school and home safety procedures and environmentally appropriate practices. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
3.1(A) 	demonstrate safe practices as described in the TEA-approved safety standards during classroom and outdoor investigations using safety equipment as appropriate, including safety goggles and gloves	3.1(A) demonstrate safe practices as described in the <i>Texas Safety Standards</i> during classroom and outdoor investigations, including observing a schoolyard habitat	Revised <ul style="list-style-type: none"> • Clarified safety standards • Added: safety equipment (safety goggles and gloves)
3.1(B)	make informed choices in the use and conservation of natural resources by recycling or reusing materials such as paper, aluminum cans, and plastics	3.1(B) make informed choices in the use and conservation of natural resources by recycling or reusing materials such as paper, aluminum cans, and plastics	No change in content



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3.2 Scientific investigation and reasoning. The student uses scientific practices during laboratory and outdoor investigations. The student is expected to:			
Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
3.2(A)	plan and implement descriptive investigations, including asking and answering questions, making inferences, and selecting and using equipment or technology needed, to solve a specific problem in the natural world	3.2(A) plan and implement descriptive investigations, including asking and answering questions, making inferences, and selecting and using equipment or technology needed, to solve a specific problem in the natural world	No change in content
3.2(B) 	collect and record data by observing and measuring using the metric system and recognize differences between observed and measured data	3.2(B) collect data by observing and measuring using the metric system and recognize differences between observed and measured data	Revised • Added: record
3.2(C)	construct maps, graphic organizers, simple tables, charts, and bar graphs using tools and current technology to organize, examine, and evaluate measured data	3.2(C) construct maps, graphic organizers, simple tables, charts, and bar graphs using tools and current technology to organize, examine, and evaluate measured data	No change in content
3.2(D)	analyze and interpret patterns in data to construct reasonable explanations based on evidence from investigations	3.2(D) analyze and interpret patterns in data to construct reasonable explanations based on evidence from investigations	No change in content
3.2(E)	demonstrate that repeated investigations may increase the reliability of results	3.2(E) demonstrate that repeated investigations may increase the reliability of results	No change in content
3.2(F)	communicate valid conclusions supported by data in writing, by drawing pictures, and through verbal discussion	3.2(F) communicate valid conclusions supported by data in writing, by drawing pictures, and through verbal discussion	No change in content



3.3 Scientific investigation and reasoning. The student knows that information, critical thinking, scientific problem solving, and the contributions of scientists are used in making decisions. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
3.3(A) 	analyze, evaluate, and critique scientific explanations by using evidence, logical reasoning, and experimental and observational testing	3.3(A) In all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing; including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	Revised <ul style="list-style-type: none"> Clarified standard
		3.3(B) draw inferences and evaluate accuracy of product claims found in advertisements and labels such as for toys and food	2010 Standard Deleted <ul style="list-style-type: none"> Product claims and advertisements removed from grades 3-12
3.3(B) 	represent the natural world using models such as volcanoes or Sun, Earth, and Moon system and identify their limitations, including size, properties, and materials	3.3(C) represent the natural world using models such as volcanoes or Sun, Earth, and Moon system and identify their limitations, including size, properties, and materials	Standard Recoded <ul style="list-style-type: none"> Recoded 3.3(C) to 3.3(B) No change in content
3.3(C) 	connect grade-level appropriate science concepts with the history of science, science careers, and contributions of scientists	3.3(D) connect grade-level appropriate science concepts with the history of science, science careers, and contributions of scientists	Standard Recoded <ul style="list-style-type: none"> Recoded 3.3(D) to 3.3(C) No change in content

3.4 Scientific investigation and reasoning. The student knows how to use a variety of tools and practices to conduct science inquiry. The student is expected to

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
<p>3.4(A)</p> 	<p>collect, record, and analyze information using tools, including microscopes, cameras, computers, hand lenses, metric rulers, Celsius thermometers, wind vanes, rain gauges, pan balances, graduated cylinders, beakers, spring scales, hot plates, meter sticks, magnets, collecting nets, notebooks, and Sun, Earth, and Moon system models; timing devices, and materials to support observation of habitats of organisms such as terrariums and aquariums</p>	<p>3.4(A) collect, record, and analyze information using tools, including microscopes, cameras, computers, hand lenses, metric rulers, Celsius thermometers, wind vanes, rain gauges, pan balances, graduated cylinders, beakers, spring scales, hot plates, meter sticks, compasses, magnets, collecting nets, notebooks, sound recorders, and Sun, Earth, and Moon system models; timing devices, including clocks and stopwatches; and materials to support observation of habitats of organisms such as terrariums and aquariums</p>	<p>Revised</p> <ul style="list-style-type: none"> Removed: compasses, sound recorders, and specificity of timing devices (clocks, stopwatches)
		<p>3.4(B) use safety equipment as appropriate, including safety goggles and gloves</p>	<p>2010 Standard Deleted</p> <ul style="list-style-type: none"> Content included in 3.1(A)

3.5 Matter and energy. The student knows that matter has measurable physical properties and those properties determine how matter is classified, changed, and used. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
3.5(A)	measure, test, and record physical properties of matter, including temperature, mass, magnetism, and the ability to sink or float	3.5(A) measure, test, and record physical properties of matter, including temperature, mass, magnetism, and the ability to sink or float	No change in content
3.5(B)	describe and classify samples of matter as solids, liquids, and gases and demonstrate that solids have a definite shape and that liquids and gases take the shape of their container	3.5(B) describe and classify samples of matter as solids, liquids, and gases and demonstrate that solids have a definite shape and that liquids and gases take the shape of their container	No change in content
3.5(C)* 	predict, observe, and record changes in the state of matter caused by heating or cooling such as ice becoming liquid water or condensation forming on the outside of a glass of ice water; or liquid water being heated to the point of becoming a vapor	3.5(C) predict, observe, and record changes in the state of matter caused by heating or cooling	Revised <ul style="list-style-type: none"> Added: clarifying language - ice becoming liquid water or condensation forming on the outside of a glass of ice water; or liquid water being heated to the point of becoming a vapor Impact <ul style="list-style-type: none"> First time condensation is formally introduced
3.5(D) 	explore and recognize that a mixture is created when two materials are combined such as gravel and sand or metal and plastic paper clips	3.5(D) explore and recognize that a mixture is created when two materials are combined such as gravel and sand and metal and plastic paper clips	Revised <ul style="list-style-type: none"> Removed: and Added: or No change in content



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3.6 Force, motion, and energy. The student knows that forces cause change and that energy exists in many forms. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
3.6(A)	explore different forms of energy, including mechanical, light, sound, and heat/thermal in everyday life	3.6(A) explore different forms of energy, including mechanical, light, sound, and heat/thermal in everyday life	No change in content
3.6(B)* 	demonstrate and observe how position and motion can be changed by pushing and pulling objects such as swings, balls, and wagons	3.6(B) demonstrate and observe how position and motion can be changed by pushing and pulling objects to show work being done such as swings, balls, pulleys, and wagons	Revised <ul style="list-style-type: none"> Removed: work and pulleys Impact <ul style="list-style-type: none"> Pulleys have been removed from K-8
3.6(C)	observe forces such as magnetism and gravity acting on objects	3.6(C) observe forces such as magnetism and gravity acting on objects	No change in content

3.7 Earth and space. The student knows that Earth consists of natural resources and its surface is constantly changing. The student is expected to:

TEKS	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
3.7(A)	explore and record how soils are formed by weathering of rock and the decomposition of plant and animal remains	3.7(A) explore and record how soils are formed by weathering of rock and the decomposition of plant and animal remains	No change in content
3.7(B)*	investigate rapid changes in Earth's surface such as volcanic eruptions, earthquakes, and landslides	3.7(B) investigate rapid changes in Earth's surface such as volcanic eruptions, earthquakes, and landslides	No change in content
		3.7(C) identify and compare different landforms, including mountains, hills, valleys, and plains	2010 Standard Deleted <ul style="list-style-type: none"> Landforms removed from grade 3
3.7(C) 	explore the characteristics of natural resources that make them useful in products and materials such as clothing and furniture and how resources may be conserved	3.7(D) explore the characteristics of natural resources that make them useful in products and materials such as clothing and furniture and how resources may be conserved	Recoded Standard <ul style="list-style-type: none"> Recoded 3.7(D) to 3.7(C) No change in content

3.8 Earth and space. The student knows there are recognizable patterns in the natural world and among objects in the sky. The student is expected to:			
Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
3.8(A)	observe, measure, record, and compare day-to-day weather changes in different locations at the same time that include air temperature, wind direction, and precipitation	3.8(A) observe, measure, record, and compare day-to-day weather changes in different locations at the same time that include air temperature, wind direction, and precipitation	No change in content
3.8(B) 	describe and illustrate the Sun as a star composed of gases that provides light and thermal energy	3.8(B) describe and illustrate the Sun as a star composed of gases that provides light and heat energy <i>for the water cycle</i>	Revised <ul style="list-style-type: none"> Replaced: heat with thermal Removed: water cycle from grade K-3
3.8(C)	construct models that demonstrate the relationship of the Sun, Earth, and Moon including orbits and positions	3.8(C) construct models that demonstrate the relationship of the Sun, Earth, and Moon including orbits and positions	No change in content
3.8(D)*	identify the planets in Earth's solar system and their position in relation to the Sun	3.8(D) identify the planets in Earth's solar system and their position in relation to the Sun	No change in content

3.9 Organisms and environments. The student knows and can describe patterns, cycles, systems, and relationships within the environments. The student is expected to:



Revised: removed characteristics of organisms that help them survive

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
3.9(A)* 	observe and describe the physical characteristics of environments and how they support populations and communities of plants and animals within an ecosystem	3.9(A) observe and describe the physical characteristics of environments and how they support populations and communities within an ecosystem	Revised • Added: plants and animals to clarify the standard
3.9(B)	identify and describe the flow of energy in a food chain and predict how changes in a food chain affect the ecosystem such as removal of frogs from a pond or bees from a field	3.9(B) identify and describe the flow of energy in a food chain and predict how changes in a food chain affect the ecosystem such as removal of frogs from a pond or bees from a field	No change in content
3.9(C)	describe environmental changes such as floods and droughts where some organisms thrive and others perish or move to new locations	3.9(C) describe environmental changes such as floods and droughts where some organisms thrive and others perish or move to new locations	No change in content



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3.10 Organisms and environments. The student knows that organisms undergo similar life processes and have structures that help them survive within their environments. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
3.10(A)	explore how structures and functions of plants and animals allow them to survive in a particular environment	3.10(A) explore how structures and functions of plants and animals allow them to survive in a particular environment	No change in content
		3.10(B) explore that some characteristics of organisms are inherited such as the number of limbs on an animal or flower color and recognize that some behaviors are learned in response to living in a certain environment such as animals using tools to get food	2010 Standard Deleted <ul style="list-style-type: none"> Inherited characteristic introduced in grade 4
3.10(B)*  	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	3.10(C) 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 bugs	Revised <ul style="list-style-type: none"> Changed bugs to beetles Standard Recoded <ul style="list-style-type: none"> Recoded 3.10(C) to 3.10(B)



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4.1 Scientific investigation and reasoning. The student conducts classroom and outdoor investigations, following home and school safety procedures and environmentally appropriate and ethical practices. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
4.1(A) 	demonstrate safe practices and the use of safety equipment as described in the TEA-approved safety standards during classroom and outdoor investigations using safety equipment, including safety goggles and gloves, as appropriate	4.1(A) demonstrate safe practices and the use of safety equipment as described in the <i>Texas Safety Standards</i> during classroom and outdoor investigations	Revised <ul style="list-style-type: none"> • Clarified safety standards • Added: safety equipment (safety goggles and gloves)
4.1(B)	make informed choices in the use and conservation of natural resources and reusing and recycling of materials such as paper, aluminum, glass, cans, and plastic	4.1(B) make informed choices in the use and conservation of natural resources and reusing and recycling of materials such as paper, aluminum, glass, cans, and plastic	No change in content

4.2 Scientific investigation and reasoning. The student uses scientific practices during laboratory and outdoor investigations. The student is expected to:			
Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
4.2(A)	plan and implement descriptive investigations, including asking well-defined questions, making inferences, and selecting and using appropriate equipment or technology to answer his/her questions	4.2(A) plan and implement descriptive investigations, including asking well-defined questions, making inferences, and selecting and using appropriate equipment or technology to answer his/her questions	No change in content
4.2(B)	collect and record data by observing and measuring, using the metric system, and using descriptive words and numerals such as labeled drawings, writing, and concept maps	4.2(B) collect and record data by observing and measuring, using the metric system, and using descriptive words and numerals such as labeled drawings, writing, and concept maps	No change in content
4.2(C)	construct simple tables, charts, bar graphs, and maps using tools and current technology to organize, examine, and evaluate data	4.2(C) construct simple tables, charts, bar graphs, and maps using tools and current technology to organize, examine, and evaluate data	No change in content
4.2(D)	analyze data and interpret patterns to construct reasonable explanations from data that can be observed and measured	4.2(D) analyze data and interpret patterns to construct reasonable explanations from data that can be observed and measured	No change in content
4.2(E)	perform repeated investigations to increase the reliability of results	4.2(E) perform repeated investigations to increase the reliability of results	No change in content
4.2(F)	communicate valid, oral, and written results supported by data	4.2(F) communicate valid, oral, and written results supported by data	No change in content



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4.3 Scientific investigation and reasoning. The student uses critical thinking and scientific problem solving to make informed decisions. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
4.3(A) 	analyze, evaluate, and critique scientific explanations by using evidence, logical reasoning, and experimental and observational testing	4.3(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	Revised <ul style="list-style-type: none"> Clarified standard
		4.3(B) draw inferences and evaluate accuracy of services and product claims found in advertisements and labels such as for toys, food, and sunscreen	2010 Standard Deleted <ul style="list-style-type: none"> Product claims and advertisements removed from grades 3-12
4.3(B)  	represent the natural world using models such as the water cycle and stream tables and identify their limitations, including accuracy and size	4.3(C) represent the natural world using models such as rivers, stream tables, or fossils and identify their limitations, including accuracy and size	Revised <ul style="list-style-type: none"> Added: model of water cycle as an example. Water cycle introduced in grade 4 student expectation 4.8(B) Removed: rivers, fossils Standard Recoded <ul style="list-style-type: none"> Recoded 4.3(C) to 4.3(B)
4.3(C) 	connect grade-level appropriate science concepts with the history of science, science careers, and contributions of scientists	4.3(D) connect grade-level appropriate science concepts with the history of science, science careers, and contributions of scientists	Standard Recoded <ul style="list-style-type: none"> Recoded 4.3(D) to 4.3(C)



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4.4 Scientific investigation and reasoning. The student knows how to use a variety of tools, materials, equipment, and models to conduct science inquiry. The student is expected to

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
4.4(A) 	collect, record, and analyze information using tools, including calculators, microscopes, cameras, computers, hand lenses, metric rulers, Celsius thermometers, mirrors, spring scales, balances, graduated cylinders, beakers, hot plates, meter sticks, magnets, collecting nets, and notebooks; timing devices, and materials to support observation of habitats of organisms such as terrariums and aquariums	4.4(A) collect, record, and analyze information using tools, including calculators, microscopes, cameras, computers, hand lenses, metric rulers, Celsius thermometers, mirrors, spring scales, pan balances, triple beam balances, graduated cylinders, beakers, hot plates, meter sticks, compasses, magnets, collecting nets, and notebooks; timing devices, including clocks and stopwatches; and materials to support observation of habitats of organisms such as terrariums and aquariums	Revised <ul style="list-style-type: none"> Removed: specificity of balance (pan or triple beam) compasses, sound recorders, and specificity of timing devices (clocks, stopwatches)
4.4(B) 		4.4(B) use safety equipment as appropriate, including safety goggles and gloves	2010 Standard Deleted <ul style="list-style-type: none"> Content included in 4.1(A)

4.5 Matter and energy. The student knows that matter has measurable physical properties and those properties determine how matter is classified, changed, and used. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
4.5(A) 	measure, compare, and contrast physical properties of matter, including mass, volume, states (solid, liquid, gas), temperature, magnetism, and the ability to sink or float	4.5(A) measure, compare, and contrast physical properties of matter, including size, mass, volume, states (solid, liquid, gas), temperature, magnetism, and the ability to sink or float	Revised <ul style="list-style-type: none"> Removed: size
		4.5(B) predict the changes caused by heating and cooling such as ice becoming liquid water and condensation forming on the outside of a glass of ice water	2010 Standard Deleted <ul style="list-style-type: none"> Content included in grade 3 student expectation 3.5(C)
4.5(B) 	compare and contrast a variety of mixtures, including solutions	4.5(C) compare and contrast a variety of mixtures and solutions such as rocks in sand, sand in water, or sugar in water	Revised <ul style="list-style-type: none"> Removed: examples Clarified solutions are a type of mixture Standard Recoded <ul style="list-style-type: none"> Recoded 4.5(C) to 4.5(B)



4.6 Force, motion, and energy. The student knows that energy exists in many forms and can be observed in cycles, patterns, and systems. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
4.6(A) 	differentiate among forms of energy, including mechanical, sound, electrical, light, and thermal	4.6(A) differentiate among forms of energy, including mechanical, sound, electrical, light, and heat/thermal	Revised • Removed: heat
4.6(B) 	differentiate between conductors and insulators of thermal and electrical energy	4.6(B) differentiate between conductors and insulators	Revised • Clarified standard: type of conductors and insulators (of thermal and electrical energy)
4.6(C) 	demonstrate that electricity travels in a closed path, creating an electrical circuit	4.6(C) demonstrate that electricity travels in a closed path, creating an electrical circuit, and explore an electromagnetic field	Revised • Removed: electromagnetic fields (addressed in physics)
4.6(D) 	design a descriptive investigation to explore the effect of force on an object such as a push or a pull, gravity, friction, or magnetism	4.6(D) design an experiment to test the effect of force on an object such as a push or a pull, gravity, friction, or magnetism	Revised • Clarified standard: type of investigation (descriptive) • Added: explore


4.7 Earth and space. The students know that Earth consists of useful resources and its surface is constantly changing. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
4.7(A)*	examine properties of soils, including color and texture, capacity to retain water, and ability to support the growth of plants	4.7(A) examine properties of soils, including color and texture, capacity to retain water, and ability to support the growth of plants	No change in content
4.7(B)	observe and identify slow changes to Earth's surface caused by weathering, erosion, and deposition from water, wind, and ice	4.7(B) observe and identify slow changes to Earth's surface caused by weathering, erosion, and deposition from water, wind, and ice	No change in content
4.7(C)*	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	4.7(C) 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	No change in content

4.8 Earth and space. The student knows that there are recognizable patterns in the natural world and among the Sun, Earth, and Moon system. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
4.8(A)* 	measure, record, and predict changes in weather predictions	4.8(A) measure and record changes in weather and make predictions using weather maps, weather symbols, and a map key	Revised <ul style="list-style-type: none"> • Clarified standard • Removed: specificity of weather maps
4.8(B)*	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	4.8(B) 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	No change in content
4.8(C)* 	collect and analyze data to identify sequences and predict patterns of change in shadows, seasons, and the observable appearance of the Moon over time	4.8(C) collect and analyze data to identify sequences and predict patterns of change in shadows, tides, seasons, and the observable appearance of the Moon over time	Revised <ul style="list-style-type: none"> • Removed: tides (addressed in grade 8)

4.9 Organisms and environments. The student knows and understands that living organisms within an ecosystem interact with one another and with their environment. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
4.9(A)	investigate that most producers need sunlight, water, and carbon dioxide to make their own food, while consumers are dependent on other organisms for food	4.9(A) investigate that most producers need sunlight, water, and carbon dioxide to make their own food, while consumers are dependent on other organisms for food	No change in content
4.9(B) 	describe the flow of energy through food webs, beginning with the Sun, and predict how changes in the ecosystem affect the food web	4.9(B) describe the flow of energy through food webs, beginning with the Sun, and predict how changes in the ecosystem affect the food web such as a fire in a forest	Revised <ul style="list-style-type: none"> • Removed: example of changes in the ecosystem


4.10 Organisms and environments. The student knows that organisms undergo similar life processes and have structures and behaviors that help them survive within their environment. The student is expected to:





Revised – Added: behaviors (that help organisms survive)

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
		4.10(A) explore how adaptations enable organisms to survive in their environment such as comparing birds' beaks and leaves on plants	2010 Standard Deleted • Content included in grade 3
4.10(A) 	explore and describe examples of traits that are inherited from parents to offspring , such as eye color and shapes of leaves and behaviors that are learned such as reading a book and a wolf pack teaching their pups to hunt effectively	4.10(B) demonstrate that some likenesses between parents and offspring are inherited, passed from generation to generation such as eye color in humans or shapes of leaves in plants. Other likenesses are learned such as table manners or reading a book and seals balancing balls on their noses	Revised • Clarified standard Recorded • Recoded 4.10(B) to 4.10(A)
4.10(B) 	explore, illustrate, and compare life cycles in living organisms such as beetles, crickets , radishes, or lima beans	4.10(C) explore, illustrate, and compare life cycles in living organisms such as butterflies, beetles, radishes, or lima beans	Revised • Added: crickets as examples for life cycles • Removed: butterflies as examples for life cycles (addressed in grade 2) Recorded • Recoded 4.10(C) to 4.10(B)





5.1 Scientific investigation and reasoning. The student conducts classroom and outdoor investigations following home and school safety procedures and environmentally appropriate and ethical practices. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
5.1(A)* 	demonstrate safe practices and the use of safety equipment as described in the TEA-approved safety standards during classroom and outdoor investigations using safety equipment, including safety goggles and gloves, as appropriate	5.1(A) demonstrate safe practices and the use of safety equipment as described in the <i>Texas Safety Standards</i> during classroom and outdoor investigations	Revised <ul style="list-style-type: none"> Clarified safety standards Added: safety equipment: safety goggles and gloves, as appropriate (content moved from 5.4(B))
5.1(B)*	make informed choices in the conservation, disposal, and recycling of materials	5.1(B) make informed choices in the conservation, disposal, and recycling of materials	No change in content



5.2 Scientific investigation and reasoning. The student uses scientific practices during laboratory and scientific investigations. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
5.2(A)*	describe, plan, and implement simple experimental investigations testing one variable	5.2(A) describe, plan, and implement simple experimental investigations testing one variable	No change in content
5.2(B)*	ask well-defined questions, formulate testable hypotheses, and select and use appropriate equipment and technology	5.2(B) ask well-defined questions, formulate testable hypotheses, and select and use appropriate equipment and technology	No change in content
5.2(C)* 	collect and record information using detailed observations and accurate measuring	5.2(C) collect information by detailed observations and accurate measuring	Revised <ul style="list-style-type: none"> Added: recording observations
5.2(D)* 	analyze and interpret information to construct reasonable explanations from direct (observable) evidence	5.2(D) analyze and interpret information to construct reasonable explanations from direct (observable) and indirect (inferred) evidence	Revised <ul style="list-style-type: none"> Removed: indirect (inferred) evidence
5.2(E)	demonstrate that repeated investigations may increase the reliability of results	5.2(E) demonstrate that repeated investigations may increase the reliability of results	No change in content
5.2(F)*	communicate valid conclusions in both written and verbal forms	5.2(F) communicate valid conclusions in both written and verbal forms	No change in content
5.2(G)*	construct appropriate simple graphs, tables, maps, and charts using technology, including computers to organize, examine, and evaluate information	5.2(G) construct appropriate simple graphs, tables, maps, and charts using technology, including computers to organize, examine, and evaluate information	No change in content

5.3 Scientific investigation and reasoning. Scientific investigation and reasoning. The student uses critical thinking and scientific problem solving to make informed decisions. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
5.3(A)* 	analyze, evaluate, and critique scientific explanations by using evidence, logical reasoning, and experimental and observational testing	5.3(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	Revised • Clarified standard
		5.3(B) evaluate the accuracy of the information related to promotional materials for products and services such as nutritional labels	2010 Standard Deleted • Product claims and advertisements removed from grades 3-12
5.3(B)* 	draw or develop a model that represents how something that cannot be seen such as the Sun, Earth, and Moon system and formation of sedimentary rock works or looks	5.3(C) draw or develop a model that represents how something works or looks that cannot be seen such as how a soda dispensing machine works	Revised • Added: Sun, Earth, and Moon system and formation of sedimentary rock as examples Standard Recoded • Recoded 5.3(C) to 5.3(B)
5.3(C)* 	connect grade-level appropriate science concepts with the history of science, science careers, and contributions of scientists	5.3(D) connect grade-level appropriate science concepts with the history of science, science careers, and contributions of scientists	Standard Recoded • Recoded 5.3(D) to 5.3(C)

5.4 Scientific investigation and reasoning. Scientific investigation and reasoning. The student knows how to use a variety of tools and practices to conduct science inquiry. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
5.4(A)* 	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	5.4(A) collect, record, and analyze information using tools, including calculators, microscopes, cameras, computers, hand lenses, metric rulers, Celsius thermometers, prisms, mirrors, pan balances, triple beam balances, spring scales, graduated cylinders, beakers, hot plates, meter sticks, magnets, collecting nets, and notebooks; timing devices, including clocks and stopwatches; and materials to support observations of habitats or organisms such as terrariums and aquariums	Revised <ul style="list-style-type: none"> • Added: prisms • Removed: specificity of balances (pan, triple beam) and specificity of timing devices (clocks, stopwatches)
		5.4(B) use safety equipment, including safety goggles and gloves	Combined <ul style="list-style-type: none"> • Content addressed in 5.1(A)



revised standard



recoded standard







deleted standard




gray indicates part of standard deleted *indicates SE has been tested on STAAR

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5.5 Matter and energy. The student knows that matter has measurable physical properties and those properties determine how matter is classified, changed, and used. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
5.5(A)* 	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 point), solubility in water, and the ability to conduct or insulate thermal energy or electric energy	5.5(A) classify matter based on physical properties, including mass, magnetism, physical state (solid, liquid, and gas), relative density (sinking and floating), solubility in water, and the ability to conduct or insulate thermal energy or electric energy	Revised <ul style="list-style-type: none"> Added concept: classifying matter based on “measurable, testable and observable” physical properties Added: using water as a reference point regarding relative density
		5.5(B)* identify the boiling and freezing/melting points of water on the Celsius scale	2010 Standard Deleted <ul style="list-style-type: none"> Boiling, freezing, and melting removed from K-8 TEKS
5.5(B)* 	demonstrate that some mixtures maintain physical properties of their ingredients such as iron filings and sand or sand and water	5.5(C) demonstrate that some mixtures maintain physical properties of their ingredients such as iron filings and sand	Revised <ul style="list-style-type: none"> Added: Sand and water example Standard Recoded <ul style="list-style-type: none"> Recoded 5.5(C) to 5.5(B)
5.5(C)* 	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	5.5(D) 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	Standard Recoded <ul style="list-style-type: none"> Recoded 5.5(D) to 5.5(C)

5.6 Force, motion, and energy. The student knows that energy occurs in many forms and can be observed in cycles, patterns, and systems. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
5.6(A)*	explore the uses of energy, including mechanical, light, thermal, electrical, and sound energy	5.6(A) explore the uses of energy, including mechanical, light, thermal, electrical, and sound energy	No change in content
5.6(B)* 	(B) demonstrate that the flow of electricity in closed circuits can produce light, heat, and sound	5.6(B) demonstrate that the flow of electricity in circuits requires a complete path through which an electric current can pass and can produce light, heat, and sound;	Revised <ul style="list-style-type: none"> Added: closed (circuits) Removed: complete path Impact <ul style="list-style-type: none"> Electricity is introduced in 4.6(C)
5.6(C)* 	demonstrate that light travels in a straight line until it strikes an object and is reflected or travels through one medium to another and is refracted	5.6(C) demonstrate that light travels in a straight line until it strikes an object or travels through one medium to another and demonstrate that light can be reflected such as the use of mirrors or other shiny surfaces and refracted such as the appearance of an object when observed through water	Revised <ul style="list-style-type: none"> Standard clarified
5.6(D)* 	design a simple experimental investigation that tests the effect of force on an object	5.6(D) design an experiment that tests the effect of force on an object	Revised <ul style="list-style-type: none"> Standard is clarified with the addition of “simple experimental investigation”



revised standard



recoded standard





deleted standard

gray indicates part of standard deleted *indicates SE has been tested on STAAR





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5.7 Earth and space. The student knows Earth’s surface is constantly changing and consists of useful resources. The student is expected to:


Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
5.7(A)*	explore the processes that led to the formation of sedimentary rocks and fossil fuels	5.7(A) explore the processes that led to the formation of sedimentary rocks and fossil fuels	No change in content
5.7(B)*	recognize how landforms such as deltas, canyons, and sand dunes are the result of changes to Earth’s surface by wind, water, and ice	5.7(B) recognize how landforms such as deltas, canyons, and sand dunes are the result of changes to Earth’s surface by wind, water, and ice	No change in content Impact • Landforms have been removed from third grade. Fourth grade standard 4.7(B) identifies slow changes to the Earth’s surface
		5.7(C) identify alternative energy resources such as wind, solar, hydroelectric, geothermal, and biofuels	2010 Standard Deleted • Alternative energy will now be introduced in sixth grade
		5.7(D)* identify fossils as evidence of past living organisms and the nature of the environments at the time using models	Standard Recoded • Changed to organisms and environments Knowledge and Skills • Recoded 5.7(D) to 5.9(D) No change in content



5.8 Earth and space. The student knows that there are recognizable patterns in the natural world and among the Sun, Earth, and Moon system. The student is expected to:

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
5.8(A)*	differentiate between weather and climate	5.8(A) differentiate between weather and climate	No change in content
5.8(B)*	explain how the Sun and the ocean interact in the water cycle	5.8(B) explain how the Sun and the ocean interact in the water cycle	No change in content
5.8(C)*	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	5.8(C) 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	No change in content
5.8(D)*	identify and compare the physical characteristics of the Sun, Earth, and Moon	5.8(D) identify and compare the physical characteristics of the Sun, Earth, and Moon	No change in content

5.9 Organisms and environments. The student knows that there are relationships, systems, and cycles within environments. The student is expected to:			
Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
5.9(A)* 	observe the way organisms live and survive in their ecosystem by interacting with the living and non-living components	5.9(A) observe the way organisms live and survive in their ecosystem by interacting with the living and non-living elements	Revised • Clarified standard
5.9(B)* 	describe the flow of energy within a food web, to including the roles of the Sun, producers, consumers, and decomposers	5.9(B) describe [how]the flow of energy derived from the Sun, used by producers to create their own food, is transferred through a food chain and food web to consumers and decomposers	Revised • Removed: food chains are addressed in grades 1-3 Impact • Photosynthesis is addressed in grade 7
5.9(C)*	predict the effects of changes in ecosystems caused by living organisms, including humans, such as the overpopulation of grazers or the building of highways	5.9(C) predict the effects of changes in ecosystems caused by living organisms, including humans, such as the overpopulation of grazers or the building of highways	No change in content
		5.9(D)* identify the significance of the carbon dioxide- oxygen cycle to the survival of plants and animals.	2010 Standard Deleted • Carbon dioxide-oxygen cycle introduced in Biology
5.9(D)* 	identify fossils as evidence of past living organisms and the nature of the environments at the time using models		Standard Recoded • Changed from Earth and Space Knowledge and Skills • Recoded 5.7(D) to 5.9(D) No change in content

5.10 Organisms and environments. The student knows that organisms have structures and behaviors that help them survive within their environments. The student is expected to:

 **Revised - Removed: similar life processes**
Added: behaviors

Streamlined TEKS #	2018 Streamlined TEKS	2010 TEKS	Instructional Impact/Notes
5.10(A)* 	compare the structures and functions in a specific environment of different species that help them live and survive such as hooves on prairie animals or webbed feet in aquatic animals; and	5.10(A) compare the structures and functions of different species that help them live and survive such as hooves on prairie animals or webbed feet in aquatic animals	Revised • Added: specific environments to the comparison of structures and functions of different species
5.10(B)*	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	5.10(B) 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	No content change
		5.10(C)* describe the differences between complete and incomplete metamorphosis of insects	2010 Standard Deleted • Impact: the term metamorphosis has been removed from the K-12 TEKS (implied it will be addressed in standards pertaining to life cycles of living organisms that undergo metamorphosis)