

Vertical Alignment Document

Science

Kindergarten – Grade 2

SCIENCE VERTICAL ALIGNMENT DOCUMENT

KINDERGARTEN	GRADE 1	GRADE 2
<p>§112.10. Implementation of Texas Essential Knowledge and Skills for Science, Elementary, Adopted 2017. The provisions of §§112.11-112.13 of this subchapter shall be implemented by school districts beginning with the 2018-2019 school year. Source: <i>The provisions of this §112.10 adopted to be effective August 27, 2018, TexReg.</i></p>		
<p>§112.11 - §112.13. Science, Kindergarten – Grade 2, Adopted 2017.</p>		
<p>(a) Introduction.</p>		
<p>(1) In Kindergarten, students observe and describe the natural world using their senses. Students do science as inquiry in order to develop and enrich their abilities to understand scientific concepts and processes. Students develop vocabulary through their experiences investigating properties of common objects, earth materials, and organisms.</p> <p>(A) A central theme throughout the study of scientific investigation and reasoning; matter and energy; force, motion, and energy; Earth and space; and organisms and environment is active engagement in asking questions, creating a method to answer those questions, answering those questions, communicating ideas, and exploring with scientific tools. Scientific investigation and reasoning involves practicing safe procedures, asking questions about the natural world, and seeking answers to those questions through simple observations used in descriptive investigations.</p> <p>(B) Matter is described in terms of its physical properties, including relative size, weight, shape, color, and texture. The importance of light, thermal, and sound energy is identified as it relates to the students' everyday life. The</p>	<p>(1) In Grade 1, students observe and describe the natural world using their senses. Students do science as inquiry in order to develop and enrich their abilities to understand the world around them in the context of scientific concepts and processes. Students develop vocabulary through their experiences investigating properties of common objects, earth materials, and organisms.</p> <p>(A) A central theme in first grade science is active engagement in asking questions, creating a method to answer those questions, answering those questions, communicating ideas, and exploring with scientific tools in order to explain scientific concepts and processes like scientific investigation and reasoning; matter and energy; force, motion, and energy; Earth and space; and organisms and environment. Scientific investigation and reasoning involves practicing safe procedures, asking questions about the natural world, and seeking answers to those questions through simple observations used in descriptive investigations.</p> <p>(B) Matter is described in terms of its physical properties, including relative size, weight, shape, color, and texture. The importance of light, thermal, and</p>	<p>(1) In Grade 2, careful observation and investigation are used to learn about the natural world and reveal patterns, changes, and cycles. Students should understand that certain types of questions can be answered by using observation and investigations and that the information gathered in these investigations may change as new observations are made. As students participate in investigation, they develop the skills necessary to do science as well as develop new science concepts.</p> <p>(A) A central theme throughout the study of scientific investigation and reasoning; matter and energy; force, motion, and energy; Earth and space; and organisms and environment is active engagement in asking questions, creating a method to answer those questions, answering those questions, communicating ideas, and exploring with scientific tools. Scientific investigation and reasoning involves practicing safe procedures, asking questions about the natural world, and seeking answers to those questions through simple observations used in descriptive investigations.</p> <p>(B) Within the physical environment, students expand their understanding of the properties of objects such as temperature, shape, and flexibility then</p>

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<p>location and motion of objects are explored.</p> <p>(C) Weather is recorded and discussed on a daily basis so students may begin to recognize patterns in the weather. Other patterns are observed in the appearance of objects in the sky.</p> <p>(D) In life science, students recognize the interdependence of organisms in the natural world. They understand that all organisms have basic needs that can be satisfied through interactions with living and nonliving things. Students will investigate the life cycle of plants and identify likenesses between parents and offspring.</p>	<p>sound energy is identified as it relates to the students' everyday life. The location and motion of objects are explored.</p> <p>(C) Weather is recorded and discussed on a daily basis so students may begin to recognize patterns in the weather. In addition, patterns are observed in the appearance of objects in the sky.</p> <p>(D) In life science, students recognize the interdependence of organisms in the natural world. They understand that all organisms have basic needs that can be satisfied through interactions with living and nonliving things. Students will investigate life cycles of animals and identify likenesses between parents and offspring.</p>	<p>use those properties to compare, classify, and then combine the objects to do something that they could not do before. Students manipulate objects to demonstrate a change in motion and position.</p> <p>(C) Within the natural environment, students will observe the properties of earth materials as well as predictable patterns that occur on Earth and in the sky. The students understand that those patterns are used to make choices in clothing, activities, and transportation.</p> <p>(D) Within the living environment, students explore patterns, systems, and cycles by investigating characteristics of organisms, life cycles, and interactions among all the components within their habitat. Students examine how living organisms depend on each other and on their environment.</p>
<p>(2) Science, as defined by the National Academy of Sciences, is the "use of evidence to construct testable explanations and predictions of natural phenomena, as well as the knowledge generated through this process."</p>		
<p>(3) Recurring themes are pervasive in sciences, mathematics, and technology. These ideas transcend disciplinary boundaries and include patterns, cycles, systems, models, and change and constancy.</p>		
<p>(4) The study of elementary science includes planning and safely implementing classroom and outdoor investigations using scientific processes, including inquiry methods, analyzing information, making informed decisions, and using tools to collect and record information, while addressing the major concepts and vocabulary, in the context of physical, earth, and life sciences. Districts are encouraged to facilitate classroom and outdoor investigations for at least 80% of instructional time.</p>	<p>(2) The study of elementary science includes planning and safely implementing classroom and outdoor investigations using scientific processes, including inquiry methods, analyzing information, making informed decisions, and using tools to collect and record information, while addressing the major concepts and vocabulary, in the context of physical, earth, and life sciences. Districts are</p>	

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		encouraged to facilitate classroom and outdoor investigations for at least 60% of instructional time.
(5) Statements containing the word "including" reference content that must be mastered, while those containing the phrase "such as" are intended as possible illustrative examples.		

Knowledge and Skills Statement (TEKS); **Student Expectation (TEKS)**

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SCIENTIFIC INVESTIGATION AND REASONING					
<i>K.1</i>	<i>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:</i>	<i>1.1</i>	<i>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:</i>	<i>2.1</i>	<i>Scientific investigation and reasoning. The student conducts classroom and outdoor investigations following home and school safety procedures. The student is expected to:</i>
K.1A	<p>Identify, discuss, and demonstrate safe and healthy practices as outlined in Texas Education Agency-approved safety standards during classroom and outdoor investigations, including wearing safety goggles or chemical splash goggles, as appropriate, washing hands, and using materials appropriately.</p> <p>Identify, Discuss, Demonstrate</p> <p>SAFE PRACTICES</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> Wearing safety goggles or chemical splash goggles, as appropriate Washing hands Using materials appropriately Follow classroom and outdoor safety guidelines, as outlined in Texas Education Agency-approved safety standards Handle organisms appropriately <p>Note(s):</p> <ul style="list-style-type: none"> TEA: 	1.1A	<p>Identify, discuss, and demonstrate safe and healthy practices as outlined in Texas Education Agency-approved safety standards during classroom and outdoor investigations, including wearing safety goggles or chemical splash goggles, as appropriate, washing hands, and using materials appropriately.</p> <p>Identify, Discuss, Demonstrate</p> <p>SAFE PRACTICES</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> Wearing safety goggles or chemical splash goggles, as appropriate Washing hands Using materials appropriately Follow classroom and outdoor safety guidelines, as outlined in Texas Education Agency-approved safety standards Handle organisms appropriately <p>Note(s):</p> <ul style="list-style-type: none"> TEA: 	2.1A	<p>Identify, describe, and demonstrate safe practices as outlined in Texas Education Agency-approved safety standards during classroom and outdoor investigations, including wearing safety goggles or chemical splash goggles, as appropriate, washing hands, and using materials appropriately.</p> <p>Identify, Describe, Demonstrate</p> <p>SAFE PRACTICES</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> Wearing safety goggles or chemical splash goggles, as appropriate Washing hands Using materials appropriately Follow classroom and outdoor safety guidelines, as outlined in Texas Education Agency-approved safety standards Handle organisms appropriately <p>Note(s):</p> <ul style="list-style-type: none"> TEA:

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	<ul style="list-style-type: none"> • <i>Texas Safety Standards</i> http://www.tea.state.tx.us/index2.aspx?id=5483 		<ul style="list-style-type: none"> • <i>Texas Safety Standards</i> http://www.tea.state.tx.us/index2.aspx?id=5483 		<ul style="list-style-type: none"> • <i>Texas Safety Standards</i> http://www.tea.state.tx.us/index2.aspx?id=5483
K.1B	<p>Demonstrate how to use, conserve, and dispose of natural resources and materials such as conserving water and reusing or recycling paper, plastic, and metal.</p> <p>Demonstrate</p> <p>HOW TO USE, CONSERVE, AND DISPOSE OF NATURAL RESOURCES AND MATERIALS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Natural resources and materials • Possible examples may include: <ul style="list-style-type: none"> • Fresh water • Air • Plants • Animals • Conserving and reusing or recycling <ul style="list-style-type: none"> • Water • Paper • Plastic • Metals 	1.1B	<p>Identify and learn how to use natural resources and materials, including conservation and reuse or recycling of paper, plastic, and metals.</p> <p>Identify, Learn</p> <p>HOW TO USE NATURAL RESOURCES AND MATERIALS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Natural resources and materials • Possible examples may include: <ul style="list-style-type: none"> • Fresh water • Air • Plants • Animals • Conserving and reusing or recycling <ul style="list-style-type: none"> • Paper • Plastic • Metal 	2.1B	<p>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.</p> <p>Identify, Demonstrate</p> <p>HOW TO USE, CONSERVE, AND DISPOSE OF NATURAL RESOURCES AND MATERIALS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Natural resources and materials • Possible examples may include: <ul style="list-style-type: none"> • Fresh water • Air • Plants • Animals • Conserving and reusing or recycling <ul style="list-style-type: none"> • Water • Paper • Plastic • Metal

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K.2	<i>Scientific investigation and reasoning.</i> <i>The student develops abilities to ask questions and seek answers in classroom and outdoor investigations.</i> <i>The student is expected to:</i>	1.2	<i>Scientific investigation and reasoning.</i> <i>The student develops abilities to ask questions and seek answers in classroom and outdoor investigations.</i> <i>The student is expected to:</i>	2.2	<i>Scientific investigation and reasoning.</i> <i>The student develops abilities necessary to do scientific inquiry in classroom and outdoor investigations.</i> <i>The student is expected to:</i>
K.2A	Ask questions about organisms, objects, and events observed in the natural world. Ask QUESTIONS ABOUT OBSERVATIONS IN THE NATURAL WORLD Including, but not limited to: <ul style="list-style-type: none"> • Organisms • Plants • Animals • Objects • Events 	1.2A	Ask questions about organisms, objects, and events observed in the natural world. Ask QUESTIONS ABOUT OBSERVATIONS IN THE NATURAL WORLD Including, but not limited to: <ul style="list-style-type: none"> • Organisms • Plants • Animals • Objects • Events 	2.2A	Ask questions about organisms, objects, and events during observations and investigations. Ask QUESTIONS DURING OBSERVATIONS AND INVESTIGATIONS Including, but not limited to: <ul style="list-style-type: none"> • Organisms • Plants • Animals • Objects • Events
K.2B	Plan and conduct simple descriptive investigations. Plan, Conduct INVESTIGATIONS Including, but not limited to: <ul style="list-style-type: none"> • Simple descriptive Note(s): <ul style="list-style-type: none"> • TEA: • Descriptive investigations involve collecting qualitative and/or quantitative data to draw conclusions 	1.2B	Plan and conduct simple descriptive investigations. Plan, Conduct INVESTIGATIONS Including, but not limited to: <ul style="list-style-type: none"> • Simple descriptive Note(s): <ul style="list-style-type: none"> • TEA: • Descriptive investigations involve collecting qualitative and/or quantitative data to draw 	2.2B	Plan and conduct descriptive investigations. Plan, Conduct INVESTIGATIONS Including, but not limited to: <ul style="list-style-type: none"> • Descriptive Note(s): <ul style="list-style-type: none"> • TEA: • Descriptive investigations involve collecting qualitative and/or quantitative data to draw

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	<p>about a natural or man-made system (e.g., rock formation, animal behavior, cloud, bicycle, electrical circuit). A descriptive investigation includes a question, but no hypothesis. Observations are recorded, but no comparisons are made and no variables are manipulated. Descriptive investigations (Texas Education Agency. (2007-2011). Laboratory and Field Investigations –FAQ, August 2010. Retrieved from http://www.tea.state.tx.us/index2.aspx?id=5483)</p>		<p>conclusions about a natural or man-made system (e.g., rock formation, animal behavior, cloud, bicycle, electrical circuit). A descriptive investigation includes a question, but no hypothesis. Observations are recorded, but no comparisons are made and no variables are manipulated. Descriptive investigations (Texas Education Agency. (2007-2011). Laboratory and Field Investigations –FAQ, August 2010. Retrieved from http://www.tea.state.tx.us/index2.aspx?id=5483)</p>		<p>conclusions about a natural or man-made system (e.g., rock formation, animal behavior, cloud, bicycle, electrical circuit). A descriptive investigation includes a question, but no hypothesis. Observations are recorded, but no comparisons are made and no variables are manipulated. Descriptive investigations (Texas Education Agency. (2007-2011). Laboratory and Field Investigations –FAQ, August 2010. Retrieved from http://www.tea.state.tx.us/index2.aspx?id=5483)</p>
K.2C	<p>Collect data and make observations using simple tools.</p> <p>Collect</p> <p>DATA</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Use tools appropriately <p>Make</p> <p>OBSERVATIONS USING SIMPLE TOOLS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Possible examples may include: <ul style="list-style-type: none"> • Hand lenses • Primary balances • Non-standard measurement tools • Paper clips 	1.2C	<p>Collect data and make observations using simple tools.</p> <p>Collect</p> <p>DATA</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Use tools appropriately <p>Make</p> <p>OBSERVATIONS USING SIMPLE TOOLS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Possible examples may include: <ul style="list-style-type: none"> • Hand lenses • Primary balances • Non-standard measurement tools 	2.2C	<p>Collect data from observations using scientific tools.</p> <p>Collect</p> <p>DATA FROM OBSERVATIONS USING SCIENTIFIC TOOLS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Use tools appropriately • Possible examples may include: <ul style="list-style-type: none"> • Hand lenses • Primary balances • Thermometers • Non-standard measurement tools • Paper clips • Clothespins • Plastic counters

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	<ul style="list-style-type: none"> • Clothespins • Plastic counters • Interlocking cubes • Teddy bear counters 		<ul style="list-style-type: none"> • Paper clips • Clothespins • Plastic counters • Interlocking cubes • Teddy bear counters 		<ul style="list-style-type: none"> • Interlocking cubes • Teddy bear counters
K.2D	<p>Record and organize data and observations using pictures, numbers, and words.</p> <p>Record, Organize</p> <p>DATA AND OBSERVATIONS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Pictures • Real objects or pictures • Graphs • Picture graphs • Real-object graphs • Numbers • Words 	1.2D	<p>Record and organize data using pictures, numbers, and words.</p> <p>Record, Organize</p> <p>DATA</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Pictures • Graphs • Picture graphs • Real-object graphs • Bar graphs • Numbers • Words 	2.2D	<p>Record and organize data using pictures, numbers, and words.</p> <p>Record, Organize</p> <p>DATA</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Pictures • Graphs • Pictographs • Bar graphs • Numbers • Words
K.2E	<p>Communicate observations about simple descriptive investigations.</p> <p>Communicate</p> <p>OBSERVATIONS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Simple descriptive investigations <p>Note(s):</p> <ul style="list-style-type: none"> • TEA: 	1.2E	<p>Communicate observations and provide reasons for explanations using student-generated data from simple descriptive investigations.</p> <p>Communicate</p> <p>OBSERVATIONS</p> <p>Provide</p> <p>REASONS FOR EXPLANATIONS</p>	2.2E	<p>Communicate observations and justify explanations using student-generated data from simple descriptive investigations.</p> <p>Communicate</p> <p>OBSERVATIONS</p> <p>Including, but not limited to:</p>

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<ul style="list-style-type: none"> Descriptive investigations involve collecting qualitative and/or quantitative data to draw conclusions about a natural or man-made system (e.g., rock formation, animal behavior, cloud, bicycle, electrical circuit). A descriptive investigation includes a question, but no hypothesis. Observations are recorded, but no comparisons are made and no variables are manipulated. Descriptive investigations (Texas Education Agency. (2007-2011). Laboratory and Field Investigations –FAQ, August 2010. Retrieved from http://www.tea.state.tx.us/index2.aspx?id=5483) 	<p>Including, but not limited to:</p> <ul style="list-style-type: none"> Student-generated data from simple descriptive investigations <p>Note(s):</p> <ul style="list-style-type: none"> TEA: <ul style="list-style-type: none"> Descriptive investigations involve collecting qualitative and/or quantitative data to draw conclusions about a natural or man-made system (e.g., rock formation, animal behavior, cloud, bicycle, electrical circuit). A descriptive investigation includes a question, but no hypothesis. Observations are recorded, but no comparisons are made and no variables are manipulated. Descriptive investigations (Texas Education Agency. (2007-2011). Laboratory and Field Investigations –FAQ, August 2010. Retrieved from http://www.tea.state.tx.us/index2.aspx?id=5483) 	<ul style="list-style-type: none"> Student-generated data from simple descriptive investigations <p>Justify</p> <p>EXPLANATIONS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> Making claims from observations Providing evidence from observations in order to support claims Using reasoning to explain or justify the claims <p>Note(s):</p> <ul style="list-style-type: none"> TEA: <ul style="list-style-type: none"> Descriptive investigations involve collecting qualitative and/or quantitative data to draw conclusions about a natural or man-made system (e.g., rock formation, animal behavior, cloud, bicycle, electrical circuit). A descriptive investigation includes a question, but no hypothesis. Observations are recorded, but no comparisons are made and no variables are manipulated. Descriptive investigations (Texas Education Agency. (2007-2011). Laboratory and Field Investigations –FAQ, August 2010. Retrieved from http://www.tea.state.tx.us/index2.aspx?id=5483)

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				2.2F	<p>Compare results of investigations with what students and scientists know about the world.</p> <p>Compare</p> <p>RESULTS OF INVESTIGATIONS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • What students and scientists know about the world • Possible examples may include: <ul style="list-style-type: none"> • Investigations about weather • Investigations about choice of building materials (e.g., towers or bridges)
K.3	<i>Scientific investigation and reasoning. The student knows that information and critical thinking are used in scientific problem solving. The student is expected to:</i>	1.3	<i>Scientific investigation and reasoning. The student knows that information and critical thinking are used in scientific problem solving. The student is expected to:</i>	2.3	<i>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:</i>
K.3A	<p>Identify and explain a problem such as the impact of littering and propose a solution.</p> <p>Identify, Explain</p> <p>A PROBLEM</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Grade level appropriate problems • Impact of littering <p>Propose</p>	1.3A	<p>Identify and explain a problem and propose a solution.</p> <p>Identify, Explain</p> <p>A PROBLEM</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Grade level appropriate problems <p>Propose</p> <p>SOLUTION</p>	2.3A	<p>Identify and explain a problem and propose a task and solution for the problem.</p> <p>Identify, Explain</p> <p>A PROBLEM</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Grade level appropriate problems <p>Propose</p>

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	<p>SOLUTION</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> Possible solution Picking up or recycling trash on the playground 		<p>Including, but not limited to:</p> <ul style="list-style-type: none"> Grade level appropriate solutions 		<p>A TASK AND SOLUTION FOR THE PROBLEM</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> Possible task Observe and research the problem Propose a solution
K.3B	<p>Make predictions based on observable patterns in nature.</p> <p>Make</p> <p>PREDICTIONS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> Based on observable patterns in nature Growth of plants Day to day changes in weather Seasons of the year Day and night Patterns in changes in the appearance of objects in the sky, such as clouds, Moon, stars, and the Sun 	1.3B	<p>Make predictions based on observable patterns.</p> <p>Make</p> <p>PREDICTIONS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> Observable patterns Patterns in weather Patterns in seasons Patterns in the growth of plants and animals Patterns in day and night 	2.3B	<p>Make predictions based on observable patterns.</p> <p>Make</p> <p>PREDICTIONS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> Based on observable patterns Patterns in nature Plant growth Life cycle Patterns in events Appearance of the Moon Apparent movement of the Sun's position in the sky Weather information
K.3C	<p>Explore that scientists investigate different things in the natural world and use tools to help in their investigations.</p> <p>Explore</p> <p>SCIENTISTS' INVESTIGATIONS, TOOLS</p> <p>Including, but not limited to:</p>	1.3C	<p>Describe what scientists do.</p> <p>Describe</p> <p>WHAT SCIENTISTS DO</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> Skills used by scientists are similar to those used in the classroom 	2.3C	<p>Identify what a scientist is and explore what different scientists do.</p> <p>Identify</p> <p>WHAT A SCIENTIST IS</p> <p>Explore</p> <p>WHAT DIFFERENT SCIENTISTS DO</p>

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	<ul style="list-style-type: none"> • Basic definition of a scientist in the natural world • Process skills / tools scientists use • Possible examples of scientists may include: <ul style="list-style-type: none"> • Jane Goodall (conservation, animal welfare) • Jacques Cousteau (explorer, ecologist, oceanographer) • Maria Mitchell (astronomer, educator) 		<ul style="list-style-type: none"> • Observing • Questioning • Measuring • Classifying • Predicting • Investigating • Communicating • Possible examples of scientists may include: <ul style="list-style-type: none"> • Florence Bascom (geologist) • *Alexander Graham Bell (inventor, credited with inventing the first telephone; engineer) • Rachel Carson (marine biologist, conservationist) • *Thomas Edison (inventor, contributed to the invention of the phonograph, incandescent light bulb, and typewriter) • Ben Franklin (scientist, inventor) • *Garrett Morgan (inventor, rebreathing device that was adapted into a gas mask during WWI) • Sally Ride (astronaut, physicist, educator) <p>Note(s):</p> <ul style="list-style-type: none"> • *Possible examples of scientists noted above correlate with Social Studies TEKS 1.2B for Grade 1. 		<p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Specific disciplines scientists study (e.g., botany, zoology, geology, oceanography, meteorology, and ecology) • Possible examples of scientists may include: <ul style="list-style-type: none"> • John Muir (naturalist, conservationist) • Eugenie Clark (ecologist; oceanographer - sharks) • *Amelia Earhart (pilot) • *Robert Fulton (developed the first commercially successful steamboat) <p>Note(s):</p> <ul style="list-style-type: none"> • *Possible examples of scientists noted above correlate with Social Studies TEKS 2.4B for Grade 2.

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K.4	<i>Scientific investigation and reasoning. The student uses age-appropriate tools and models to investigate the natural world. The student is expected to:</i>	1.4	<i>Scientific investigation and reasoning. The student uses age-appropriate tools and models to investigate the natural world. The student is expected to:</i>	2.4	<i>Scientific investigation and reasoning. The student uses age-appropriate tools and models to investigate the natural world. The student is expected to:</i>
K.4A	<p>Collect information using tools, including computing devices, hand lenses, primary balances, cups, bowls, magnets, collecting nets, and notebooks; timing devices; non-standard measuring items; weather instruments such as demonstration thermometers; and materials to support observations of habitats of organisms such as terrariums and aquariums.</p> <p>Collect</p> <p>INFORMATION USING TOOLS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Computers • Hand lenses • Non-standard measuring items • Weather instruments <ul style="list-style-type: none"> • Demonstration thermometers • Primary balances • Cups • Bowls • Timing devices • Magnets • Collecting nets • Notebooks 	1.4A	<p>Collect, record, and compare information using tools, including computers, hand lenses, primary balances, cups, bowls, magnets, collecting nets, notebooks, and safety goggles or chemical splash goggles, as appropriate; 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.</p> <p>Collect, Record, Compare</p> <p>INFORMATION USING TOOLS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Computers • Hand lenses • Non-standard measuring items • Weather instruments <ul style="list-style-type: none"> • Demonstration thermometers • Wind socks • Primary balances • Cups • Bowls • Timing devices 	2.4A	<p>Collect, record, and compare information using tools, including computers, hand lenses, rulers, plastic beakers, magnets, collecting nets, notebooks, and safety goggles or chemical splash goggles, as appropriate; 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.</p> <p>Collect, Record, Compare</p> <p>INFORMATION USING TOOLS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Computers • Hand lenses • Rulers (cm) • Weather instruments <ul style="list-style-type: none"> • Thermometer • Wind vanes • Rain gauge • Primary balance • Plastic beakers • Timing devices • Magnets

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KINDERGARTEN		GRADE 1		GRADE 2	
	<ul style="list-style-type: none"> • Safety goggles or chemical splash goggles • Materials to support observations of habitats of organisms <ul style="list-style-type: none"> • Aquariums • Terrariums 		<ul style="list-style-type: none"> • Magnets • Collecting nets • Notebooks • Safety goggles or chemical splash goggles • Materials to support observations of habitats of organisms <ul style="list-style-type: none"> • Aquariums • Terrariums 		<ul style="list-style-type: none"> • Collecting nets • Notebooks • Safety goggles or chemical splash goggles • Materials to support observations of habitats of organisms <ul style="list-style-type: none"> • Aquariums • Terrariums
K.4B	<p>Use the senses as a tool of observation to identify properties and patterns of organisms, objects, and events in the environment.</p> <p>Use</p> <p>SENSES AS A TOOL OF OBSERVATION TO IDENTIFY PROPERTIES AND PATTERNS AND EVENTS IN THE ENVIRONMENT</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Senses <ul style="list-style-type: none"> • Sight • Taste • Smell • Hearing • Touch • Properties and patterns <ul style="list-style-type: none"> • Organisms <ul style="list-style-type: none"> • Plants • Animals 	1.4B	<p>Measure and compare organisms and objects using non-standard units.</p> <p>Measure, Compare</p> <p>ORGANISMS AND OBJECTS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Use non-standard units <ul style="list-style-type: none"> • Paper clips • Clothespins • Cups • Bowls • Measure length, liquid volume (capacity), and mass / weight of organisms and objects using non-standard units • Describe the relationship between the type of unit and the type of measurement needed (e.g., cup or bowl for measuring capacity) • Make comparisons using non-standard units 	2.4B	<p>Measure and compare organisms and objects.</p> <p>Measure, Compare</p> <p>ORGANISMS AND OBJECTS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Measure length and mass of organisms and objects, and liquid volume (capacity)

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SCIENCE VERTICAL ALIGNMENT DOCUMENT

KINDERGARTEN		GRADE 1		GRADE 2	
	<ul style="list-style-type: none"> • Objects • Size • Shape • Color • Texture • Events • Day and night • Weather • Seasons 		<ul style="list-style-type: none"> • Organisms • Objects 		
MATTER AND ENERGY					
K.5	<i>Matter and energy. The student knows that objects have properties and patterns. The student is expected to:</i>	1.5	<i>Matter and energy. The student knows that objects have properties and patterns. The student is expected to:</i>	2.5	<i>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:</i>
K.5A	<p>Observe and record properties of objects, including bigger or smaller, heavier or lighter, shape, color, and texture.</p> <p>Observe, Record</p> <p>PROPERTIES OF OBJECTS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Size • Bigger • Smaller • Weight • Heavier • Lighter • Shape 	1.5A	<p>Classify objects by observable properties such as larger and smaller, heavier and lighter, shape, color, and texture.</p> <p>Classify</p> <p>OBJECTS BY OBSERVABLE PROPERTIES</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Size • Larger • Smaller • Weight • Heavier • Lighter 	2.5A	<p>Classify matter by physical properties, including relative temperature, texture, flexibility, and whether material is a solid or liquid.</p> <p>Classify</p> <p>MATTER BY PHYSICAL PROPERTIES</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Physical properties – properties of matter that can be observed, measured, or changed without changing the matter itself • Matter – the material that everything is made of • Relative temperature (as it relates to comparison of the temperature of

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KINDERGARTEN	GRADE 1	GRADE 2
<ul style="list-style-type: none"> • Color <ul style="list-style-type: none"> • Red • Orange • Yellow • Green • Blue • Purple • Black • Brown • White • Texture <ul style="list-style-type: none"> • Rough • Smooth • Bumpy • Soft 	<ul style="list-style-type: none"> • Shape • Color <ul style="list-style-type: none"> • Red • Orange • Yellow • Green • Blue • Purple • Black • Brown • White • Texture <ul style="list-style-type: none"> • Rough • Smooth • Bumpy • Soft 	<p>two objects or two days using a thermometer)</p> <ul style="list-style-type: none"> • Cooler • Warmer • Hotter • Texture <ul style="list-style-type: none"> • Rough • Smooth • Bumpy • Soft • Flexibility (ability to bend) <ul style="list-style-type: none"> • Bendable / flexible • Rigid / stiff • Solid or liquid <p>Note(s):</p> <ul style="list-style-type: none"> • This is students' first encounter with states of matter. • This is the only encounter students will have with the physical property of "flexibility" at the elementary level. • Project 2061: By the end of 2nd grade, the student should know that: <ul style="list-style-type: none"> • Objects can be described in terms of their properties. Some properties, such as hardness and flexibility, depend upon what material the object is made of, and some properties, such as size and shape, do not. 4D/P1*

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KINDERGARTEN		GRADE 1		GRADE 2	
K.5B	<p>Observe, record, and discuss how materials can be changed by heating or cooling.</p> <p>Observe, Record, Discuss</p> <p>HOW MATERIALS CAN BE CHANGED</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Changed by heating <ul style="list-style-type: none"> • Ice melting • Changed by cooling <ul style="list-style-type: none"> • Water freezing 	1.5B	<p>Predict and identify changes in materials caused by heating and cooling.</p> <p>Predict, Identify</p> <p>CHANGES IN MATERIALS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Caused by heating <ul style="list-style-type: none"> • Possible examples may include: <ul style="list-style-type: none"> • Melting – to change from a solid to a liquid by adding heat <ul style="list-style-type: none"> • Ice • Butter • Crayons • Caused by cooling <ul style="list-style-type: none"> • Possible examples may include: <ul style="list-style-type: none"> • Freezing – to change from a liquid to a solid by loss of heat (cooling) <ul style="list-style-type: none"> • Water freezing 	2.5B	<p>Compare changes in materials caused by heating and cooling.</p> <p>Compare</p> <p>CHANGES IN MATERIALS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Caused by heating <ul style="list-style-type: none"> • Melting – to change from a solid to a liquid by adding heat <ul style="list-style-type: none"> • Possible examples of materials that can melt: <ul style="list-style-type: none"> • Ice • Chocolate • Candle • Caused by cooling <ul style="list-style-type: none"> • Freezing – to change from a liquid to a solid by loss of heat (cooling) <ul style="list-style-type: none"> • Possible examples of materials that can freeze: <ul style="list-style-type: none"> • Water • Juice

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KINDERGARTEN		GRADE 1		GRADE 2	
			one form to the other. If water is turned into ice and then the ice is allowed to melt, the amount of water is the same as it was before freezing. 4B/P2		<ul style="list-style-type: none"> Water can be a liquid or a solid and can go back and forth from one form to the other. If water is turned into ice and then the ice is allowed to melt, the amount of water is the same as it was before freezing. 4B/P2
		1.5C	<p>Classify objects by the materials from which they are made.</p> <p>Classify</p> <p>OBJECTS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> By the materials from which they are made 		
				2.5C	<p>Demonstrate that things can be done to materials such as cutting, folding, sanding, and melting to change their physical properties.</p> <p>Demonstrate</p> <p>THAT THINGS CAN BE DONE TO MATERIALS TO CHANGE THEIR PHYSICAL PROPERTIES</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> Cutting Shape Size Texture Weight Folding

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					<ul style="list-style-type: none"> • Shape • Size • Sanding • Color • Shape • Size • Texture • Weight • Melting <ul style="list-style-type: none"> • Color • Shape • Size • Texture <p>Note(s):</p> <ul style="list-style-type: none"> • STAAR: <ul style="list-style-type: none"> • Although not identified as a Supporting Standard, this student expectation builds the foundation for the content of Supporting Standard 5.5C. • Project 2061: By the end of 2nd grade, the student should know that: <ul style="list-style-type: none"> • Things can be done to materials to change some of their properties, but not all materials respond the same way to what is done to them. <p>4D/P2</p>

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				2.5D	<p>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.</p> <p>Combine</p> <p>MATERIALS THAT WHEN PUT TOGETHER CAN DO THINGS THAT THEY CANNOT DO BY THEMSELVES</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Building a tower or a bridge <ul style="list-style-type: none"> • Possible materials may include: <ul style="list-style-type: none"> • Craft sticks • Paper clips • Rubber bands • Paper • Toothpicks • Note cards • Straws <p>Justify</p> <p>THE SELECTION OF MATERIALS BASED ON THEIR PHYSICAL PROPERTIES</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Justification of selection of materials based on: <ul style="list-style-type: none"> • Size

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KINDERGARTEN		GRADE 1		GRADE 2	
					<ul style="list-style-type: none"> • Shape • Color • Texture • Flexibility • Relative temperature • Weight • Liquid or solid <p>Note(s):</p> <ul style="list-style-type: none"> • According to Process Standard 2.2B, students are required to plan and conduct simple descriptive investigations.
FORCE, MOTION, AND ENERGY					
K.6	<i>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:</i>	1.6	<i>Force, motion, and energy. The student knows that force, motion, and energy are related and are a part of everyday life. The student is expected to:</i>	2.6	<i>Force, motion, and energy. The student knows that forces cause change and energy exists in many forms. The student is expected to:</i>
K.6A	<p>Use the senses to explore different forms of energy such as light, thermal, and sound.</p> <p>Explore</p> <p>DIFFERENT FORMS OF ENERGY</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Light energy • Sources of light (e.g., sunlight, artificial light) • Color • Thermal energy 	1.6A	<p>Identify and discuss how different forms of energy such as light, thermal, and sound are important to everyday life.</p> <p>Identify, Discuss</p> <p>HOW DIFFERENT FORMS OF ENERGY ARE IMPORTANT TO EVERYDAY LIFE</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Light energy • Examples • Sunlight 	2.6A	<p>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.</p> <p>Investigate</p> <p>THE EFFECTS ON OBJECTS BY INCREASING OR DECREASING AMOUNTS OF ENERGY</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Light energy

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	<ul style="list-style-type: none"> • Sources of thermal energy (e.g., sun, fire) • Sound energy • Sources of sound (e.g., fire alarm, police siren, people talking) • Perception of sound <ul style="list-style-type: none"> • Loud • Soft • High • Low • Senses that can be used to safely explore energy <ul style="list-style-type: none"> • Sight • Hearing • Touch 	<ul style="list-style-type: none"> • Artificial light • Importance <ul style="list-style-type: none"> • We need light to see • Plants need light to grow • Thermal energy <ul style="list-style-type: none"> • Examples <ul style="list-style-type: none"> • Sun • Fire • Appliances • Importance <ul style="list-style-type: none"> • We need heat to keep us warm • Some animals need heat to survive • We need heat to cook our food • Sound energy <ul style="list-style-type: none"> • Examples <ul style="list-style-type: none"> • Fire alarm • Police siren • People talking • Importance <ul style="list-style-type: none"> • To warn us of danger • To communicate 	<ul style="list-style-type: none"> • Increasing or decreasing light <ul style="list-style-type: none"> • Color of an object appearing different in dimmer light • Effects on plant growth • Changes the appearance (length) of a shadow • Heat (thermal) energy <ul style="list-style-type: none"> • Increasing heat <ul style="list-style-type: none"> • Melts butter • Decreasing heat <ul style="list-style-type: none"> • Freezes water into ice • Sound energy <ul style="list-style-type: none"> • Increasing or decreasing sound energy – vibrations change • Possible example of increase or decrease in sound energy: <ul style="list-style-type: none"> • Blowing a whistle harder and softer <p>Note(s):</p> <ul style="list-style-type: none"> • STAAR: <ul style="list-style-type: none"> • Although not identified as a Supporting Standard, this student expectation builds the foundation for the content of Supporting Standard 3.5C.
K.6B	<p>Explore interactions between magnets and various materials.</p> <p>Explore</p> <p>INTERACTIONS BETWEEN MAGNETS AND VARIOUS MATERIALS</p>	<p>1.6B</p> <p>Predict and describe how a magnet can be used to push or pull an object.</p> <p>Predict, Describe</p> <p>HOW A MAGNET CAN BE USED TO PUSH OR PULL AN OBJECT</p>	<p>2.6B</p> <p>Observe and identify how magnets are used in everyday life.</p> <p>Observe, Identify</p> <p>HOW MAGNETS ARE USED IN EVERYDAY LIFE</p>

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	<p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Magnet – an object that attracts (pulls) magnetic materials • The interaction of pulling (attraction) <ul style="list-style-type: none"> • Between two magnets • Between magnetic materials and a magnet • The interaction of pushing (repelling) <ul style="list-style-type: none"> • Between two magnets • No interaction (no pushing or pulling) <ul style="list-style-type: none"> • Nonmagnetic materials and a magnet 		<p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Magnet – an object that attracts (pulls) magnetic materials • Attracting (pull) <ul style="list-style-type: none"> • Between two magnets • Between magnetic materials and a magnet • Repelling (push) <ul style="list-style-type: none"> • Between two magnets <p>Note(s):</p> <ul style="list-style-type: none"> • STAAR: <ul style="list-style-type: none"> • Although not identified as a Supporting Standard, this student expectation builds the foundation for the content of Readiness Standard 5.5A. 		<p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Magnet – an object that attracts (pulls) iron and a few other magnetic materials • Separation of metals that are magnetic from those that are not magnetic • Machines • Possible examples may include: <ul style="list-style-type: none"> • Transportation (e.g., trains using magnetic levitation; car motors) • Tools • Appliances • Toys
K.6C	<p>Observe and describe the location of an object in relation to another such as above, below, behind, in front of, and beside.</p> <p>Observe, Describe</p> <p>THE LOCATION OF AN OBJECT IN RELATION TO ANOTHER</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Above • Below • Behind • In front of 			2.6C	<p>Trace and compare patterns of movement of objects such as sliding, rolling, and spinning over time.</p> <p>Trace, Compare</p> <p>PATTERNS OF MOVEMENT OF OBJECTS OVER TIME</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Sliding • Rolling • Spinning <p>Note(s):</p> <ul style="list-style-type: none"> • STAAR:

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	<ul style="list-style-type: none"> • Beside • Additional possible examples may include: <ul style="list-style-type: none"> • Beneath • Between • Up • Down • Left • Right 				<ul style="list-style-type: none"> • Although not identified as a Supporting Standard, this student expectation builds the foundation for the content of Supporting Standards 3.6B and 5.6D.
K.6D	<p>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.</p> <p>Observe, Describe</p> <p>THE WAYS THAT OBJECTS CAN MOVE</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • In a straight line • Zigzag • Up and down • Back and forth • Round and round • Fast and slow 	1.6C	<p>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> <p>Demonstrate, Record</p> <p>THE WAYS THAT OBJECTS CAN MOVE</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • In a straight line • Zigzag • Up and down • Back and forth • Round and round • Fast and slow 		

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EARTH AND SPACE					
K.7	<i>Earth and space. The student knows that the natural world includes earth materials. The student is expected to:</i>	1.7	<i>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:</i>	2.7	<i>Earth and space. The student knows that the natural world includes earth materials. The student is expected to:</i>
K.7A	<p>Observe, describe, and sort rocks by size, shape, color, and texture.</p> <p>Observe, Describe, Sort</p> <p>ROCKS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Size <ul style="list-style-type: none"> • Small • Medium • Large • Shape <ul style="list-style-type: none"> • Round • Egg-shaped • Flat • Color <ul style="list-style-type: none"> • White • Gray / black • Brown • Speckled • Texture <ul style="list-style-type: none"> • Rough • Smooth • Bumpy 	1.7A	<p>Observe, compare, describe and sort components of soil by size, texture, and color.</p> <p>Observe, Describe, Compare, Sort</p> <p>COMPONENTS OF SOIL</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Size <ul style="list-style-type: none"> • Small particles (clay) • Medium particles (loam) • Large particles (sand) • Texture <ul style="list-style-type: none"> • Rough • Smooth • Bumpy • Grainy • Sticky • Color <ul style="list-style-type: none"> • Gray • Black • Brown • Rust • Tan • Beige 	2.7A	<p>Observe, describe, and compare rocks by size, texture, and color.</p> <p>Observe, Describe, Compare</p> <p>ROCKS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Size <ul style="list-style-type: none"> • Boulders (bigger than a basketball) • Pebbles (about the size of a grain of rice up to the size of a marble) • Sand (size and texture of table salt) • Texture <ul style="list-style-type: none"> • Rough • Smooth • Bumpy • Color <ul style="list-style-type: none"> • White • Gray / black • Brown • Speckled <p>Note(s):</p> <ul style="list-style-type: none"> • STAAR:

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KINDERGARTEN		GRADE 1		GRADE 2	
	<p>Note(s):</p> <ul style="list-style-type: none"> Project 2061: By the end of 2nd grade, the student should know that: Chunks of rocks come in many sizes and shapes, from boulders to grains of sand and even smaller. 4C/P1 		<p>Note(s):</p> <ul style="list-style-type: none"> STAAR: Although not identified as a Supporting Standard, this student expectation builds the foundation for the content of Supporting Standard 4.7A. 		<ul style="list-style-type: none"> Although not identified as a Supporting Standard, this student expectation builds the foundation for the content of Supporting Standard 4.7A. Project 2061: By the end of 2nd grade, the student should know that: Chunks of rocks come in many sizes and shapes, from boulders to grains of sand and even smaller. 4C/P1
K.7B	<p>Observe and describe physical properties of natural sources of water, including color and clarity.</p> <p>Observe, Describe</p> <p>PHYSICAL PROPERTIES OF WATER</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> Properties of water <ul style="list-style-type: none"> Color Clarity <ul style="list-style-type: none"> Clear Cloudy Temperature <ul style="list-style-type: none"> Warm Cool Cold Hot Odor <p>Observe, Describe</p>	1.7B	<p>Identify and describe a variety of natural sources of water, including streams, lakes, and oceans.</p> <p>Identify</p> <p>A VARIETY OF NATURAL SOURCES OF WATER</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> Stream Lake Ocean Pond River Hot springs or geysers <p>Describe</p> <p>A VARIETY OF NATURAL SOURCES OF WATER</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> Freshwater (e.g., river) 	2.7B	<p>Identify and compare the properties of natural sources of freshwater and saltwater.</p> <p>Identify, Compare</p> <p>THE PROPERTIES OF NATURAL SOURCES OF WATER</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> Properties of fresh and saltwater <ul style="list-style-type: none"> Aroma Taste Feel Sink or float (freshwater vs. saltwater) Ability to support life Natural sources of water <ul style="list-style-type: none"> Freshwater <ul style="list-style-type: none"> Rivers Lakes Ponds

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KINDERGARTEN		GRADE 1		GRADE 2	
	<p>PROPERTIES OF NATURAL SOURCES OF WATER</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> Natural sources <ul style="list-style-type: none"> Ocean Lake Pond River Stream Hot springs or geysers 		<ul style="list-style-type: none"> Saltwater (e.g., ocean) Still (e.g., pond) Moving (e.g., stream) 		<ul style="list-style-type: none"> Streams Hot springs or geysers Saltwater <ul style="list-style-type: none"> Ocean Great Salt Lake
K.7C	<p>Give examples of ways rocks, soil, and water are useful.</p> <p>Give</p> <p>EXAMPLES OF WAYS ROCKS, SOIL, AND WATER ARE USEFUL</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> Rocks <ul style="list-style-type: none"> For buildings (e.g., houses, museums, monuments) To make jewelry To build roads or bridges Soil <ul style="list-style-type: none"> In gardens to grow plants (e.g., flowers, vegetables) In the community, for playgrounds or to support buildings Water 	1.7C	<p>Identify how rocks, soil, and water are used to make products.</p> <p>Identify</p> <p>HOW ROCKS, SOIL, AND WATER ARE USED TO MAKE PRODUCTS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> Rocks <ul style="list-style-type: none"> Homes Buildings Jewelry Food (salt and calcium for foods) Soil <ul style="list-style-type: none"> Bricks for buildings (clay) Pots for plants Garden beds Animal homes 		

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KINDERGARTEN		GRADE 1		GRADE 2	
	<ul style="list-style-type: none"> • For recreation (e.g., swimming, boating, fishing) • At home (e.g., cooking, bathing, cleaning, pets) • In the community (e.g., fountains, parks) • For a garden 		<ul style="list-style-type: none"> • Water • Food and beverages 		
				2.7C	<p>Distinguish between natural and manmade resources.</p> <p>Distinguish</p> <p>BETWEEN NATURAL AND MANMADE RESOURCES</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Natural resources <ul style="list-style-type: none"> • Plants • Animals • Sunlight • Air • Water • Rocks • Soil • Fossil fuels • Manmade resources <ul style="list-style-type: none"> • Manufactured goods <p>Note(s):</p> <ul style="list-style-type: none"> • STAAR: <ul style="list-style-type: none"> • Although not identified as a Supporting Standard, this student

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KINDERGARTEN		GRADE 1		GRADE 2	
					expectation builds the foundation for the content of Supporting Standard 4.7C.
K.8	<i>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:</i>	1.8	<i>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:</i>	2.8	<i>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:</i>
K.8A	<p>Observe and describe weather changes from day to day and over seasons.</p> <p>Observe, Describe</p> <p>WEATHER CHANGES FROM DAY TO DAY</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Types of weather <ul style="list-style-type: none"> • Sunny • Clear • Cloudy • Calm • Windy • Rainy • Snowy • Types of temperatures <ul style="list-style-type: none"> • Warm • Cool • Hot • Cold <p>Observe, Describe</p> <p>CHANGES OVER SEASONS</p>	1.8A	<p>Record weather information, including relative temperature such as hot or cold, clear or cloudy, calm or windy, and rainy or icy.</p> <p>Record</p> <p>WEATHER INFORMATION</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Relative temperature <ul style="list-style-type: none"> • Hot or cold • Clear or cloudy • Calm or windy • Rainy or icy • Types of record keeping may include: <ul style="list-style-type: none"> • Notebooks • Calendars • Chart paper 	2.8A	<p>Measure, record, and graph weather information, including temperature, wind conditions, precipitation, and cloud coverage, in order to identify patterns in the data.</p> <p>Measure, Record, Graph</p> <p>WEATHER INFORMATION IN ORDER TO IDENTIFY PATTERNS IN THE DATA</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Changes in weather <ul style="list-style-type: none"> • Temperature <ul style="list-style-type: none"> • Using and reading a thermometer • Wind conditions <ul style="list-style-type: none"> • Using and reading a wind vane • Precipitation <ul style="list-style-type: none"> • Using and reading a rain gauge • Cloud coverage • Patterns in weather <ul style="list-style-type: none"> • Patterns in temperature (hot weather, cold weather) • Patterns in wind conditions (windy, breezy, calm)

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KINDERGARTEN	GRADE 1	GRADE 2
<p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Weather changes over time <ul style="list-style-type: none"> • Spring • Summer • Autumn (fall) • Winter • Temperature changes over time <ul style="list-style-type: none"> • Warm • Cool • Hot • Cold 		<ul style="list-style-type: none"> • Patterns in precipitation (rain, hail, sleet, snow, dry conditions) • Patterns in cloud coverage (clear, partially cloudy, overcast) • Types of record keeping may include: <ul style="list-style-type: none"> • Notebooks • Calendars • Chart paper • Types of graphing may include: <ul style="list-style-type: none"> • Pictographs • Bar graphs <p>Note(s):</p> <ul style="list-style-type: none"> • STAAR: <ul style="list-style-type: none"> • This is the first time that students have been introduced to the tools used to measure weather. Although not identified as a Supporting Standard, this student expectation builds the foundation for the content of Supporting Standard 4.8A. • Students may benefit from organizing weather data in multiple formats, such as pictographs and bar graphs (2.2D). • Project 2061: By the end of 2nd grade, the student should know that: <ul style="list-style-type: none"> • The temperature and amount of rain (or snow) tend to be high, low, or medium in the same months every year. 4B/P1*

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SCIENCE VERTICAL ALIGNMENT DOCUMENT

KINDERGARTEN		GRADE 1		GRADE 2	
K.8B	<p>Identify events that have repeating patterns, including seasons of the year and day and night.</p> <p>Identify</p> <p>EVENTS THAT HAVE REPEATING PATTERNS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Seasons of the year <ul style="list-style-type: none"> • Spring • Summer • Autumn (fall) • Winter • Day and night 	1.8C	<p>Identify characteristics of the seasons of the year and day and night.</p> <p>Identify</p> <p>CHARACTERISTICS OF THE SEASONS OF THE YEAR</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Changes in temperature • Changes in precipitation • Changes in wind conditions • Changes in plants • Changes in animals <p>Identify</p> <p>CHARACTERISTICS OF DAY AND NIGHT</p> <p>Including but not limited to:</p> <ul style="list-style-type: none"> • Appearance of the sky <ul style="list-style-type: none"> • The Sun’s apparent movement from east to west • Light • Dark • Human activities <ul style="list-style-type: none"> • Daytime activities • Nighttime activities <p>Note(s):</p> <ul style="list-style-type: none"> • STAAR: <ul style="list-style-type: none"> • Although not identified as a Supporting Standard, this student 	2.8B	<p>Identify the importance of weather and seasonal information to make choices in clothing, activities, and transportation.</p> <p>Identify</p> <p>IMPORTANCE OF WEATHER AND SEASONAL INFORMATION TO MAKE CHOICES</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Clothing <ul style="list-style-type: none"> • Gloves • Hats • Raincoat • Sweater • Coat • Shoes • Activities <ul style="list-style-type: none"> • Sports • Swimming • Transportation <ul style="list-style-type: none"> • Car • Bike • Walking

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KINDERGARTEN		GRADE 1		GRADE 2	
			expectation builds the foundation for the content of Readiness Standard 5.8C.		
K.8C	<p>Observe, describe, and illustrate objects in the sky such as the clouds, Moon, and stars, including the Sun.</p> <p>Observe, Describe, Illustrate</p> <p>OBJECTS IN THE SKY</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Clouds • Possible examples may include: <ul style="list-style-type: none"> • Many • Few • “Puffy” • “Wispy” • Moon • Possible examples may include: <ul style="list-style-type: none"> • Part of the Moon • Half of the Moon • Most of the Moon • All of the Moon • Stars • Easily seen stars • Sun <p>Note(s):</p> <ul style="list-style-type: none"> • STAAR: <ul style="list-style-type: none"> • Although not identified as a Supporting Standard, this student 	1.8B	<p>Observe and record changes in the appearance of objects in the sky such as the Moon and stars, including the Sun.</p> <p>Observe, Record</p> <p>CHANGES IN THE APPEARANCE OF OBJECTS IN THE SKY</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Moon <ul style="list-style-type: none"> • Possible examples may include: <ul style="list-style-type: none"> • Part of the Moon • Half of the Moon • Most of the Moon • All of the Moon • Stars (Sun) <ul style="list-style-type: none"> • Possible examples may include: <ul style="list-style-type: none"> • Seen during the day • Seen during the night • Bright • Reddish • Types of record keeping may include: <ul style="list-style-type: none"> • Notebooks • Calendars • Chart paper 	2.8C	<p>Observe, describe, and record patterns of objects in the sky, including the appearance of the Moon.</p> <p>Observe, Describe, Record</p> <p>PATTERNS OF OBJECTS IN THE SKY</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Appearance of the Moon <ul style="list-style-type: none"> • Possible examples may include: <ul style="list-style-type: none"> • Part of the Moon • Half of the Moon • Most of the Moon • All of the Moon • Examples of objects in the sky may include: <ul style="list-style-type: none"> • Patterns of stars • Apparent movement of the Sun’s position in the sky <ul style="list-style-type: none"> • Sunrise (east) • Noon (overhead) • Sunset (west) • Types of record keeping may include: <ul style="list-style-type: none"> • Notebooks • Calendars • Chart paper <p>Note(s):</p>

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SCIENCE VERTICAL ALIGNMENT DOCUMENT

KINDERGARTEN	GRADE 1	GRADE 2
<p>expectation builds the foundation for the content of Supporting Standard 4.8C.</p>	<p>Note(s):</p> <ul style="list-style-type: none"> • STAAR: <ul style="list-style-type: none"> • Although not identified as a Supporting Standard, this student expectation builds the foundation for the content of Supporting Standard 4.8C. • Project 2061: By the end of 2nd grade, the student should know that: <ul style="list-style-type: none"> • There are more stars in the sky than anyone can easily count, but they are not scattered evenly, and they are not all the same in brightness or color. 4A/P1 	<ul style="list-style-type: none"> • STAAR: <ul style="list-style-type: none"> • Although not identified as a Supporting Standard, this student expectation builds the foundation for the content of Supporting Standard 4.8C and Readiness Standard 5.8C. • Project 2061: By the end of 2nd grade, the student should know that: <ul style="list-style-type: none"> • The Sun can be seen only in the daytime, but the Moon can be seen sometimes at night and sometimes during the day. The Sun, Moon, and stars all appear to move slowly across the sky. 4A/P2 • The Moon looks a little different every day but looks the same again about every four weeks. 4A/P3
	<p>1.8D</p> <p>Demonstrate that air is all around us and observe that wind is moving air.</p> <p>Demonstrate</p> <p>AIR</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Is all around us <p>Observe</p> <p>WIND</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Is moving air 	

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KINDERGARTEN		GRADE 1		GRADE 2	
ORGANISMS AND ENVIRONMENTS					
K.9	<i>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:</i>	1.9	<i>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:</i>	2.9	<i>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:</i>
K.9A	<p>Differentiate between living and nonliving things based upon whether they have basic needs and produce offspring.</p> <p>Differentiate</p> <p>BETWEEN LIVING AND NONLIVING THINGS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Living things have basic needs and produce offspring • Basic needs of animals <ul style="list-style-type: none"> • Water • Food • Shelter • Basic needs of plants <ul style="list-style-type: none"> • Air • Water • Sunlight • Space • Nutrients • Living things produce offspring • Nonliving things do not have basic needs 	1.9A	<p>Sort and classify living and nonliving things based upon whether they have basic needs and produce offspring.</p> <p>Sort, Classify</p> <p>LIVING AND NONLIVING THINGS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Whether they have basic needs <ul style="list-style-type: none"> • Animals and plants have basic needs <ul style="list-style-type: none"> • Basic needs of animals <ul style="list-style-type: none"> • Water • Food • Shelter • Basic needs of plants <ul style="list-style-type: none"> • Air • Water • Sunlight • Space • Nutrients • Nonliving things do not have basic needs • Whether they produce offspring 	2.9A	<p>Identify the basic needs of plants and animals.</p> <p>Identify</p> <p>BASIC NEEDS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Plants <ul style="list-style-type: none"> • Water • Light • Air • Space • Nutrients • Animals <ul style="list-style-type: none"> • Water • Food • Shelter • Air <p>Note(s):</p> <ul style="list-style-type: none"> • Project 2061: By the end of 2nd grade, the student should know that: • People need water, food, air, waste removal, and a particular range of

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KINDERGARTEN		GRADE 1		GRADE 2	
	<ul style="list-style-type: none"> • Nonliving things do not produce offspring 		<ul style="list-style-type: none"> • Living things (organisms) produce offspring <ul style="list-style-type: none"> • Animals • Plants • Nonliving things do not produce offspring 		temperatures in their environment, just as other animals do. 6A/P2
K.9B	<p>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.</p> <p>Examine</p> <p>EVIDENCE THAT LIVING ORGANISMS HAVE BASIC NEEDS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Basic needs of animals <ul style="list-style-type: none"> • Water • Food • Shelter • Basic needs of plants <ul style="list-style-type: none"> • Air • Water • Sunlight • Space • Nutrients • Types of evidence <ul style="list-style-type: none"> • Direct (observable) • Indirect (inferred) • Possible examples may include: 				

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KINDERGARTEN		GRADE 1		GRADE 2	
	<ul style="list-style-type: none"> • Observations • Aquarium • Terrarium • Pets • House plants • Gardens 				
		<p>1.9B</p> <p>Analyze and record examples of interdependence found in various situations such as terrariums and aquariums or pet and caregiver.</p> <p>Analyze, Record</p> <p>EXAMPLES OF INTERDEPENDENCE FOUND IN VARIOUS SITUATIONS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Terrariums / aquariums • Pet and care giver • In an ecosystem • Types of interdependence (beneficial relationships between organisms) <ul style="list-style-type: none"> • Animals depend on plants <ul style="list-style-type: none"> • Food / nutrients • Air (oxygen) • Shelter • Animals depend on other animals <ul style="list-style-type: none"> • Food / nutrients • Plants depend on animals <ul style="list-style-type: none"> • Pollination (e.g., plants pollinated by bees) 			

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			<p>Note(s):</p> <ul style="list-style-type: none"> • STAAR: • Although not identified as a Supporting Standard, this student expectation builds the foundation for the content of standard 4.9A and Readiness Standard 5.9A. 		
				<p>2.9B</p> <p>Identify factors in the environment, including temperature and precipitation, that affect growth and behavior such as migration, hibernation, and dormancy of living things.</p> <p>Identify</p> <p>FACTORS IN THE ENVIRONMENT THAT AFFECT GROWTH AND BEHAVIOR OF LIVING THINGS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Factors affecting growth and behavior: <ul style="list-style-type: none"> • Temperature – a way of measuring how hot or cold something is; temperature is measured using either the Fahrenheit (°F) or Celsius (°C) scale • Effects of temperature change <ul style="list-style-type: none"> • Migration – to move from one place to another in search of food, water, or different temperatures • Hibernation – a deep sleep-like state of inactivity in animals in which body processes slow down 	

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KINDERGARTEN		GRADE 1		GRADE 2	
					<ul style="list-style-type: none"> • Dormancy – a phase of minimal activity (e.g., trees in winter, frogs in winter) • Precipitation – water that falls to the Earth’s surface as rain, snow, sleet, hail, or fog • Effects of quantity of precipitation <ul style="list-style-type: none"> • Migration • Dormancy <p>Note(s):</p> <ul style="list-style-type: none"> • STAAR: <ul style="list-style-type: none"> • Although not identified as a Supporting Standard, this student expectation builds the foundation for the content of Readiness Standard 5.9A.
		1.9C	<p>Gather evidence of interdependence among living organisms such as energy transfer through food chains or animals using plants for shelter.</p> <p>Gather</p> <p>EVIDENCE OF INTERDEPENDENCE AMONG LIVING ORGANISMS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Energy transfer through food chains (Sun to producer to consumer to consumer) • Food chain – a representation of the flow of energy from the Sun through producers to consumers in an environment 	2.9C	<p>Compare the ways living organisms depend on each other and on their environments such as through food chains.</p> <p>Compare</p> <p>WAYS LIVING ORGANISMS DEPEND ON EACH OTHER AND ON THEIR ENVIRONMENTS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Food chain – a representation of the flow of energy from the Sun through producers to consumers in an environment • Producer – an organism that makes its own food (e.g., plants) using

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			<ul style="list-style-type: none"> • Producer – an organism that makes its own food (e.g., plants) • Consumer – an organism that eats other organisms (plants and / or animals) for food • Animals use of plants for shelter • Trees for housing 		<p>energy (e.g., sunlight) and nutrients (e.g., water) from the environment</p> <ul style="list-style-type: none"> • Consumer – an organism that eats other organisms (plants and/or animals) for food <p>Note(s):</p> <ul style="list-style-type: none"> • STAAR: <ul style="list-style-type: none"> • Although not identified as a Supporting Standard, this student expectation builds the foundation for the content of Supporting Standard 3.9A.
K.10	<i>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:</i>	1.10	<i>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:</i>	2.10	<i>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:</i>
K.10A	<p>Sort plants and animals into groups based on physical characteristics such as color, size, body covering, or leaf shape.</p> <p>Sort</p> <p>PLANTS AND ANIMALS INTO GROUPS BASED ON PHYSICAL CHARACTERISTICS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Physical characteristics of plants and animals • Color • Size 	1.10A	<p>Investigate how the external characteristics of an animal are related to where it lives, how it moves, and what it eats.</p> <p>Investigate</p> <p>HOW EXTERNAL CHARACTERISTICS OF AN ANIMAL ARE RELATED TO ITS ENVIRONMENT</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • External characteristics / relationship to environment • Structures 	2.10A	<p>Observe, record, and compare how the physical characteristics and behaviors of animals help them meet their basic needs.</p> <p>Observe, Record, Compare</p> <p>HOW THE PHYSICAL CHARACTERISTICS AND BEHAVIORS OF ANIMALS HELP THEM MEET THEIR BASIC NEEDS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Physical characteristics help meet basic needs • Structures

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<ul style="list-style-type: none"> • Body covering (e.g., fur, skin, feathers, hair, scales) • Leaf shape 	<ul style="list-style-type: none"> • Long beak of a bird helps it reach nectar in a flower (what it eats) • Body coverings • Thick fur of a bear helps protect it from the cold (where it lives) • Appendages • Webbed feet of a duck provide movement and balance in the water (how it moves) 	<ul style="list-style-type: none"> • Fins (move, balance) • Coloration • Body coverings • Scales • Feathers • Behaviors help meet basic needs • Movement • Communication <p>Note(s):</p> <ul style="list-style-type: none"> • STAAR: <ul style="list-style-type: none"> • Although not identified as a Supporting Standard, this student expectation builds the foundation for the content of Readiness Standard 5.10A.
		<p>2.10B Observe, record, and compare how the physical characteristics of plants help them meet their basic needs such as how stems carry water throughout the plant.</p> <p>Observe, Record, Compare</p> <p>HOW THE PHYSICAL CHARACTERISTICS OF PLANTS HELP THEM MEET THEIR BASIC NEEDS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Physical characteristics help meet basic needs • Roots (take in water) • Stems (carry water throughout the plant)

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KINDERGARTEN		GRADE 1		GRADE 2	
					<ul style="list-style-type: none"> Leaves (make food) Flowers (make seeds) Fruit (holds seeds) Seeds (make new plants)
K.10B	<p>Identify basic parts of plants and animals.</p> <p>Identify</p> <p>PARTS OF PLANTS AND ANIMALS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> Plants <ul style="list-style-type: none"> Roots Stem Leaves Animals <ul style="list-style-type: none"> Head Eyes Limb 	1.10B	<p>Identify and compare the parts of plants.</p> <p>Identify, Compare</p> <p>PARTS OF PLANTS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> Parts of plants <ul style="list-style-type: none"> Roots Stems Leaves Flowers Fruit 		
K.10C	<p>Identify ways that young plants resemble the parent plant.</p> <p>Identify</p> <p>WAYS THAT YOUNG PLANTS RESEMBLE THE PARENT PLANT</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> Leaves Shape Color 	1.10C	<p>Compare ways that young animals resemble their parents.</p> <p>Compare</p> <p>WAYS THAT YOUNG ANIMALS RESEMBLE THEIR PARENTS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> Coloration patterns Limb number and structure Behaviors 		

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K.10D	<p>Observe changes that are part of a simple life cycle of a plant: seed, seedling, plant, flower, and fruit.</p> <p>Observe</p> <p>CHANGES THAT ARE PART OF A SIMPLE LIFE CYCLE OF A PLANT</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Life cycle – sequential stages of growth and development that an organism goes through in its lifetime • Plant life cycle <ul style="list-style-type: none"> • Seed • Seedling • Plant • Flower • Fruit 	<p>1.10D Observe and record life cycles of animals such as a chicken, frog, or fish.</p> <p>Observe, Record</p> <p>LIFE CYCLES OF ANIMALS</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Life cycle – sequential stages of growth and development that an organism goes through in its lifetime • Life cycles of animals <ul style="list-style-type: none"> • Chicken • Frog • Fish 	<p>2.10C Investigate and record some of the unique stages that insects such as grasshoppers and butterflies undergo during their life cycle.</p> <p>Investigate, Record</p> <p>SOME OF THE UNIQUE STAGES THAT INSECTS UNDERGO DURING THEIR LIFE CYCLE</p> <p>Including, but not limited to:</p> <ul style="list-style-type: none"> • Life cycle – sequential stages of growth and development that an organism goes through in its lifetime • Life cycles of insects <ul style="list-style-type: none"> • Grasshoppers <ul style="list-style-type: none"> • Egg • Nymph <ul style="list-style-type: none"> • Eating and growing stage • Molts several times before reaching the adult stage • Looks like a smaller version of the adult • Adult <ul style="list-style-type: none"> • May acquire wings that it lacked as a nymph • Insect has similar body parts throughout its development • Has three body sections, six legs, two antennae, and usually wings • There is one stage between the egg and the adult

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KINDERGARTEN	GRADE 1	GRADE 2
		<ul style="list-style-type: none"> • Butterflies • Egg • Larva (caterpillar) <ul style="list-style-type: none"> • Eating and growing stage • Pupa <ul style="list-style-type: none"> • Transforming stage • Adult <ul style="list-style-type: none"> • Has three body sections, six legs, two antennae and usually wings • There are two stages between the egg and adult • Other possible examples may include: <ul style="list-style-type: none"> • Moths • Beetles • Bees <p>Note(s):</p> <ul style="list-style-type: none"> • STAAR: <ul style="list-style-type: none"> • Although not identified as a Supporting Standard, this student expectation builds the foundation for the content of Supporting Standards 3.9B and 3.10B. • Specifically, third graders will predict changes in an environment where bees have been removed from a field. • According to Process Standard 2.2B, students are required to plan

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					and conduct simple descriptive investigations.

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