

Kindergarten Science Curriculum Map

Quarter 1

NGSSS Body of Knowledge	<i>Nature of Science/Life Science</i>	<i>Nature of Science/Life Science</i>	<i>Nature of Science/Life Science</i>	<i>Nature of Science/Life Science</i>	<i>Nature of Science/Life Science</i>	<i>Nature of Science/Life Science</i>	<i>Nature of Science/Life Science</i>
Unit of Study	Practice of Science	Practice of Science	Practice of Science	Practice of Science	Practice of Science	Practice of Science	Practice of Science
Target Standards	SC.K.N.1.1 : Collaborate with a partner to collect information.	SC.K.L.14.1 : Recognize the five senses and related body parts.	SC.K.L.14.1 : Recognize the five senses and related body parts.	SC.K.L.14.1 : Recognize the five senses and related body parts.	SC.K.L.14.1 : Recognize the five senses and related body parts.	SC.K.L.14.1 : Recognize the five senses and related body parts.	SC.K.N.1.2 : Make observations of the natural world and know that they are descriptors collected using the five senses. SC.K.N.1.5 : Recognize that learning can come from careful observation.
Pacing	Weeks 1-2	Week 3	Week 4	Week 5	Week 6	Week 7	Weeks 8-9
Objective/ Learning Goal/SWBT	<ul style="list-style-type: none"> * Discuss scientific tools (e.g., beaker, graduated cylinder, measuring cup, thermometer, hand lens, goggles) that scientists use to make their work easier. *Draw a picture of what a scientist looks like and present it to classmates and the teacher. *Collaborate with a partner to collect information from an activity. 	<ul style="list-style-type: none"> *Name sight as one of the five senses. *Identify that the eyes correspond to the sense of sight. *Describe objects by using the sense of sight only (color, shape, size). *Explore how light impacts sight. *Explore tools that scientists use to enhance, and sometimes hinder, the sense of sight for the purpose of protection (e.g., goggles, hand lens, microscope, glasses, sunglasses, binoculars). 	<ul style="list-style-type: none"> *Name touch as one of the five senses. *Identify that the fingers and skin correspond to the sense of touch. *Describe the feel (texture) of objects using the sense of touch (e.g., soft, hard, cold, warm, sticky, rough, smooth). *Determine a hidden object by its feel (e.g., feely box, feely socks, feely bag). *Explore tools that scientists use to reduce, and sometimes eliminate, the sense of touch for the purpose of protection. 	<ul style="list-style-type: none"> *Name hearing as one of the five senses. *Identify that the ears correspond to the sense of hearing. *Describe the sound an object can make. *Determine a mystery sound. *Determine the location of real-world sounds heard during a sound walk around the school campus. *Explore tools that reduce and enhance the sense of hearing. 	<ul style="list-style-type: none"> *Name smell as one of the five senses. *Identify that the nose corresponds to the sense of smell. *Use the proper technique for smelling substances (wafting). *Identify and describe the smell of different mystery substances. 	<ul style="list-style-type: none"> *Name taste as one of the five senses. *Identify that the tongue corresponds to the sense of taste. *Describe the taste of different substances (sour, sweet, bitter, salty). *Explore the relationship between smell and taste. 	<ul style="list-style-type: none"> *Explore basic science process skills with a partner that are important to a scientist through hands-on investigations. *Explore the hands-on use of science tools with a partner that help scientists gather information about the world around them. *Observe and describe familiar things from the natural world using the five senses. *Identify and describe the roles the senses play in a given situation. *Ask questions and find answers about the world around them using their five senses.
Inquiry Flipcharts/Labs	<ul style="list-style-type: none"> *Safety in Science p.1 *Lesson 1: What's in the Bag? TE p.13 				*Compare Sounds p.12		<ul style="list-style-type: none"> *Use Science Skills p.2 *Use Science Tools p.3
Fusion Textbook		TE p.8-15	TE p.8-15	TE p.8-15	TE p.8-15	TE p.8-15	TE p.16-31

Kindergarten Science Curriculum Map

Quarter 2					
NGSSS Body of Knowledge	<i>Nature of Science/Physical Science</i>	<i>Nature of Science/Physical Science</i>	<i>Nature of Science/Physical Science</i>	<i>Nature of Science/Physical Science/Earth Science</i>	<i>Nature of Science/Physical Science/Earth Science</i>
Unit of Study	Matter	Matter	Energy	Force and Motion	Force and Motion
Target Standards	<p>SC.K.P.8.1 : Sort objects by observable properties, such as size, shape, color, temperature (hot or cold), weight (heavy or light) and texture.</p> <p>SC.K.N.1.3 : Keep records as appropriate-such as pictorial records of investigations conducted.</p>	<p>SC.K.P.9.1 : Recognize that the shape of materials such as paper and clay can be changed by cutting, tearing, crumpling, smashing, or rolling.</p> <p>SC.K.N.1.4 : Observe and create a visual representation of an object which includes its major features.</p>	<p>SC.K.P.10.1 : Observe things that make sound vibrate.</p>	<p>SC.K.P.12.1 : Investigate that things move in different ways, such as fast, slow, etc.</p>	<p>SC.K.P.13.1 : Observe that a push or a pull can change the way an object is moving.</p>
Pacing	Weeks 10-12	Weeks 13-14	Week 15	Weeks 16-17	Week 18 (to 19)
Objective/ Learning Goal/SWBT	<ul style="list-style-type: none"> *Discuss types of observations scientists make (e.g., size, color, temperature, texture, time, quantity, changes to objects). *Discuss different ways scientists record their observations during investigations. *Describe objects by their observable properties after collaborating with a partner. *Sort objects according to an observable property comparing the quantity (more/less) in each group. *Re-sort the same objects according to a different observable property comparing the quantity (more/less) in each group. *Explain the reasoning of how objects have been sorted and re-sorted. *Estimate and compare the sizes of different objects (long/short, tall/short, wide/narrow, thick/thin, big/little). *Estimate and compare the weights of different objects (heavier/lighter) using their hands and a pan balance. *Estimate and compare the temperature of different objects through touch (hot/warm/cold). *Record predictions, observations and results of investigations in pictorial or written form. 	<ul style="list-style-type: none"> *Describe an object, including its major features, using as many of the five senses as possible. *Match a description of an object to its 2-dimensional or 3-dimensional visual representation (model). *Create a 2-dimensional or 3-dimensional model of an object using paper or clay. *Demonstrate multiple ways to change the shape and size of the paper or clay model. *Match altered forms of materials to their originals (e.g., ripped up pieces of paper to a full sheet, smashed piece of gum to a piece right out of the wrapper, liquid water to ice). *Explain that when these changes are made to paper and clay, only the shape or size of the material changes, not the material itself. *Demonstrate how other objects or substances change when heated or cooled (e.g., chocolate, water/ice, crayon). *Record observations of the object before and after change. 	<ul style="list-style-type: none"> *Distinguish soft sounds from loud sounds (e.g., ringing a bell and sounding a fire alarm, dropping a cotton ball and dropping a wooden block). *Observe that sounds are made when parts of musical objects vibrate (e.g., guitar strings, drums, musical triangles, xylophones, cymbals, tambourines). *Investigate other ways vibrations can be seen and felt. *Keep records of sound investigations. 	<ul style="list-style-type: none"> *Demonstrate and describe the different ways their bodies and other objects move (e.g., roll, fly, crawl, swim, bounce, hop, run, waddle, wiggle, sway, tumble, pounce, walk, jump, skip). *Describe the speed at which things move (fast and slow). *Investigate different directions of motion. *Record predictions, observations and results of movement investigations in pictorial or written form. *Describe what has been learned after carefully observing the movement of objects and hearing the observations of others. 	<ul style="list-style-type: none"> *Describe the position of an object (e.g., on, in, above, below, under, between, before, after, beside). *Collaborate with a partner to discuss ways to change an object's motion. *Demonstrate ways to make an object change position/move. *Predict how a push and pull will change an object's speed and/or direction. *Investigate how push and pull can change the speed or direction of an object's movement (fast, slow, back and forth, up and down). *Record predictions, observations and results of push and pull investigations in pictorial or written form. *Describe what has been learned after carefully observing the change in an object's motion and hearing the observations of others.
Inquiry Flipcharts/Labs	Compare Objects, p. 10	Tell Ways to Change Matter, p. 11 Lesson 16: Tell Ways to Change Objects, TE p. 169 Lesson 19: Observe How the Sun Changes Paper, TE p. 201	Compare Sounds, p. 12	Lesson 22: How Do Things Move?, TE p. 237	
Fusion Textbook	p.154-163	p.164-179	p.188-195	p.222-239	p.240-255

Kindergarten Science Curriculum Map

Quarter 3						
NGSS Body of Knowledge	<i>Nature of Science/Physical Science/Earth Science</i>	<i>Nature of Science/Physical Science/Earth Science</i>	<i>Nature of Science/Earth and Space Science</i>	<i>Nature of Science/Earth and Space Science</i>	<i>Nature of Science/Earth and Space Science</i>	<i>Nature of Science/Life Science</i>
Unit of Study	Force and Motion	Force and Motion	Day and Night Sky	Day and Night Sky	Day and Night Sky	Animals and Plants
Target Standards	SC.K.P.13.1 : Observe that a push or a pull can change the way an object is moving.	SC.K.E.5.1 : Explore the Law of Gravity by investigating how objects are pulled toward the ground unless something holds them up.	SC.K.E.5.2 : Recognize the repeating pattern of day and night.	SC.K.E.5.3 : Recognize that the Sun can only be seen in the daytime. SC.K.E.5.4 : Observe that sometimes the Moon can be seen at night and sometimes during the day.	SC.K.E.5.5 : Observe that things can be big and things can be small as seen from Earth. SC.K.E.5.6 : Observe that some objects are far away and some are nearby as seen from Earth.	SC.K.L.14.3 : Observe animals, describe how they are alike and how they are different in the way they look and in the things they do.
Pacing	Week 19 (continued from week 18)	Week 20	Weeks 21-22	Weeks 21-22	Weeks 23-24	Weeks 25-27
Objective/ Learning Goal/SWBT	<ul style="list-style-type: none"> *Describe the position of an object (e.g., on, in, above, below, under, between, before, after, beside). *Collaborate with a partner to discuss ways to change an object's motion. *Demonstrate ways to make an object change position/move. *Predict how a push and pull will change an object's speed and/or direction. *Investigate how push and pull can change the speed or direction of an object's movement (fast, slow, back and forth, up and down). *Record predictions, observations and results of push and pull investigations in pictorial or written form. *Describe what has been learned after carefully observing the change in an object's motion and hearing the observations of others. 	<ul style="list-style-type: none"> *Predict what will happen to objects when supports that are holding them up are removed. *Collaborate as a class about how to collect data during a gravity investigation. *Investigate how objects are pulled toward the ground unless something holds them up. *Record predictions, observations and results of a gravity investigation in pictorial or written form. *Identify gravity as the reason objects are pulled toward the ground (fall) when they are not held up by something. *Describe what has been learned after carefully observing the effects of gravity and hearing the observations of others. 	<ul style="list-style-type: none"> *Identify activities that are done during the day. *Identify activities that are done during the night. *Explain how daytime activities are different from nighttime activities. *Identify details in nature that make day different from night. *Create 2-dimensional and 3-dimensional models of things that are visible in the day and/or night sky. *Describe the repeating pattern of day and night. 	<ul style="list-style-type: none"> *Identify and describe the sun. *Describe attributes that define daytime (with the sun as the primary detail). *Identify how the sun appears to rise at dawn, move across the sky during the day, and set at dusk. *Identify and describe the moon. *Describe attributes that define nighttime (with the moon as a primary detail). *Describe how the moon appears to change shape and brightness. *Observe and discuss how sometimes the moon can be seen during the day while the sun is out. 	<ul style="list-style-type: none"> *Compare the size of an object on the ground to one seen in the sky (e.g., airplane, hot air balloon, parachute, bird, kite). *Explain how the object looks smaller in the sky even though it does not change in size. *Discuss how objects appear to get smaller the farther away they get and larger the closer they get. *Make observations of objects found in space (sun, moon, and stars). *Compare the apparent size of stars to the apparent size of the sun and moon as seen from Earth. *Explain the distance of some objects in the day and night sky in relation to Earth (stars are farther away from Earth than the sun and moon). *Explain that the moon looks larger than the stars because it is closer to Earth (nearby) even though it is not larger and vice versa (far away). *Explain that the sun looks larger than the other stars because it is closer to Earth (nearby) even though it is smaller than some of the other stars and vice versa (far away). 	<ul style="list-style-type: none"> *Record observations of many kinds of animals. *Identify differences between different kinds of animals (e.g., some have feathers and some have fur, some lay eggs and some give live birth). *Identify similarities among different kinds of animals (e.g., they all swim, they all have six legs). *Sort animals by the way they look (e.g., fur, scales, feathers, fins, feet). *Sort animals by the way they move (e.g., fly, swim, slither, crawl, walk, hop). *Create a 2-dimensional and/or 3-dimensional model of an animal and its features. *Observe and explain that animals grow and change as they get older. *Discuss the needs of animals (food, water, air, space and shelter).
Inquiry Flipcharts/ Labs		Make Predictions About Gravity, p. 14	Compare Day and Night Sky, p. 9 Observe How the Sun Changes Paper, p. 13 Lesson 13: How Does the Day Sky Change?, TE p. 135	Compare Day and Night Sky, p. 9 Observe How the Sun Changes Paper, p. 13 Lesson 13: How Does the Day Sky Change?, TE p. 135		Sort Animals, p. 5

Kindergarten Science Curriculum Map

Fusion Textbook	p.240-255	TE p.243	p.130-137, 138-145	p.130-137, 138-145	TE p.133	p.56-81
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Quarter 4			
NGSSS Body of Knowledge	<i>Nature of Science/Life Science</i>	<i>Nature of Science/Life Science</i>	<i>Nature of Science/Life Science</i>
Unit of Study	Animals and Plants	Animals and Plants	Animals and Plants
Target Standards	SC.K.L.14.3 : Observe plants, describe how they are alike and how they are different in the way they look and in the things they do.	SC.K.L.14.3 : Observe plants, describe how they are alike and how they are different in the way they look and in the things they do.	SC.K.L.14.2 : Recognize that some books and other media portray animals and plants with characteristics and behaviors they do not have in real life.
Pacing	Weeks 29-31	Weeks 32-34	Weeks 35-36
Objective/ Learning Goal/SWBT	<ul style="list-style-type: none"> *Record observations of many kinds of plants (flowers, trees, grass, cactus, bushes, fern). *Observe the parts of a plant using a hand lens (stems, roots, leaves, flowers, seeds, cones). *Identify differences between different kinds of plants (e.g., some have cones and some have flowers, some have thin leaves and some have thick leaves). *Identify similarities among different kinds of plants (e.g., they have oval-shaped leaves, they produce flowers, they change size). *Sort plants by the way they look (e.g., leaf shape, size, color, other attributes). *Create a 2-dimensional and/or 3-dimensional model of a plant and its parts. *Observe and explain that plants grow and change as they get older. *Discuss the needs of plants (water, soil, light, air, space). 	<ul style="list-style-type: none"> *Describe how a plant and an animal are alike (physical characteristics, basic needs, and growth/change). *Describe how a plant and an animal are different (physical characteristics, basic needs, and growth/change). 	<ul style="list-style-type: none"> *Identify characteristics and behaviors of plants and animals shown in books and other media as real or imaginary. *Discuss how plant characteristics and behaviors shown in books and other media are alike and different from the characteristics of a real plant (e.g., has green leaves, grew from a seed, grew to the clouds, talks to another oak tree). *Discuss how animal characteristics and behaviors shown in books and other media are alike and different from the characteristics of a real animal (e.g., has two wings, eats nuts, sings a song, goes to school to learn).
Inquiry Flipcharts/ Labs	Observe a Plant's Needs, p. 6 Compare Plant Parts, p.7		
Fusion Textbook	p.90-121		p.48-55