School District	Subject	Grade Level		
Fowler	**Science**	**3rd**		
Quarter 1				
Content/Resources	*Skills*	*Additional resources/Related Skills*	*Vocabulary*	*Assessment*
The following Science Strands should be taught in an order that best meets your students' needs. **Textbook:** **Inspire Science Grade 3** **Beginning of the year Scientific Method** Suggested resources: • https://jr.brainpop.com/ (Subscription Required) • Model note taking using thinking charts and 2-column notes **Google drive link to additional activities:** **Folder: 3rd Grade Science Bonus Activities** **https://drive.google.com/drive/folders/1swXJiUmObZaudr9zoZZgVOyghoQHufbI?usp=sharing** ** Disclaimer- Unit 1 was moved to quarter four **Unit 2: Life Cycles and Traits** **3.L1U1.5 Develop and use models to explain that plants and animals (including humans) have internal and external structures that serve various functions that aid in growth, survival, behavior, and reproduction.** **3.L2U1.6 Plan and carry out investigations to demonstrate ways plants and animals react to stimuli.** **3.L2U1.7 Develop and use system models to describe the flow of energy from the Sun to and among living organisms.** **3.L2U1.8 Construct an argument from evidence that organisms are interdependent.** **Standard 1** EL.2-3.S1.I-1 I will Ask and answer questions about key details that support the main idea by using evidence from a text.	**Beginning of the year:** We all know that in order for experiments to be successful and valuable, students need to understand the scientific method. They need to have a good understanding of each step in the process. **SWBAT:** 1. analyze results in an experiment using the scientific method (observation, problem, hypothesis, experiment, results and conclusion). 2. form a hypothesis to a given scientific experiment. 3. collect and analyze data.	**Beginning of the year:** https://www.youtube.com/watch?v=qAJ8IF4HI20 http://studyjams.scholastic.com/studyjams/jams/science/scientific-inquiry/scientific-methods.htm https://www.sciencebuddies.org/teacher-resources/lesson-plans/teach-scientific-method **Scientific Method Activities:** https://drive.google.com/drive/folders/19KuA9ThlqHz2tKDCjT8iXIKKqYJFe0xS?usp=sharing Plant Adaptations with investigations https://mysteryscience.com/plants/plant-adaptations Plant structures and functions https://az.pbslearningmedia.org/resource/5dea21b4-6c92-46ff-982c-8650f9429c01/think-garden-plant-structure/ Plant Reproduction https://study.com/academy/lesson/plant-reproduction-lesson-for-kids.html	**Beginning of the year:** Scientific method Experiment Results Conclusion observation problem hypothesis Control variable	**Suggested Assessment** Brain pop Quiz **Pre-Assessment McGraw-Hill Module Pretest** **Formative Assessment-McGraw-Hill** **Claim-evidence-Reasoning** **Three-Dimensional Thinking questions** **Talk About it - Inquiry Activities** **Quick Check** **Page Keeley -Science Probes** **Summative Assessment-McGraw-Hill** **Lesson Reviews** **Lessons Checks**

Standard 2 EL.2-3.S2.I-1 I will determine the meaning of less-frequently occurring words and phrases and content specific words. **Standard 3** EL.2-3.S3.I-1 I will deliver oral presentations that include details and examples to develop a topic. **Standard 4** I will supply a reason that supports the opinion and is based on more detailed textual evidence and relevant background knowledge. **Standard 6** EL.2-3.S6.I-1 I will participate in extended conversations and discussions about a variety of topics and texts. EL.2-3.S6.I-3 I will express own ideas using the rules for discussion. EL.2-3.S6.I-4 I will pose and respond to relevant questions about a variety of topics and texts. **Standard 7** EL.2-3.S7.I-2 I will respond to a question or problem based on gathered information from multiple (personal experience, digital, and print) sources. **Standard 8** EL.2-3.S8.I-1 I will explain how an author or speaker uses reasons and evidence to support or fail to support specific points. EL.2-3.S8.I-2 I will ask and answer yes-no, either-or, and wh- questions in order to clarify what an author or speaker says. **Standard 9** EL.2-3.S9.I-2 I will apply increasing understanding of how ideas, events,or reasons are linked throughout a text by using grade-appropriate linking words and temporal words when writing and speaking. **Module: Plants** **Lesson 1: Plant Life Cycle** **LS1-1** Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death	**Big Idea:** How do plants grow, develop, and reproduce? **Lesson 1:** SWBAT develop and use models to describe patterns in plant life cycles.	**Clarification statement:** Changes organisms go through during their life form a pattern.	**Lesson 1** germinate, life cycle, pollination, reproduce	**Module Test** **Vocabulary Check** **STEM Module Project**

Essential Question: How do plants grow and develop? **Lesson 2: Plant Traits** **LS3-1** Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms. **LS4-2** Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding, mates, and reproducing. **Essential Question:** How are plants similar and different from their parents?	**Lesson 2:** SWBAT explain patterns in the inheritance of traits by plants and how variations provide plants advantages for survival.	**Clarification statement:** Patterns are the similarities and differences in traits shared between offspring and their parents, or among siblings. Emphasis mechanisms of inheritance and prediction of traits. **Clarification statement:** Examples of cause and effect relationships could be plants that have larger thorns than other plants may be less likely to be eaten by predators; and animals that have better camouflage coloration that other animals may be more likely to survive and therefore more likely to leave offspring.	**Lesson 2** inherited trait, trait, variation	
Module: Animals **Lesson 1:Animal Life Cycles** **LS1-1** Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death **Essential Question:** How do animals grow and develop?	**Big Idea:** **How do animals live, grow, and survive?** **Lesson 1: Animal Life Cycles** SWBAT use models to describe patterns in animal life cycles.	Animal Adaptations Reading with Experiments http://adventisteducationbydesign.com/wp-content/themes/bydesign/assets/downloads/sample_lessons/student_editions/KH_BD1_SEGradeLevel4_U1C02_L02.pdf Animal Adaptations https://www.slideshare.net/PinebrookPumas/animal-adaptations-introduction Animals http://interactivesites.weebly.com/animal-adaptations.html	**Lesson 1** birth, metamorphosis	
Lesson 2:Animal Traits **LS3-1** Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms. **LS4-2** Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding, mates, and reproducing. **Essential Question:** How are animals similar and different from their parents and siblings?	**Lesson 2: Animal Traits** SWBAT explain patterns in the inheritance of traits by animals, and how variations provide animals advantages for survival.	**Clarification statement:** Changes organisms go through during their life form a pattern. **Clarification statement:** Patterns are the similarities and differences in traits shared between offspring and their parents or among siblings. Emphasis is on organisms other than humans.	**Lesson 2** environmental trait, instinct, learned trait	

Lesson 3: Animal Group Survival **LS2-1** Construct an argument that some animals form groups that help members survive. **Essential Question:** How does living in a group help some animals survive better?	**Lesson 3:** SWBAT use what they have learned throughout the module to design a habitat for a new animal at a zoo.	**Clarification statement:** Examples of cause and effect relationships could be plants that have larger thorns than other plants may be less likely to be eaten by predators; and, animals that have better camouflage coloration than other animals may be more likely to survive and therefore more likely to leave offspring.	**Lesson 3** group, population, survive	
Quarter 2				
Content/Resources	*Skills*	*Additional Resources/Related Skills*	*Vocabulary*	*Assessment*
Unit 3 Different Environments **3.L1U1.5 Develop and use models to explain that plants and animals (including humans) have internal and external structures that serve various functions that aid in growth, survival, behavior, and reproduction.** **3.L2U1.6 Plan and carry out investigations to demonstrate ways plants and animals react to stimuli.** **3.L2U1.7 Develop and use system models to describe the flow of energy from the Sun to and among living organisms.** **3.L2U1.8 Construct an argument from evidence that organisms are interdependent.** **Standard 2** EL.2-3.S2.I-1 I will determine the meaning of less-frequently occurring words and phrases and content specific words. **Standard 4** EL.2-3.S4.I-2 I will supply a reason that supports the opinion and is based on more detailed textual evidence and relevant background knowledge. **Standard 5** EL.2-3.S5.I-2 I will use grade appropriate general academic and domain-specific words and phrases, including adjectives, adverbs, and appropriate transition words.				**Pre-Assessment McGraw-Hill Module Pretest Formative Assessment-McGraw-Hill** **Claim-evidence-Reasoning Three-Dimensional Thinking questions Talk About it - Inquiry Activities Quick Check Page Keeley -Science Probes** **Summative Assessment-McGraw-Hill Lesson Reviews Lessons Checks Module Test Vocabulary Check STEM Module Project**

Standard 6 EL.2-3.S6.I-1 I will participate in extended conversations and discussions about a variety of topics and texts. EL.2-3.S6.I-4 I will pose and respond to relevant questions about a variety of topics and texts. **Standard 7** EL.2-3.S7.I-1 I will gather information from print and digital provided sources to answer questions. EL.2-3.S7.I-2 I will respond to a question or problem based on gathered information from multiple (personal experience, digital, and print) sources. **Standard 8** EL.2-3.S8.I-1 I will explain how an author or speaker uses reasons and evidence to support or fail to support specific points. EL.2-3.S8.I-2 I will ask and answer yes-no, either-or, and wh- questions in order to clarify what an author or speaker says. **Standard 9** EL.2-3.S9.I-2 I will apply increasing understanding of how ideas, events,or reasons are linked throughout a text by using grade-appropriate linking words and temporal words when writing and speaking. **Module: Survive the Environment** **Lesson 1: Survive the Environment** **LS3-2** Use evidence to support the explanation that traits can be influenced by the environment. **Essential Questions:** What do organisms need to survive? **Lesson 2: Adaptations and Variations** **LS4-3** Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.	**Big Idea:** How do some organisms survive in some environments but others cannot? **Lesson 1: Survival Organisms** SWBAT use evidence to explain what causes organisms to survive in their environment. **Lesson 2: Adaptations and Variations** STWBAT argue from evidence that some animals survive better in certain environments than others.	**Clarification statement:** Examples of the environment affecting a trait could include normally tall plants grown with insufficient water are stunted; and, a pet dog that is given too much food and little exercise may become overweight. **Clarification statement:** Examples of evidence could include needs and characteristics of the organisms and habitats involved. The organisms and their habitat make up a system in which the parts depend on each other.	**Lesson 1** competition, ecosystem, resource **Lesson 2** adaptation, behavior, camouflage, hibernation,	

Essential Questions: How do organisms survive in their environments? **Module: Change the Environment** **Lesson 1: Fossils** **LS4-1** Analyze and interpret data from fossils to provide evidence of the organisms and the environments in which they lived long ago. **LS4-3** Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all. **Essential Questions:** What do fossils tell us about the environment? **Lesson 2: Changes Affect Organisms** **LS4-4** Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change. **Essential Questions:** How does a changing environment affect organisms?	**Big Idea:** How do changes in the ecosystem affect the organisms that live there? **Lesson 1: Fossils** STWBAT analyze and interpret data about fossils to provide evidence about where they lived long ago. **Lesson 2: Changes Affect Organisms** STWBAT explain changes to the environment and how those changes affect living things.	**Clarification statement:** Examples of data could include type, size, and distributions of fossil organisms. Examples of fossils and environments could include marine fossils found on dry land, tropical plant fossils found in Arctic areas, adn fossils of extinct organisms. **Clarification statement:** Examples of evidence could include needs and characteristics of the organisms and habitats involved. The organisms and their habitat make up a system in which the parts depend on each other. **Clarification statement:** Examples of environmental changes could include changes in land characteristics, water distribution, temperature, food, and other organisms.	migrate, mimicry **Lesson 1** extinction fossils **Lesson 2** invasive species	
Quarter 3				
Content/Resources	*Skills*	*Additional Resources/Related Skills*	*Vocabulary*	*Assessment*
Unit 4 Observing Weather **3.P2U1.1 Ask questions and investigate the relationship between light, objects, and the human eye.** **3.P2U1.2 Plan and carry out an investigation to explore how sound waves affect objects at varying distances.** **3.P4U1.3 Develop and use models to describe how light and sound waves transfer energy.**		Water/Weather https://mysteryscience.com/weather/weather-climate Temperature: http://interactivesites.weebly.com/temperature.html Weather http://www.sciencekids.co.nz/videos/weather.html Weathering and Erosion:		**Pre-Assessment McGraw-Hill Module Pretest** **Formative Assessment-McGraw-Hill** **Claim-evidence-Reasoning Three-Dimensional Thinking questions**

3.E1U1.4 Construct an explanation describing how the Sun is the primary source of energy impacting Earth systems. **Standard 1** EL.2-3.S1.I-1 I will Ask and answer questions about key details that support the main idea by using evidence from a text. **Standard 4** I will supply a reason that supports the opinion and is based on more detailed textual evidence and relevant background knowledge. **Standard 6** EL.2-3.S6.I-1 I will participate in extended conversations and discussions about a variety of topics and texts. EL.2-3.S6.I-3 I will express own ideas using the rules for discussion. EL.2-3.S6.I-4 I will pose and respond to relevant questions about a variety of topics and texts. **Standard 7** EL.2-3.S7.I-2 I will respond to a question or problem based on gathered information from multiple (personal experience, digital, and print) sources. **Standard 8** EL.2-3.S8.I-2 I will ask and answer yes-no, either-or, and wh- questions in order to clarify what an author or speaker says. **Standard 9** EL.2-3.S9.I-2 I will apply increasing understanding of how ideas, events,or reasons are linked throughout a text by using grade-appropriate linking words and temporal words when writing and speaking. **Module: Weather Impacts** In this module students will explore different types of weather and climate, along with natural hazards and how to prepare for them. **Lesson 1: Weather Patterns** **ESS2-1** **Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season.**	**Big Idea:** How does weather change, and how can natural hazards change environments? **Lesson 1: Weather Patterns** STWBAT analyze and interpret date to describe different weather patterns.	http://interactivesites.weebly.com/erosion-and-weathering.html Earth http://interactivesites.weebly.com/earths-structure.html Earth's Spheres: https://www.generationgenius.com/earths-spheres-for-kids/ Water/Weather https://mysteryscience.com/weather/weather-climate	**Lesson 1** atmosphere, precipitation, temperature, weather	**Talk About it - Inquiry Activities** **Quick Check** **Page Keeley -Science Probes** **Summative Assessment-McGraw-Hill** **Lesson Reviews** **Lessons Checks** **Module Test** **Vocabulary Check** **STEM Module Project**

Essential Questions: How does the weather change? **Lesson 2: Weather and Seasons** **ESS2-1** Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season. **ESS2-2** Obtain and combine information to describe climates in different regions of the world. **Essential Questions:** How does the weather in the United States compare to other parts of the world?	**Lesson 2: Weather and Seasons** STWBAT obtain and combine information to describe climate in different regions.	**Clarification statement:** Examples of data could include average temperature, precipitation, and wind direction.	**Lesson 2** axis, climate, season	
Lesson 3: Natural Hazards and the Environment **ESS2-2** Obtain and combine information to describe climates in different regions of the world. **ESS3-1** Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard. **Essential Questions:** How do natural hazards affect environments?	**Lesson 3: Natural Hazards and the Environment** STWBAT use evidence to describe how natural hazards affect environments, and identify ways to reduce damage from natural disasters.	.	**Lesson 3** natural hazards	
Lesson 4: Prepare for Natural Hazards **ESS3-1** Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard. **5ETS1-1** Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time or cost. **5-ETS1-2** Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. **Essential Questions:** How can we prepare for natural hazards?	**Lesson 4: Prepare for Natural Hazards** STWBAT design and compare models to explain how to reduce the impact of natural hazards.	**Clarification statement:** Examples of design solutions to weather-related hazards could include barriers to prevent flooding, wind resistant roofs, and lighting rods.	**Lesson 4** floodwall, levee, lightning rod	

Quarter 4				
Content/Resources	*Skills*	*Additional Resources/Related Skills*	*Vocabulary*	*Assessment*
Unit 1: Forces Around Us **3.P2U1.1 Ask questions and investigate the relationship between light, objects, and the human eye.** **3.P2U1.2 Plan and carry out an investigation to explore how sound waves affect objects at varying distances.** **3.P4U1.3 Develop and use models to describe how light and sound waves transfer energy.** **Standard 1** EL.2-3.S1.I-1 I will Ask and answer questions about key details that support the main idea by using evidence from a text. **Standard 2** EL.2-3.S2.I-1 I will determine the meaning of less-frequently occurring words and phrases and content specific words. **Standard 6** EL.2-3.S6.I-1 I will participate in extended conversations and discussions about a variety of topics and texts. EL.2-3.S6.I-3 I will express own ideas using the rules for discussion. EL.2-3.S6.I-4 I will pose and respond to relevant questions about a variety of topics and texts. **Standard 7** EL.2-3.S7.I-2 I will respond to a question or problem based on gathered information from multiple (personal experience, digital, and print) sources. **Standard 9** EL.2-3.S9.I-2 I will apply increasing understanding of how ideas, events,or reasons are linked throughout a text by using grade-appropriate linking words and temporal words when writing and speaking.		**Forces and Motion:** Energy Transfer- Lesson and Activity(Need to set up trial account) https://www.generationgenius.com/videolessons/energy-transfer-video-for-kids/ **Energy:** Energy Bill Nye the Science Guy (30 minutes) https://youtu.be/8qmSzMwTkpk Where does energy come from? https://mysteryscience.com/energy/mystery-8/energy-resources-environmental-impacts/269?r=12927635#slide-id-0 **Light:** Simple Activities for Reflection and Refraction https://buggyandbuddy.com/light-experiments-for-kids/ **Sound:** What is sound video (4 minutes) https://youtu.be/3-xKZKxXuu0 Sound Vibrations https://mysteryscience.com/waves/mystery-3/sound-vibrations-waves/52?r=508106&s=social:pinterest How far can a whisper travel? https://mysteryscience.com/waves/mystery-1/sound-vibrations/50?r=12927635 Unit How Sound Works https://mysteryscience.com/waves/sound-waves-communication https://az.pbslearningmedia.org/resource/phy03.sci.phys.howmove.lp_sound/sound-vibrations/ How sound travels through liquids, solid, gas https://www.teachengineering.org/activities/view/cub_energy2_lesson05_activity2		**Pre-Assessment McGraw-Hill Module Pretest** **Formative Assessment-McGraw-Hill** **Claim-evidence-Reasoning** **Three-Dimensional Thinking questions** **Talk About it - Inquiry Activities** **Quick Check** **Page Keeley -Science Probes** **Summative Assessment-McGraw-Hill** **Lesson Reviews** **Lessons Checks** **Module Test** **Vocabulary Check** **STEM Module Project**

Module: Forces and Motion **What is the relationship between force and motion?** In this module, students will consider how the different types of forces can cause different types of motion. **Lesson 1: Motion** **Essential Question:** **What are the patterns of motion?** **PS2-2** Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion. **Lesson 2: Forces Can Change Motion** **Essential Question:** **What happens when an object is pushed or pulled?** **PS2-1** Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object. **Module: Electricity and Magnetism** In this module students will consider how magnets and electricity can be used to move objects. **Lesson 1: Electricity and Designing Solutions** **PS2-3** Ask questions to determine cause and effect relationships of electric or magnetic interactions between two objects not in contact with each other. **Essential Question:** How does electricity affect an object's motion? **Lesson 2: Magnetism and Designing Solutions** **PS2-3** Ask questions to determine cause and effect relationships of electric or magnetic interactions between two objects not in contact with each other. &	**Big Idea:** What is the relationship between force and motion? **Lesson 1: Motion** SWBAT create a model to show knowledge of patterns of motion. **Lesson 2: Forces can change Motion** SWBAT understand that when a force is applied to an object, its motion changes. **Big Idea:** How can some objects push or pull one another without even touching? **Lesson 1: Electricity and Designing Solutions** SWBAT ask questions that can be investigated to explore the effects of static electricity on objects.	Phases of Matter Bill Nye the Science Guy (31 minutes) https://youtu.be/k3SJuozgbfU Measuring Matter Tim and Moby (4 minutes) https://youtu.be/AXrmqReUHgY Physical and Chemical Changes (5 minutes) https://youtu.be/x49BtB5dOwg **Clarification statement:** Examples of motion with a predictable pattern could include a child swinging in a swing, a ball rolling include technical terms such as period and frequency. **Clarification statement:** Examples could include an unbalanced force on one side of a ball can make it start moving, and balanced forces pushing on a box from both sides will not produce any motion at all. **Clarification statement:** Examples of an electric force could include the force on hair from an electrically charged balloon and the electrical forces between a charged rod and pieces of paper. Examples of a magnetic force could include the force between two permanent magnets, the force exerted by two magnets. Examples of cause and effect relationship could include how the distance between objects affects strength of the force and how the orientation of magnets affects the direction of the magnetic force. **Clarification statement:** Examples of problems could include constructing a latch to keep a door shut and creating a device to keep two moving objects from touching each other.	**Lesson 1** Direction, distance, motion, position, speed **Lesson 2** balanced forces, force, friction, unbalanced forces **Lesson 1** attract, electrical charge, repel, static electricity **Lesson 2** magnet, magnetic field, magnetism, pole	

PS2-4 Define a simple design problem that can be solved by applying scientific ideas about magnets. **Essential Question:** How do magnets affect an object's motion?	**Lesson 2: Magnetism and Designing Solutions** SWBAT explain how magnetic forces can be used in designing solutions to problems.			