Third Grade Science Curriculum 2022

Pacing Guide	Standard Code & Indicator	Sample Learning Activities	Sample Assessments	Additional Standards

August/ September	3-5-ETS1-1 Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.	Identify the types of questions scientists ask and will apply this knowledge to ask scientific questions.	**Formative Assessments:** Quiz Classwork Teacher Observation	**Interdisciplinary Standard:** RI.3.5 Read and complete a chart on text features
Engineering and Design		Observe, predict, measure, interpret data, and use other process skills to plan and conduct investigations.	**Summative Assessment:** Project/Lab Egg Drop Can You Hear Me? Chapter Test	**Technology Standard:** 8.2.5.ED.2: Collaborate with peers to collect information, brainstorm to solve a problem, and evaluate all possible solutions to provide the best results with supporting sketches or models.
	3-5-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.	Analyze how scientists use experiments and conduct investigations to answer questions.	**Benchmark Assessment:** BOY Benchmark	
	3-5-ETS1-3 Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.	Conduct an investigation, gather information, and communicate the results of the investigation to others.	Accommodations and Modifications	
		Communicate how scientists use tools and stay safe while conducting investigations.		
		Identify design problems that can be solved using technology.		
		Model to identify some simple and complex machines and will communicate how these machines help people do work.		
		Communicate how to conduct an investigation using the design process.		
		Instructional Resources *National Geographic Science*		

| October/ November

Motion and Stability: Forces and Interactions | 3-PS2-1 Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object.

3-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.

3-PS2-3 Ask questions to determine cause and effect relationships of electric or magnetic interactions between two objects not in contact with each other.

3-PS2-4 Define a simple design problem that can be solved by applying scientific ideas about magnets. | Explore: balanced vs unbalanced forces

Plan for and carry out an investigation to prove the effects of balanced/unbalanced forces on the motion of an object

Explore: patterns within motion

Observe an object's motion to identify evidence that its future motion can be predicted

Observe and discuss: an item at rest

Define, identify and explore : electric and magnetic forces

Explore, identify and predict cause/effect relationships

Understand that the size of the forces depend on the properties of the objects and their distances apart

Design a solution that can help solve a problem using magnets

Instructional Resources
National Geographic Science

Student Technology:
Google Classroom
Chromebook/ IPad | **Formative Assessments:**
Quiz
Classwork
Teacher Observation

Summative Assessment:
Chapter Test
Solution Design

Accommodations and Modifications | **Interdisciplinary Standard:**
3.MDA.1 Students will solve word problems to find an object's speed

Technology Standard:
8.2.5.ED.2: Collaborate with peers to collect information, brainstorm to solve a problem, and evaluate all possible solutions to provide the best results with supporting sketches or models. |

December	3-LS1-1 Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.	Classify plants into major groups, such as flowering and nonflowering plants, based on physical characteristics.	**Formative Assessments:** Plants Quiz Classwork Teacher Observation	**Interdisciplinary Standard:** W 3.2 Students will write to describe how plants change during their lifestyle using academic vocabulary and transitions
From Molecules to Organisms: Structures and Processes		Develop models that describe how leaves help plants in their life cycles. Use models that describe how roots and stems help plants in their life cycles. Communicate how plants reproduce using seeds and cones. Develop and use models to describe how plants change during their life cycles. **Instructional Resources** *National Geographic Science* **Student Technology:** Google Classroom Chromebook/ IPad **Teacher Technology:** Promethean Board/Activ Panel YouTube Videos ActiView Scholastic BrainPop Bill Nye Video	**Summative Assessment:** Project/Labs Chapter Test Life Cycle Writing Accommodations and Modifications	**Technology Standard:** 8.2.5.ED.2: Collaborate with peers to collect information, brainstorm to solve a problem, and evaluate all possible solutions to provide the best results with supporting sketches or models.

January		Classify animals into major groups based on inherited traits and behavior.	Formative Assessments:	Interdisciplinary Standard:
Heredity: Inheritance and Variation of Traits	**3-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. **3-LS3-2** Use evidence to support the explanation that traits can be influenced by the environment.	Use observations and evidence to explain that some traits are inherited and some traits are learned or acquired. Develop and use models to describe how some animals grow and change during their life cycles Research to provide evidence that traits can be influenced by the environment **Instructional Resources** *National Geographic Science* **Student Technology:** Google Classroom Chromebook/ IPad **Teacher Technology:** Promethean Board/Activ Panel YouTube Videos ActiView Scholastic BrainPop Bill Nye Video	Traits Quiz Classwork Teacher Observation **Summative Assessment:** Project/Labs Chapter Test Completed research Accommodations and Modifications	**RI 3.1** Students will conduct research on plants/animals and their traits **Technology Standard:** 8.2.5.ED.2: Collaborate with peers to collect information, brainstorm to solve a problem, and evaluate all possible solutions to provide the best results with supporting sketches or models.

February	3-LS2-1 Construct an argument that some animals form groups that help members survive.	Analyze how living and nonliving things interact within an ecosystem. Determine why animals form groups Research and present on animal groups that form groups **Instructional Resources** *National Geographic Science* **Student Technology:** Google Classroom Chromebook/ IPad **Teacher Technology:** Promethean Board/Activ Panel YouTube Videos ActiView Scholastic BrainPop Bill Nye Video	**Formative Assessments:** Quiz Classwork Teacher Observation **Summative Assessment:** Project/Labs Chapter Test Accommodations and Modifications	**Interdisciplinary Standard:** W 3.2 Students write an informative paragraph on animal groups and their purpose **Technology Standard:** 8.1.5.DA.3: Organize and present collected data visually to communicate insights gained from different views of the data.
Ecosystems: Interactions, Energy, Dynamics				

March-April	3-LS4-1 Analyze and interpret data from fossils to provide evidence of the organisms and the environments in which they lived long ago.	Examine and explore: fossils	Formative Assessments: Fossils Quiz Classwork Teacher Observation	Interdisciplinary Standard: L 3.2D When writing about a plant/animal's traits, students will correctly use possessives
Biological Evolution Unity and Diversity	3-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.	Identify information that fossils can provide us Collect and analyze data from fossils in regards to the environment in which they lived.	Summative Assessment: Project/Labs Species Creation	Technology Standard: 8.1.5.DA.1: Collect, organize, and display data in order to highlight relationships or support a claim.
	3-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.	Determine cause/effect relationships between plants or animals and their ability to survive Research plants/animals and the characteristics that allow them to survive	Accommodations and Modifications	
	3-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.	Create own species of a plant/animal fit to survive in their provided environment Identify common environmental changes due to climate change Analyze climate changes and its impact on plants and animals Predict impact on a plant/animal due to climate change Design an solution to help overcome identified impact		

May-June Earth's Systems and Earth and Human Activity	**3-ESS2-1** Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season. **3-ESS2-2** Obtain and combine information to describe climates in different regions of the world. **3-ESS2-1** Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard.	Identify typical weather conditions that occur during a particular season Examine and use tools that measure weather conditions. Gather weather data on an identified season in a different region in a table and display it using a graph Compare/contrast graphs within the same season Using data, predict weather patterns for a particular region Design and construct a solution to stop the impact of severe weather **Instructional Resources** *National Geographic Science* **Student Technology:** Google Classroom Chromebook/ IPad **Teacher Technology:** Promethean Board/Activ Panel YouTube Videos ActiView Scholastic BrainPop Bill Nye Video	**Formative Assessments:** Quiz Classwork Teacher Observation **Summative Assessment:** Project/Labs Chapter Test Accommodations and Modifications	**Interdisciplinary Standard:** Math MD B3 After gathering data on weather, students will create a graph. **Technology Standard:** 8.1.5.DA.1: Collect, organize, and display data in order to highlight relationships or support a claim.

Alternate Assessments: Designing a solution to help overcome climate impact; Magnetic solution, Worksheets/Activities.
21st Century Standards: 9.2.4.A.3 & 9.2.4.A.4
21st Century Skills: Critical Thinking, Collaboration & Technology Literacy
Career Ready Practices: CRP1 & CRP5