

# PITTSGROVE TOWNSHIP SCHOOL DISTRICT



<b>Course Name:</b> Science	<b>Grade Level(s):</b> 3
<b>Department:</b> Science	<b>Credits:</b> N/A
<b>BOE Adoption Date:</b> September 17, 2020	<b>Revision Date(s):</b> August 5, 2020

## Course Description

Students will explore the scientific method through an inquiry-based environment, developing critical thinking and problem solving skills essential to becoming informed productive contributors to society in the 21st century. Students will engage in engineering and scientific practices and apply concepts to deepen their understanding of questioning, research, hypothesis, experimenting, collecting data, and analysis. Through the application of the scientific method, students will be able to draw conclusions, collaborate, and communicate results regarding life science, different types of matter, and earth sciences.

## Mission Statement

*The Pittsgrove Township School District believes in growing all learners to thrive. The district offers an intellectually rigorous, dynamic curriculum aligned to state and national standards coupled with research-based practices in classrooms. The Pittsgrove Township School District strives to highlight critical thinking, problem-solving, intercultural literacy, digital literacy, collaboration, innovation, and a growth mindset as part of the instructional core of learning. The district provides high quality resources to provide young people the knowledge they need to approach the future as leaders and learners.*

### **Curriculum & Instruction Goals**

1. To ensure students are college and career ready upon graduation
2. To vertically and horizontally align curriculum PreK-12 to ensure successful transition of students at each grade level
3. To identify individual student strengths and weaknesses utilizing various assessment measures (formative, summative, alternative, etc.) so as to differentiate instruction while meeting the rigor of the applicable content standards
4. To improve student achievement as assessed through multiple measures including, but not limited to, state testing, local assessments, and ongoing progress monitoring

### **How to Read this Document**

This curricular document contains both a  *pacing guide*  and  *curriculum units* . The  *pacing guide*  serves to communicate an estimated timeframe as to  *when*  critical knowledge and skills will be taught throughout the year. The  *pacing* , however, may differ slightly depending upon the unique needs of each learner. The  *curriculum units*  contain more detailed information as to the content, goals, objectives, instructional strategies, resources, and assessments.

NJ Administrative Code and Statutes Key
<p data-bbox="279 824 468 849"><b>^=Amistad Law</b></p> <p data-bbox="279 867 621 891"><b>O=Diversity &amp; Inclusion Law</b></p> <p data-bbox="279 909 449 933"><b>&lt;&gt;=Holocaust</b></p> <p data-bbox="279 951 617 976"><b>+ =LGBT and Disabilities Law</b></p> <p data-bbox="279 993 835 1018"><b>*=AAPI (Asian American and Pacific Islanders)</b></p> <p data-bbox="279 1036 520 1060"><b>\$=Financial Literacy</b></p> <p data-bbox="279 1078 1539 1102"><b>Use this key to understand where the NJ mandates are being implemented in the K-12 curriculum units.</b></p>

**Pacing Guide**

**Course Title: Science**

**Prerequisite(s):**

Unit Title	Duration/ Month(s)	Related Standards	Learning Goals	Critical Knowledge and Skills
<p><b>Unit 1: Investigating Questions</b></p>	<p><b>3-4 weeks 3- 4 times weekly</b></p>	<p><b>3-5-ETS1-1 3-5-ETS1-2 3-5-ETS1-3</b></p>	<p>SWBAT use tools to collect data, make observations and inferences in an experiment or investigation.</p> <p>SWBAT carry out an experiment or investigation with the use of a model and/ or appropriate tools.</p> <p>SWBAT use the scientific method to complete investigations with recorded observations and evidence-based explanations.</p> <p>SWBAT collaborate in a small group to complete an investigation using the scientific method.</p>	<ul style="list-style-type: none"> <li>● Students will use observations to make inferences.</li> <li>● Students will explain different ways that science questions can be investigated.</li> <li>● Students will explain how models may be used in investigations.</li> <li>● Students will describe tools that are used to enhance the ability to make observations.</li> <li>● Students will list possible reasons for differences in measurements between groups.</li> <li>● Students will record observations accurately and in appropriate ways.</li> </ul>

				<ul style="list-style-type: none"> <li>● Students will describe various ways scientists record and display data in order to communicate results.</li> <li>● Students will communicate results with other groups and explain any differences.</li> <li>● Students will explain that data is evidence that can be used to explain a conclusion.</li> </ul>
<b>Unit 2: Animals Through Time</b>	<b>8-9 weeks 3-4 times weekly</b>	<b>3-LS4-1</b> <b>3-LS4-4</b> <b>3-LS3-1</b> <b>3-LS4-2</b> <b>3-LS4-3</b> <b>3-LS2-1</b>	<p>SWBAT analyze and interpret data fossils and engage in an evidence-based argument to determine their habitat/environment.</p> <p>SWBAT analyze and interpret data from fossil records to determine food choices of organisms and develop an evidence-based argument for the chosen food source.</p> <p>SWBAT carry out an investigation and use mathematical concepts and computational thinking to compare human and dinosaur steps and motor movement.</p>	<ul style="list-style-type: none"> <li>● Students will explain that different plants and animals have different life cycles.</li> <li>● Students will develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.</li> <li>● Students will use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide</li> </ul>

			<p>SWBAT analyze the traits of parents to determine offspring and construct an explanation about the present traits in the offspring. SWBAT carry out an investigation by creating a model to simulate predator introduction to a habitat and collect/analyze data in order to engage in an evidence based argument.</p> <p>SWBAT observe, evaluate and communicate information about animal social behavior and use evidence to engage in an argument about whether or not animals form groups to help them survive.</p> <p>SWBAT obtain and evaluate information given about a mosquito problem and then design solutions that will reduce the number of mosquitoes in a town.</p> <p>SWBAT to measure their own physical traits and construct an explanation for how a change in environment, such as outer space, may influence or change physical traits.</p>	<p>advantages in surviving, finding mates, and reproducing.</p> <ul style="list-style-type: none"> <li>● Students will explain the difference between complete and incomplete metamorphosis.</li> <li>● Students will explain how adaptations help animals survive in their environment.</li> <li>● Students will analyze and interpret data to provide evidence that animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.</li> <li>● Students will use evidence to support the explanation that traits can be influenced by the environment.</li> <li>● Students will construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well,</li> </ul>
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				and some cannot survive at all.
<b>Unit 3: Flower Power</b>	<b>4-5 weeks 3-4 times weekly</b>	<b>3-LS1-1 3-LS3-1</b>	<p>SWBAT develop a model of a flower and bee to simulate pollination and carry out an investigation and analyze data to construct an explanation.</p> <p>SWBAT carry out an investigation and analyze the data to determine if a food is a fruit of vegetable.</p> <p>SWBAT carry out an investigation in order to determine different varieties of apples.</p> <p>SWBAT engage in argument from evidence and obtain , evaluate and communicate information to determine plant parents and families.</p>	<ul style="list-style-type: none"> <li>● Students will explain that in flowering plants, flowers help plants reproduce and that seeds are held in fruits; in coniferous plants, seeds are held in cones.</li> <li>● Students will explain that pollination must occur for flowering plants to produce seeds.</li> <li>● Students will describe ways that seeds can be dispersed.</li> <li>● Students will explain that plants do not always reproduce through seeds.</li> </ul>
<b>Unit 4: Stormy Skies</b>	<b>4-5 weeks 3-4 times weekly</b>	<b>3-ESS2-1 3-ESS2-2 3-ESS3-1</b>	<p>SWBAT carry out an investigation on evaporation through using a model and develop an evidence based argument.</p> <p>SWBAT identify and analyze information about different types of clouds and engage in an evidence</p>	<ul style="list-style-type: none"> <li>● Students will describe the water cycle.</li> <li>● Students will explain the cause and effect relationships in the water cycle.</li> <li>● Students will explore cloud patterns.</li> </ul>

			<p>based argument.</p> <p>SWBAT evaluate information about weather around the world and analyze and interpret data to determine climate patterns across the world.</p> <p>SWBAT define problems caused by different types of natural disasters/ weather and then create a model and develop a solution to the problem.</p>	<ul style="list-style-type: none"> <li>● Students will predict the weather based on observed patterns.</li> <li>● Students will identify different climates in the world.</li> <li>● Students will evaluate and describe weather patterns across the world.</li> <li>● Students will identify and describe different natural and man-made weather disasters.</li> <li>● Students will understand the cause and effect relationship among destructive weather and the problems they cause.</li> </ul>
<p><b>Unit 5: Invisible Forces</b></p>	<p><b>5-6 weeks</b> <b>3-4 times weekly</b></p>	<p><b>3-PS2-1</b> <b>3-PS2-2</b> <b>3-PS2-3</b> <b>3-PS2-4</b></p>	<p>SWBAT carry out an investigation about force and motion and construct an explanation for how forces act on an object.</p> <p>SWBAT collaborate with peers to design and construct a bridge and carry out investigations to test and improve their designs.</p> <p>SWBAT use a model of a slide to carry out an investigation and engage in an evidence-based argument to share their findings.</p>	<ul style="list-style-type: none"> <li>● Students will identify examples of force and motion in their environment.</li> <li>● Students will explain how force and motion effect objects in their environment.</li> <li>● Students will identify the structure and parts of a bridge.</li> <li>● Students will explain the relationship between structure and function of</li> </ul>

			<p>SWBAT ask questions about magnet and develop and carry out investigations in order to observe their different properties.</p> <p>SWBAT design a solution for a magnetic lock by developing a model.</p>	<p>different bridge designs.</p> <ul style="list-style-type: none"> <li>● Students will identify and explain friction and the different types of surfaces.</li> <li>● Students will explain the cause and effect relationship between the amount of friction and a material's surface.</li> <li>● Students will identify the cause and effect relationship between the distance magnets and their strength/force.</li> <li>● Students will explore the cause and effect relationship between two magnets and their poles.</li> </ul>
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## Instructional Unit Map

**Course Title: Science**

<b>Unit Title</b>	Investigating Questions		<b>Start Date:</b>	September
			<b>Length of Unit:</b>	3-4 weeks
<p><b>Content Standards</b> <i>What do we want them to know, understand, &amp; do?</i></p>	<p><b>3-5-ETS1-1</b> Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.</p> <p><b>3-5-ETS1-2</b> 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.</p> <p><b>3-5-ETS1-3</b> 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.</p>	<b>Learning Goals</b>	<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>● Use tools to collect data, make observations and inferences in an experiment or investigation.</li> <li>● Carry out an experiment or investigation with the use of a model and/ or appropriate tools.</li> <li>● Use the scientific method to complete investigations with recorded observations and evidence-based explanations.</li> <li>● Collaborate in a small group to complete an investigation using the scientific method.</li> </ul>	
<b>Essential Questions</b>	<ol style="list-style-type: none"> <li>1. What are the steps of the scientific method?</li> <li>2. Why is it important to use the scientific method in investigations?</li> </ol>			

	3. How can I decide what tools to use during an experiment?			
<b>Assessments</b> <i>How will we know they have gained the knowledge &amp; skills?</i>	<b>Formative</b>	<b>Summative</b>		<b>Alternative</b>
	Teacher Observation Student Check In's Worksheets Kahoot Padlet Boom Cards	Independent Investigations/Experiments End of Unit Assessments		Digital Presentation Oral Presentation or skit Drawing/Poster
<b>Unit Pre-Assessment(s)</b> <i>What do they already know?</i>	KWL charts Think-Pair-Share Turn and Talk Four Corners Inquiry Drawing/Journaling			
<b>Instructional Strategies/Student Activities</b>	Inquiry-Based Student Instruction Modeling Investigations/Experiments Hands-on Activities and Projects Collaborative Partner/Group Activities Graphic Organizers and Worksheets Mystery Science Resources, Activities and Videos. Vocabulary Cards			
<b>Instructional /Assessment Scaffolds</b> <i>(Modification</i>	<b>English Language Learners</b>	<b>Special Education Learners</b>	<b>Struggling Learners</b>	<b>Advanced Learners</b>

<p><i>ns /Accommodations) – planned for prior to instruction</i></p>	<ul style="list-style-type: none"> <li>● Preferential seating</li> <li>● Teacher modeling</li> <li>● Extended time</li> <li>● Peer Buddy/Partner</li> <li>● Alternate answers or responses</li> <li>● Simplified instructions</li> <li>● Hands-on items or manipulatives</li> <li>● Visual aides</li> <li>● Visual vocabulary cards</li> <li>● Pre teach and reteach concepts</li> <li>● Consistent lesson plan and structure</li> <li>● Provide instructional items in native language as needed</li> <li>● Frequent checks for understanding</li> <li>● Read assessments in native language as needed.</li> </ul>	<ul style="list-style-type: none"> <li>● Preferential seating</li> <li>● Teacher modeling</li> <li>● Extended time</li> <li>● Peer Buddy/Partner</li> <li>● Alternate answers or responses</li> <li>● Simplified instructions</li> <li>● Hands-on items or manipulatives</li> <li>● Visual aides</li> <li>● Visual vocabulary cards</li> <li>● Pre teach and reteach concepts</li> <li>● Consistent lesson plan and structure</li> <li>● Frequent checks for understanding</li> <li>● Read aloud of tests and quizzes as needed.</li> </ul>	<ul style="list-style-type: none"> <li>● Preferential seating</li> <li>● Teacher modeling</li> <li>● Extended time</li> <li>● Peer Buddy/Partner</li> <li>● Alternate answers or responses</li> <li>● Simplified instructions</li> <li>● Hands-on items or manipulatives</li> <li>● Visual aides</li> <li>● Visual vocabulary cards</li> <li>● Pre teach and reteach concepts</li> <li>● Consistent lesson plan and structure</li> <li>● Retakes of assessments as necessary</li> </ul>	<ul style="list-style-type: none"> <li>● Higher level questioning</li> <li>● Extension activities</li> <li>● Additional related STEM activities and centers</li> <li>● Independent study</li> </ul>
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<b>Differentiate</b>	<b>Access</b> (Resources and/or Process)	<b>Expression</b> (Products and/or Performance)
<b>Instructional Methods:</b> <i>(Multiple means for students to access content and multiple modes for student to express understanding)</i>	Chromebook Interactive whiteboard Modeling Partner and group work Graphic organizers and worksheets Leveled readers or texts Vocabulary cards	Digital presentations/skits Investigations and experiments
<b>Vocabulary</b> <i>Highlight key vocabulary (both Tier II and Tier III words)</i>	<b>Tier II</b> Investigate, experiment, observe, conclusion, analyze, question, research, data <b>Tier III</b> Scientific method, hypothesis, forceps, beaker, microscope, dropper	
<b>Integration of Technology</b> <a href="#">SAMR</a>	<ul style="list-style-type: none"> <li>● <b>S-</b> Use BrainPop, Flocabulary and other websites and digital media to teach lessons and complete work assignments using G-Suite.</li> <li>● <b>A-</b> Utilize G- Suite, Kahoot, Quizlet etc. in order to complete formative and summative assessments.</li> <li>● <b>M-</b> Collaborate with peers to complete worksheets or presentations through G-Suite</li> <li>● <b>R-</b> Collaborate with peers to complete a presentation or digital media product in response to a scientific investigation.</li> </ul>	
<b>Interdisciplinary Connections</b>	<b>English Language Arts</b> <ul style="list-style-type: none"> <li>● RI.3.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.</li> </ul>	

<p><a href="#">NJ Student Learning Standards</a></p>	<ul style="list-style-type: none"> <li>• RI.3.2 Determine the main idea of a text; recount the key details and explain how they support the main idea.</li> <li>• W.3.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.)</li> <li>• SL.3.4 Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.</li> </ul> <p><b>Mathematics</b></p> <ul style="list-style-type: none"> <li>• MP.4 Model with mathematics.</li> <li>• 3.NBT Number and Operations in Base Ten</li> <li>• MP.2 Reason abstractly and quantitatively.</li> <li>• 3.MD.B.4 Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters.</li> </ul>	
<p><b>21<sup>st</sup> Century Themes/Skills</b> <a href="#">P21 Framework</a></p>	<p style="text-align: center;"><b>Themes</b></p> <ul style="list-style-type: none"> <li>• Global Awareness</li> <li>• Environmental Literacy</li> </ul>	<p style="text-align: center;"><b>Skills</b></p> <ul style="list-style-type: none"> <li>• Creativity and Innovation</li> <li>• Critical Thinking and Problem Solving</li> <li>• Communication and Collaboration</li> <li>• Flexibility and Adaptability</li> <li>• Initiative and Self-direction</li> <li>• Social and Cross-cultural skills</li> <li>• Productivity and Accountability</li> <li>• Leadership and Responsibility</li> </ul>
<p><b>Resources/ Materials</b></p>	<ul style="list-style-type: none"> <li>• Mystery Science videos and activities for “Introduce Science” lessons</li> <li>• Fusions online activities and labs</li> <li>• Flocabulary</li> <li>• Brain Pop Videos</li> <li>• Google Classroom</li> <li>• Chromebooks</li> <li>• Teacher Generated Resources</li> </ul>	

## Instructional Unit Map

**Course Title: Science**

<b>Unit Title</b>	Animals Through Time	<b>Start Date:</b>	Mid October-Beginning of November
		<b>Length of Unit:</b>	8-9 weeks
<b>Content Standards</b> <i>What do we want them to know, understand, &amp; do?</i>	<p><b>3-LS4-1</b> Analyze and interpret data from fossils to provide evidence of the organisms and the environments in which they lived long ago.</p> <p><b>3-LS4-4</b> Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants that there may change.</p> <p><b>3-LS3-1</b> 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.</p> <p><b>3-LS4-2</b> Use evidence to construct an explanation for how the variations in characteristics</p>	<b>Learning Goals</b>	<p><b>Students will be able to :</b></p> <ul style="list-style-type: none"> <li>● Analyze and interpret data fossils and engage in an evidence-based argument to determine their habitat/environment.</li> <li>● Analyze and interpret data from fossil records to determine food choices of organisms and develop an evidence-based argument for the chosen food source.</li> <li>● Carry out an investigation and use mathematical concepts and computational thinking to compare human and dinosaur steps and motor movement.</li> <li>● Analyze the traits of parents to determine offspring and construct an explanation about the present traits in the offspring.</li> <li>● Carry out an investigation by creating a model to simulate predator introduction to a habitat and collect/analyze data in order to engage in an evidence based argument.</li> <li>● Observe, evaluate and communicate information about animal social behavior and use evidence to engage in an argument about whether or not animals form groups to help them survive.</li> </ul>

	<p>among individuals of the same species may provide advantages in surviving, finding mates and reproducing.</p> <p><b>3-LS4-3</b> 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.</p> <p><b>3-LS2-1</b> Construct an argument that some animals form groups that help members survive.</p>		<ul style="list-style-type: none"> <li>● Obtain and evaluate information given about a mosquito problem and then design solutions that will reduce the number of mosquitoes in a town.</li> <li>● Measure their own physical traits and construct an explanation for how a change in environment, such as outer space, may influence or change physical traits.</li> </ul>
<p><b>Essential Questions</b></p>	<ol style="list-style-type: none"> <li>1. Where can you find whales in the desert?</li> <li>2. How do we know what dinosaurs looked like?</li> <li>3. Can you outrun a dinosaur?</li> <li>4. What kinds of animals might there be in the future?</li> <li>5. Can selection happen without people?</li> <li>6. Why do dogs wag their tails?</li> <li>7. What is the best way to get rid of mosquitoes?</li> <li>8. How long can people and animals survive in outer space?</li> </ol>		
<p><b>Assessments</b> <i>How will we know they have gained the</i></p>	<p><b>Formative</b></p>	<p><b>Summative</b></p>	<p><b>Alternative</b></p>
	<p>Teacher Observation Student Check In's Worksheets</p>	<p>Independent Investigations/Experiments End of Unit Assessments</p>	<p>Digital Presentation Oral Presentation or skit</p>

<i>knowledge &amp; skills?</i>	Kahoot Boom Cards			Drawing/Poster
<b>Unit Pre-Assessment(s)</b> <i>What do they already know?</i>	KWL charts Think-Pair-Share Turn and Talk Four Corners Inquiry Drawing/Journal			
<b>Instructional Strategies/Student Activities</b>	Inquiry-Based Student Instruction Modeling Investigations/Experiments Hands-on Activities and Projects Collaborative Partner/Group Activities Graphic Organizers and Worksheets Mystery Science Resources, Activities and Videos. Vocabulary Cards			
<b>Instructional /Assessment Scaffolds</b> <i>(Modifications/Accommodations) – planned for prior to instruction</i>	<b>English Language Learners</b>	<b>Special Education Learners</b>	<b>Struggling Learners</b>	<b>Advanced Learners</b>
	<ul style="list-style-type: none"> <li>● Preferential seating</li> <li>● Teacher modeling</li> <li>● Extended time</li> <li>● Peer Buddy/Partner</li> <li>● Alternate answers or responses</li> <li>● Simplified instructions</li> </ul>	<ul style="list-style-type: none"> <li>● Preferential seating</li> <li>● Teacher modeling</li> <li>● Extended time</li> <li>● Peer Buddy/Partner</li> </ul>	<ul style="list-style-type: none"> <li>● Preferential seating</li> <li>● Teacher modeling</li> <li>● Extended time</li> <li>● Peer Buddy/Partner</li> <li>● Alternate answers or responses</li> <li>● Simplified instructions</li> <li>● Hands-on items or manipulatives</li> </ul>	<ul style="list-style-type: none"> <li>● Higher level questioning</li> <li>● Extension activities</li> <li>● Additional related STEM</li> </ul>



	<ul style="list-style-type: none"> <li>● Hands-on items or manipulatives</li> <li>● Visual aides</li> <li>● Visual vocabulary cards</li> <li>● Pre teach and reteach concepts</li> <li>● Consistent lesson plan and structure</li> <li>● Provide instructional items in native language as needed</li> <li>● Frequent checks for understanding</li> <li>● Read assessments in native language as needed.</li> </ul>	<ul style="list-style-type: none"> <li>● Alternate answers or responses</li> <li>● Simplified instructions</li> <li>● Hands-on items or manipulatives</li> <li>● Visual aides</li> <li>● Visual vocabulary cards</li> <li>● Pre teach and reteach concepts</li> <li>● Consistent lesson plan and structure</li> <li>● Frequent checks for understanding</li> <li>● Read aloud of tests and quizzes as needed.</li> </ul>	<ul style="list-style-type: none"> <li>● Visual aides</li> <li>● Visual vocabulary cards</li> <li>● Pre teach and reteach concepts</li> <li>● Consistent lesson plan and structure</li> <li>● Retakes of assessments as necessary</li> </ul>	<ul style="list-style-type: none"> <li>● activities and centers</li> <li>● Independent study</li> </ul>
<b>Differentiated Instructional Methods:</b>	<b>Access</b> (Resources and/or Process)		<b>Expression</b> (Products and/or Performance)	

<p><i>(Multiple means for students to access content and multiple modes for student to express understanding)</i></p>	<p>Chromebook Interactive whiteboard Modeling Partner and group work Graphic organizers and worksheets Leveled readers or texts Vocabulary cards</p>	<p>Digital presentations/skits Investigations and experiments</p>
<p><b>Vocabulary</b> <i>Highlight key vocabulary (both Tier II and Tier III words)</i></p>	<p><b>Tier II</b> Investigate, experiment, observe, conclusion, analyze, question, research, data, traits, fossil, carnivore, herbivore, mammal, omnivore, mating,</p> <p><b>Tier III</b> inherit, variation, reproduce, organism, survival, habitat, environment, classification, species, selection,</p>	
<p><b>Integration of Technology</b> <a href="#">SAMR</a></p>	<ul style="list-style-type: none"> <li>● <b>S-</b> Use BrainPop, Flocabulary and other websites and digital media to teach lessons and complete work assignments using G-Suite.</li> <li>● <b>A-</b> Utilize G- Suite, Kahoot, Quizlet etc. in order to complete formative and summative assessments.</li> <li>● <b>M-</b> Collaborate with peers to complete worksheets or presentations through G-Suite</li> <li>● <b>R-</b> Collaborate with peers to complete a presentation or digital media product in response to a scientific investigation.</li> </ul>	
<p><b>Interdisciplinary Connections</b> <a href="#">NJ Student Learning Standards</a></p>	<p><b>English Language Arts</b></p> <ul style="list-style-type: none"> <li>● RI.3.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.</li> <li>● RI.3.3 Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.</li> <li>● RI.3.2 Determine the main idea of a text; recount the key details and explain how they support the main idea.</li> <li>● W.3.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.)</li> </ul>	

	<ul style="list-style-type: none"> <li>• SL.3.4 Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.</li> </ul> <p><b>Mathematics</b></p> <ul style="list-style-type: none"> <li>• MP.4 Model with mathematics.</li> <li>• 3.NBT Number and Operations in Base Ten</li> <li>• MP.2 Reason abstractly and quantitatively.</li> <li>• 3.MD.B.4 Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters.</li> </ul>	
<p><b>21<sup>st</sup> Century Themes/Skills</b></p> <p><a href="#">P21 Framework</a></p>	<p><b>Themes</b></p>	<p><b>Skills</b></p>
<p><b>Resources/ Materials</b></p>	<ul style="list-style-type: none"> <li>• Global Awareness</li> <li>• Environmental Literacy</li> <li>• Creativity and Innovation</li> <li>• Critical Thinking and Problem Solving</li> <li>• Communication and Collaboration</li> <li>• Flexibility and Adaptability</li> <li>• Initiative and Self-direction</li> <li>• Social and Cross-cultural skills</li> <li>• Productivity and Accountability</li> <li>• Leadership and Responsibility</li> <li>• Mystery Science videos, activities, and resources (Animals Through Time Lessons 1-8)</li> <li>• Fusions online activities and labs</li> <li>• Flocabulary</li> <li>• Brain Pop Videos</li> <li>• Google Classroom</li> <li>• Chromebooks</li> <li>• Teacher Generated Resources</li> <li>• Vocabulary Cards</li> <li>• Graphic Organizers and Worksheets</li> </ul>	

## Instructional Unit Map

**Course Title: Science**

<b>Unit Title</b>	Flower Power		<b>Start Date:</b>	January	
			<b>Length of Unit:</b>	4-5 weeks	
<b>Content Standards</b> <i>What do we want them to know, understand, &amp; do?</i>	<p><b>3-LS1-1</b> Develop models to describe that organisms have unique and diverse life cycles, but all have in common birth, growth, reproduction and death.</p> <p><b>3-LS3-1</b> Use evidence to support the explanation that traits can be influenced by the environment.</p>	<b>Learning Goals</b>	<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>● Develop a model of a flower and bee to simulate pollination and carry out an investigation and analyze data to construct an explanation.</li> <li>● Carry out an investigation and analyze the data to determine if a food is a fruit or vegetable.</li> <li>● Carry out an investigation in order to determine different varieties of apples.</li> <li>● Engage in argument from evidence and obtain, evaluate and communicate information to determine plant parents and families.</li> </ul>		
<b>Essential Questions</b>	<ol style="list-style-type: none"> <li>1. Why do plants grow flowers?</li> <li>2. Why do plants give us fruit?</li> <li>3. Why are some apples red and some green?</li> <li>4. How could you make the biggest fruit in the world?</li> </ol>				
<b>Assessments</b> <i>How will we know they have gained the</i>	<b>Formative</b>		<b>Summative</b>		<b>Alternative</b>
	Teacher Observation Student Check In's Worksheets		Independent Investigations/Experiments End of Unit Assessments		Digital Presentation Oral Presentation or skit

<i>knowledge &amp; skills?</i>	Kahoot Boom Cards			Drawing/Poster
<b>Unit Pre-Assessment(s)</b> <i>What do they already know?</i>	KWL charts Think-Pair-Share Turn and Talk Four Corners Inquiry Drawing/Journal			
<b>Instructional Strategies/Student Activities</b>	Inquiry-Based Student Instruction Modeling Investigations/Experiments Hands-on Activities and Projects Collaborative Partner/Group Activities Graphic Organizers and Worksheets Mystery Science Resources, Activities and Videos. Vocabulary Cards			
<b>Instructional /Assessment Scaffolds</b> <i>(Modifications /Accommodations) – planned for prior to instruction</i>	<b>English Language Learners</b>	<b>Special Education Learners</b>	<b>Struggling Learners</b>	<b>Advanced Learners</b>
	<ul style="list-style-type: none"> <li>● Preferential seating</li> <li>● Teacher modeling</li> <li>● Extended time</li> <li>● Peer Buddy/Partner</li> <li>● Alternate answers or responses</li> <li>● Simplified instructions</li> </ul>	<ul style="list-style-type: none"> <li>● Preferential seating</li> <li>● Teacher modeling</li> <li>● Extended time</li> <li>● Peer Buddy/Partner</li> </ul>	<ul style="list-style-type: none"> <li>● Preferential seating</li> <li>● Teacher modeling</li> <li>● Extended time</li> <li>● Peer Buddy/Partner</li> <li>● Alternate answers or responses</li> <li>● Simplified instructions</li> <li>● Hands-on items or manipulatives</li> <li>● Visual aides</li> </ul>	<ul style="list-style-type: none"> <li>● Higher level questioning</li> <li>● Extension activities</li> <li>● Additional related STEM</li> </ul>

	<ul style="list-style-type: none"> <li>● Hands-on items or manipulatives</li> <li>● Visual aides</li> <li>● Visual vocabulary cards</li> <li>● Pre teach and reteach concepts</li> <li>● Consistent lesson plan and structure</li> <li>● Provide instructional items in native language as needed</li> <li>● Frequent checks for understanding</li> <li>● Read assessments in native language as needed.</li> </ul>	<ul style="list-style-type: none"> <li>● Alternate answers or responses</li> <li>● Simplified instructions</li> <li>● Hands-on items or manipulatives</li> <li>● Visual aides</li> <li>● Visual vocabulary cards</li> <li>● Pre teach and reteach concepts</li> <li>● Consistent lesson plan and structure</li> <li>● Frequent checks for understanding</li> <li>● Read aloud of tests and quizzes as needed.</li> </ul>	<ul style="list-style-type: none"> <li>● Visual vocabulary cards</li> <li>● Pre teach and reteach concepts</li> <li>● Consistent lesson plan and structure</li> <li>● Retakes of assessments as necessary</li> </ul>	<ul style="list-style-type: none"> <li>● activities and centers</li> <li>● Independent study</li> </ul>
<b>Differentiated Instructional</b>	<b>Access</b> (Resources and/or Process)		<b>Expression</b> (Products and/or Performance)	

<p><b>Methods:</b> (Multiple means for students to access content and multiple modes for student to express understanding)</p>	<p>Chromebook Interactive whiteboard Modeling Partner and group work Graphic organizers and worksheets Leveled readers or texts Vocabulary cards</p>	<p>Digital presentations/skits Investigations and experiments</p>
<p><b>Vocabulary</b> Highlight key vocabulary (both Tier II and Tier III words)</p>	<p><b>Tier II</b> investigate, experiment, observe, conclusion, analyze, question, research, data, pollen, seeds, fruit, vegetable, traits, variety</p> <p><b>Tier III</b> pollination, reproduction, stigma, ovary, nectar, inherit, artificial selection</p>	
<p><b>Integration of Technology</b> <a href="#">SAMR</a></p>	<ul style="list-style-type: none"> <li>● <b>S-</b> Use BrainPop, Flocabulary and other websites and digital media to teach lessons and complete work assignments using G-Suite.</li> <li>● <b>A-</b> Utilize G- Suite, Kahoot, Quizlet etc. in order to complete formative and summative assessments.</li> <li>● <b>M-</b> Collaborate with peers to complete worksheets or presentations through G-Suite</li> <li>● <b>R-</b> Collaborate with peers to complete a presentation or digital media product in response to a scientific investigation.</li> </ul>	
<p><b>Interdisciplinary Connections</b> <a href="#">NJ Student Learning Standards</a></p>	<p><b>English Language Arts</b></p> <ul style="list-style-type: none"> <li>● RI.3.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.</li> <li>● RI.3.2 Determine the main idea of a text; recount the key details and explain how they support the main idea.</li> <li>● RI.3.3 Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.</li> </ul>	

	<ul style="list-style-type: none"> <li>• W.3.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</li> <li>• SL.3.4 Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.</li> <li>• RI.3.7 Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).</li> <li>• SL.3.5 Create engaging audio recordings of stories or poems that demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or enhance certain facts or details.</li> </ul> <p><b>Mathematics</b></p> <ul style="list-style-type: none"> <li>• MP.2 Reason abstractly and quantitatively.</li> <li>• MP.4 Model with mathematics.</li> <li>• 3.MD.B.4 Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters.</li> <li>• 3.NBT Number and Operations in Base Ten</li> <li>• 3.NF Number and Operations—Fractions</li> </ul>	
<p><b>21<sup>st</sup> Century Themes/Skills</b> <a href="#">P21 Framework</a></p>	<p style="text-align: center;"><b>Themes</b></p>	<p style="text-align: center;"><b>Skills</b></p>
<p><b>Resources/ Materials</b></p>	<ul style="list-style-type: none"> <li>• Mystery Science videos, activities, and resources (Power of Flowers Lessons 1-4)</li> <li>• Fusions online activities and labs</li> <li>• Flocabulary</li> </ul>	
	<ul style="list-style-type: none"> <li>• Global Awareness</li> <li>• Environmental Literacy</li> </ul>	<ul style="list-style-type: none"> <li>• Creativity and Innovation</li> <li>• Critical Thinking and Problem Solving</li> <li>• Communication and Collaboration</li> <li>• Flexibility and Adaptability</li> <li>• Initiative and Self-direction</li> <li>• Social and Cross-cultural skills</li> <li>• Productivity and Accountability</li> <li>• Leadership and Responsibility</li> </ul>



	<ul style="list-style-type: none"> <li>● Brain Pop Videos</li> <li>● Google Classroom</li> <li>● Chromebooks</li> <li>● Teacher Generated Resources</li> <li>● Vocabulary Cards</li> <li>● Graphic Organizers and Worksheets</li> </ul>
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Instructional Unit Map							
Course Title: Science							
<b>Unit Title</b>	Stormy Skies		<table border="1"> <tr> <td style="background-color: #cccccc;"><b>Start Date:</b></td> <td>March</td> </tr> <tr> <td style="background-color: #cccccc;"><b>Length of Unit:</b></td> <td>4-5 weeks</td> </tr> </table>	<b>Start Date:</b>	March	<b>Length of Unit:</b>	4-5 weeks
<b>Start Date:</b>	March						
<b>Length of Unit:</b>	4-5 weeks						
<b>Content Standards</b> <i>What do we want them to know, understand, &amp; do?</i>	<p><b>3-ESS2-1</b> Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season.</p> <p><b>3-ESS2-2</b> Obtain and combine information to describe climates in different regions of the world.</p> <p><b>3-ESS3-1</b> Make a claim about the merit of a design solution that reduces the impacts of climate change and/or a weather-related hazard.</p>	<b>Learning Goals</b>	<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>● Carry out an investigation on evaporation through using a model and develop an evidence based argument.</li> <li>● Identify and analyze information about different types of clouds and engage in an evidence based argument.</li> <li>● Evaluate information about weather around the world and analyze and interpret data to determine climate patterns across the world.</li> <li>● Define problems caused by different types of natural disasters/ weather and then create a model and develop a solution to the problem.</li> </ul>				

<b>Essential Questions</b>	<ol style="list-style-type: none"> <li>1. Where do clouds come from?</li> <li>2. How can we predict when it's going to storm?</li> <li>3. Why are some places always hot?</li> <li>4. How can you keep a house from blowing away in a windstorm?</li> </ol>		
<b>Assessments</b> <i>How will we know they have gained the knowledge &amp; skills?</i>	<b>Formative</b>	<b>Summative</b>	<b>Alternative</b>
	Teacher Observation Student Check In's Worksheets Kahoot Boom Cards	Independent Investigations/Experiments End of Unit Assessments	Digital Presentation Oral Presentation or skit Drawing/Poster
<b>Unit Pre-Assessment(s)</b> <i>What do they already know?</i>	KWL charts Think-Pair-Share Turn and Talk Four Corners Inquiry Drawing/Journal		
<b>Instructional Strategies/Student Activities</b>	Inquiry-Based Student Instruction Modeling Investigations/Experiments Hands-on Activities and Projects Collaborative Partner/Group Activities Graphic Organizers and Worksheets Mystery Science Resources, Activities and Videos. Vocabulary Cards		

Instructional /Assessment Scaffolds	English Language Learners	Special Education Learners	Struggling Learners	Advanced Learners
<i>(Modifications /Accommodations) – planned for prior to instruction</i>	<ul style="list-style-type: none"> <li>● Preferential seating</li> <li>● Teacher modeling</li> <li>● Extended time</li> <li>● Peer Buddy/Partner</li> <li>● Alternate answers or responses</li> <li>● Simplified instructions</li> <li>● Hands-on items or manipulatives</li> <li>● Visual aides</li> <li>● Visual vocabulary cards</li> <li>● Pre teach and reteach concepts</li> <li>● Consistent lesson plan and structure</li> <li>● Provide instructional items in native language as needed</li> <li>● Frequent checks for understanding</li> <li>● Read assessments in native language as needed.</li> </ul>	<ul style="list-style-type: none"> <li>● Preferential seating</li> <li>● Teacher modeling</li> <li>● Extended time</li> <li>● Peer Buddy/Partner</li> <li>● Alternate answers or responses</li> <li>● Simplified instructions</li> <li>● Hands-on items or manipulatives</li> <li>● Visual aides</li> <li>● Visual vocabulary cards</li> <li>● Pre teach and reteach concepts</li> <li>● Consistent lesson plan and structure</li> </ul>	<ul style="list-style-type: none"> <li>● Preferential seating</li> <li>● Teacher modeling</li> <li>● Extended time</li> <li>● Peer Buddy/Partner</li> <li>● Alternate answers or responses</li> <li>● Simplified instructions</li> <li>● Hands-on items or manipulatives</li> <li>● Visual aides</li> <li>● Visual vocabulary cards</li> <li>● Pre teach and reteach concepts</li> <li>● Consistent lesson plan and structure</li> <li>● Retakes of assessments as necessary</li> </ul>	<ul style="list-style-type: none"> <li>● Higher level questioning</li> <li>● Extension activities</li> <li>● Additional related STEM activities and centers</li> <li>● Independent study</li> </ul>

		<ul style="list-style-type: none"> <li>• Frequent checks for understanding</li> <li>• Read aloud of tests and quizzes as needed.</li> </ul>		
<b>Differentiated Instructional Methods:</b> <i>(Multiple means for students to access content and multiple modes for student to express understanding)</i>	<b>Access</b> (Resources and/or Process)		<b>Expression</b> (Products and/or Performance)	
	Chromebook Interactive whiteboard Modeling Partner and group work Graphic organizers and worksheets Leveled readers or texts Vocabulary cards		Digital presentations/skits Investigations and experiments	
<b>Vocabulary</b> <i>Highlight key vocabulary (both Tier II and Tier III words)</i>	<b>Tier II</b> investigate, experiment, observe, conclusion, analyze, question, research, data, weather, solid, gas, liquid, lightning, hail, tornado, hurricane, dust storm  <b>Tier III</b> climate, condensation, evaporation, water vapor, cumulonimbus, tropic zone, polar climate zone, temperate climate, engineer			

<b>Integration of Technology</b> <a href="#">SAMR</a>	<ul style="list-style-type: none"> <li>● <b>S-</b> Use BrainPop, Flocabulary and other websites and digital media to teach lessons and complete work assignments using G-Suite.</li> <li>● <b>A-</b> Utilize G- Suite, Kahoot, Quizlet etc. in order to complete formative and summative assessments.</li> <li>● <b>M-</b> Collaborate with peers to complete worksheets or presentations through G-Suite</li> <li>● <b>R-</b> Collaborate with peers to complete a presentation or digital media product in response to a scientific investigation.</li> </ul>	
<b>Interdisciplinary Connections</b> <a href="#">NJ Student Learning Standards</a>	<p><b>English Language Arts</b></p> <ul style="list-style-type: none"> <li>● RI.3.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.</li> <li>● RI.3.2 Determine the main idea of a text; recount the key details and explain how they support the main idea.</li> <li>● RI.3.3 Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.</li> <li>● W.3.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</li> <li>● SL.3.4 Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.</li> <li>● W.3.7 Conduct short research projects that build knowledge about a topic.</li> </ul> <p><b>Mathematics</b></p> <ul style="list-style-type: none"> <li>● MP.2 Reason abstractly and quantitatively.</li> <li>● MP.4 Model with mathematics.</li> <li>● 3.MD.B.4 Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters.</li> </ul>	
<b>21<sup>st</sup> Century Themes/Skills</b> <a href="#">P21 Framework</a>	<p style="text-align: center;"><b>Themes</b></p> <ul style="list-style-type: none"> <li>● Global Awareness</li> <li>● Environmental Literacy</li> </ul>	<p style="text-align: center;"><b>Skills</b></p> <ul style="list-style-type: none"> <li>● Creativity and Innovation</li> <li>● Critical Thinking and Problem Solving</li> <li>● Communication and Collaboration</li> <li>● Flexibility and Adaptability</li> <li>● Initiative and Self-direction</li> </ul>

		<ul style="list-style-type: none"> <li>• Social and Cross-cultural skills</li> <li>• Productivity and Accountability</li> <li>• Leadership and Responsibility</li> </ul>
<b>Resources/ Materials</b>	<ul style="list-style-type: none"> <li>• Mystery Science videos, activities, and resources (Stormy Skies Lessons 1-4)</li> <li>• Fusions online activities and labs</li> <li>• Flocabulary</li> <li>• Brain Pop Videos</li> <li>• Google Classroom</li> <li>• Chromebooks</li> <li>• Teacher Generated Resources</li> <li>• Vocabulary Cards</li> <li>• Graphic Organizers and Worksheets</li> </ul>	

Instructional Unit Map			
Course Title: Science			
<b>Unit Title</b>	Invisible Forces	<b>Start Date:</b>	April
		<b>Length of Unit:</b>	5-6 weeks
<b>Content Standards</b> <i>What do we want them to know, understand, &amp; do?</i>	<b>3-PS2-1</b> Plan and conduct an investigation to provide evidence of balanced and unbalanced forces on the motion of an object. <b>3-PS2-2</b>	<b>Learning Goals</b>	<b>Students will be able to:</b> <ul style="list-style-type: none"> <li>• Carry out an investigation about force and motion and construct an explanation for how forces act on an object.</li> <li>• Collaborate with peers to design and construct a bridge and carry out investigations to test and improve their designs.</li> </ul>

	<p>Make an observation and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion.</p> <p><b>3-PS2-3</b> Ask questions to determine cause and effect relationships of electric or magnetic interactions between two objects not in contact with each other.</p> <p><b>3-PS2-4</b> Define a simple design problem that be solved by applying scientific ideas about magnets.</p>		<ul style="list-style-type: none"> <li>● Use a model of a slide to carry out an investigation and engage in an evidence-based argument to share their findings.</li> <li>● Ask questions about magnet and develop and carry out investigations in order to observe their different properties.</li> <li>● Design a solution for a magnetic lock by developing a model.</li> </ul>
<p><b>Essential Questions</b></p>	<ol style="list-style-type: none"> <li>1. How could you win a tug-of-war against a group of adults?</li> <li>2. What makes bridges so strong?</li> <li>3. How can you go faster down a slide?</li> <li>4. What can magnets do?</li> <li>5. How could you unlock a door using a magnet?</li> </ol>		
<p><b>Assessments</b> <i>How will we know they have gained the knowledge &amp; skills?</i></p>	<p><b>Formative</b></p>	<p><b>Summative</b></p>	<p><b>Alternative</b></p>
	<p>Teacher Observation Student Check In's Worksheets Kahoot Boom Cards</p>	<p>Independent Investigations/Experiments End of Unit Assessments</p>	<p>Digital Presentation Oral Presentation or skit Drawing/Poster</p>

<b>Unit Pre-Assessment(s)</b> <i>What do they already know?</i>	KWL charts Think-Pair-Share Turn and Talk Four Corners Inquiry Drawing/Journal			
<b>Instructional Strategies/Student Activities</b>	Inquiry-Based Student Instruction Modeling Investigations/Experiments Hands-on Activities and Projects Collaborative Partner/Group Activities Graphic Organizers and Worksheets Mystery Science Resources, Activities and Videos. Vocabulary Cards			
<b>Instructional /Assessment Scaffolds</b> <i>(Modifications /Accommodations) – planned for prior to instruction</i>	<b>English Language Learners</b>	<b>Special Education Learners</b>	<b>Struggling Learners</b>	<b>Advanced Learners</b>
	<ul style="list-style-type: none"> <li>● Preferential seating</li> <li>● Teacher modeling</li> <li>● Extended time</li> <li>● Peer Buddy/Partner</li> <li>● Alternate answers or responses</li> <li>● Simplified instructions</li> <li>● Hands-on items or manipulatives</li> <li>● Visual aides</li> <li>● Visual vocabulary cards</li> </ul>	<ul style="list-style-type: none"> <li>● Preferential seating</li> <li>● Teacher modeling</li> <li>● Extended time</li> <li>● Peer Buddy/Partner</li> <li>● Alternate answers or responses</li> </ul>	<ul style="list-style-type: none"> <li>● Preferential seating</li> <li>● Teacher modeling</li> <li>● Extended time</li> <li>● Peer Buddy/Partner</li> <li>● Alternate answers or responses</li> <li>● Simplified instructions</li> <li>● Hands-on items or manipulatives</li> <li>● Visual aides</li> <li>● Visual vocabulary cards</li> <li>● Pre teach and reteach concepts</li> </ul>	<ul style="list-style-type: none"> <li>● Higher level questioning</li> <li>● Extension activities</li> <li>● Additional related STEM activities and centers</li> <li>● Independent study</li> </ul>



	<ul style="list-style-type: none"> <li>● Pre teach and reteach concepts</li> <li>● Consistent lesson plan and structure</li> <li>● Provide instructional items in native language as needed</li> <li>● Frequent checks for understanding</li> <li>● Read assessments in native language as needed.</li> </ul>	<ul style="list-style-type: none"> <li>● Simplified instructions</li> <li>● Hands-on items or manipulatives</li> <li>● Visual aides</li> <li>● Visual vocabulary cards</li> <li>● Pre teach and reteach concepts</li> <li>● Consistent lesson plan and structure</li> <li>● Frequent checks for understanding</li> <li>● Read aloud of tests and quizzes as needed.</li> </ul>	<ul style="list-style-type: none"> <li>● Consistent lesson plan and structure</li> <li>● Retakes of assessments as necessary</li> </ul>	
<b>Differentiated Instructional Methods:</b> <i>(Multiple means for</i>	<b>Access</b> (Resources and/or Process)		<b>Expression</b> (Products and/or Performance)	
	Chromebook Interactive whiteboard Modeling Partner and group work		Digital presentations/skits Investigations and experiments	

<p><i>students to access content and multiple modes for student to express understanding)</i></p>	<p>Graphic organizers and worksheets          Leveled readers or texts          Vocabulary cards</p>	
<p><b>Vocabulary</b>  <i>Highlight key vocabulary (both Tier II and Tier III words)</i></p>	<p><b>Tier II</b>          investigate, experiment, observe, conclusion, analyze, question, research, data, push, pull, weight, smooth, rough, magnet, property</p> <p><b>Tier III</b>          propel, engineer, force, motion, magnetized, arch bridge, pillar bridge, suspension bridge, truss bridge, friction, gravity, attraction</p>	
<p><b>Integration of Technology</b>  <a href="#">SAMR</a></p>	<ul style="list-style-type: none"> <li>● <b>S-</b> Use BrainPop, Flocabulary and other websites and digital media to teach lessons and complete work assignments using G-Suite.</li> <li>● <b>A-</b> Utilize G- Suite, Kahoot, Quizlet etc. in order to complete formative and summative assessments.</li> <li>● <b>M-</b> Collaborate with peers to complete worksheets or presentations through G-Suite</li> <li>● <b>R-</b> Collaborate with peers to complete a presentation or digital media product in response to a scientific investigation.</li> </ul>	
<p><b>Interdisciplinary Connections</b>  <a href="#">NJ Student Learning Standards</a></p>	<p><b>English Language Arts</b></p> <ul style="list-style-type: none"> <li>• RI.3.1 Ask and answer questions, and make relevant connections to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.</li> <li>• RI.3.3 Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.</li> <li>• RI.3.8 Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence) to support specific points the author makes in a text.</li> </ul>	

	<ul style="list-style-type: none"> <li>• W.3.7 Conduct short research projects that build knowledge about a topic.</li> <li>• W.3.8 Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.</li> <li>• SL.3.3 Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.</li> </ul> <p><b>Mathematics</b></p> <ul style="list-style-type: none"> <li>• MP.2 Reason abstractly and quantitatively.</li> <li>• MP.5 Use appropriate tools strategically.</li> <li>• 3.MD.A.2 Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.</li> </ul>	
<p><b>21<sup>st</sup> Century Themes/Skills</b> <a href="#">P21 Framework</a></p>	<p style="text-align: center;"><b>Themes</b></p>	<p style="text-align: center;"><b>Skills</b></p>
<p><b>Resources/ Materials</b></p>	<ul style="list-style-type: none"> <li>• Global Awareness</li> <li>• Environmental Literacy</li> <li>• Creativity and Innovation</li> <li>• Critical Thinking and Problem Solving</li> <li>• Communication and Collaboration</li> <li>• Flexibility and Adaptability</li> <li>• Initiative and Self-direction</li> <li>• Social and Cross-cultural skills</li> <li>• Productivity and Accountability</li> <li>• Leadership and Responsibility</li> <li>• Mystery Science videos, activities, and resources (Invisible Forces Lessons 1-5)</li> <li>• Fusions online activities and labs</li> <li>• Flocabulary</li> <li>• Brain Pop Videos</li> <li>• Google Classroom</li> <li>• Chromebooks</li> <li>• Teacher Generated Resources</li> </ul>	

- Vocabulary Cards
- Graphic Organizers and Worksheets