

Hopkins County Schools  
 Grade 3  
 NGSS Pacing Guide & Curriculum Map

Marking Period	NGSS Disciplinary Core Ideas	Science Lesson Chapter & Title	Essential Question	I Can...	Key Vocabulary
1 <sup>st</sup>	PS1.A Structure and Properties of Matter Practice 6: Constructing Explanations	Chapter 6, Earthlets (PPS)	What properties can be measured or observed to gather data?	I can gather data by measuring and/or observing properties.	Observation Inference Properties
1 <sup>st</sup>	PS2.A Forces and Motions PS2.B Types of Interactions	Chapter 14, Sheep in a Jeep (PPS)	How can the position and motion of objects be changed?	I can describe an object's motion by tracing and measuring its position over time.	Force Motion Push Pull Gravity Friction Inertia
1 <sup>st</sup>	Practice 5, Using Mathematics and Computational Thinking*	Chapter 7, How Big is a Foot (MPPS)	Why do we have standard units of measurement?	I can explain why standard measuring tools are useful for scientists.	Weights Measures Customary system Metric system Standard units
1 <sup>st</sup>	PS1.A Structure and Properties of Matter PS2.B Types of Interactions	Chapter 13, That Magnetic Dog (MPPS)	What types of objects are attracted to magnets?	I can explain the properties of objects that attract to a magnet	Attract Repel Metal Magnetism Poles Magnetic field

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1st	ETS1.A Defining and Delimiting an Engineering Problem ETS1.B Developing Possible Solutions ETS1.C Optimizing the Design Solution	Chapter 19, Imaginative Inventions (MPPS)	How can using the scientific method help solve a problem?	I can identify and implement the steps of the scientific method.	Invention Discovery Scientific method
1st	PS2.A Forces and Motion PS2.B Types of Interactions ETS1.C Optimizing the Design of Solution	Chapter 7, Float Your Boat (EMPPS)	What causes objects to sink or float in water?	I can predict if objects will float or sink in water and tell why.	Buoyancy/buoyant Gravity Water displacement Density/dense Force Magnitude
1st	ETS1.A Defining and Delimiting an Engineering Problem ETS1.B Developing Possible Solutions ETS1.C Optimizing the Design Solution	Chapter 20, Problem Solvers (EMPPS)	How are problems solved?	I can determine how engineers and inventors solved different problems.	Invention Discovering Engineer/engineering

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1 <sup>st</sup>	ETS1.A Defining and Delimiting an Engineering Problem ETS1.B Developing Possible Solutions ETS1.C Optimizing the Design Solution	Chapter 20, Brainstorms From Idea to Intervention (PPS)	How can analyzing data from the design process help improve the functions of an invention?	I can analyze the design process by improving an existing invention.	Invention Discovery Design Process
1 <sup>st</sup>	PS2.A Forces and Motion PS2.B types of Interactions ES1.A Defining and Delimiting an Engineering Problem ETS1.B Developing Possible Solution ETS1.C Optimizing the Design Solution	Chapter 23, The Secrets of Flight (PPS)	How can changing the four forces of flight affect an airplane's performance?	I can explore the forces of flight and use the design process to improve the times of paper airplanes.	Design Process Gravity Lift Drag Thrust
2 <sup>nd</sup> Trimester	3-LS1B: Growth and Development of Organisms	MPPS Chapter 9: Loco Beans	What is unique about the Loco Bean's life cycle?	I can develop a model to describe a life cycle.	Life cycle Larva Eggs Pupa Adult

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2 <sup>nd</sup>	LS1.B Growth and Development of Organisms LS1.A Structure and Function	Chapter 8, Rice is Life (PPS)	What is essential to the life cycle of rice?	I can observe and explain the life cycle of rice.	Life cycle Embryo Bran layers Rice grain Husk
2 <sup>nd</sup>	LS4.D Biodiversity and Humans	Chapter 12, Turtle Hurdles (PPS)	How do changes in the environment influence the life cycle of sea turtles?	I can identify the dangers to sea turtles and explain the life cycle of sea turtles.	Endangered Sea turtle Aquatic Reptiles Eggs Natural factors
2 <sup>nd</sup>	LS4.D Biodiversity and Humans	Chapter 13, Oil Spill (PPS)	What are the effects of oil spills?	I can identify how oil spills effect the environment.	Oil Chemicals Bacteria
2 <sup>nd</sup>	LS4.D Biodiversity and Humans	Chapter 20, A Sense of Wonder (MPPS)	How do humans affect the natural world?	I can explain how humans can affect the natural environment in harmful and helpful ways.	Environment Observations Nonliving Living Organisms

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<p>2nd</p>	<p>LS2.C Ecosystem Dynamics, Functioning, and Resilience          LS4.C Adaption          LS2.D Social Interactions and Group Behaviors</p>	<p><a href="http://www.resa.net/curriculum/curriculum/science/professionaldevelopment/ngss-pd/lesson-plans-exploring-ngss/">http://www.resa.net/curriculum/curriculum/science/professionaldevelopment/ngss-pd/lesson-plans-exploring-ngss/</a>  <b>Click on Animal Adaptation</b></p> <p><a href="http://concord.org/stem-resources/predator-prey-relationship-Predator &amp; Prey">http://concord.org/stem-resources/predator-prey-relationship-Predator &amp; Prey</a></p> <p><a href="http://www.pkwy.k12.mo.us/homepage/belfourth/File/Science/Info_on_Animal_Adaptations.pdf">http://www.pkwy.k12.mo.us/homepage/belfourth/File/Science/Info_on_Animal_Adaptations.pdf</a>  <b>Vocabulary</b></p>	<p>How do animals use adaptation to survive in their environment?</p>	<p>I can describe how different animals adapt to their environments and for what reasons.</p>	<p>Adaptation          Environment          Predator          Prey          Camouflage          Habitat          Instinct          Mimicry          Survival/survive          Behavior</p>
<p>2nd</p>	<p>LS3.A Inheritance of Traits          LS3.B Variation of Traits</p>	<p><a href="http://www.cpalms.org/Public/PreviewResource/Preview/26136">http://www.cpalms.org/Public/PreviewResource/Preview/26136</a></p> <p><b>Orange box on right has lesson plans</b></p>	<p>How can changes in the environment affect plants and animals abilities to survive?</p> <p>How is learned behavior in an animal different from its inherited behavior?</p>	<p>I can determine how environment affects plants and animals.</p> <p>I can distinguish the difference between animal behaviors that are learned and</p>	<p>Inherited Behavior          Learned Behavior          Observation</p>

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				inherited.	
2nd	LS4.A Evidence of Common Ancestry and Diversity	<a href="http://www.bozeman-science.com/ngs-ls4a-evidence-of-common-ancestry-diversity/">http://www.bozeman-science.com/ngs-ls4a-evidence-of-common-ancestry-diversity/</a>	Describe how some characteristics could give a species a survival advantage in a particular environment?		Diversity Unity Ancestor
2nd	LS4.B Natural Selection	<a href="http://www.cpalms.org/Public/PreviewResourceLesson/Preview/71558">http://www.cpalms.org/Public/PreviewResourceLesson/Preview/71558</a>  Orange box on right has lesson plans	How does natural select affect environmental change?	I can apply concepts of natural selection to predict the impact of environmental change.	Natural selection Competition Overproduction Genetic Environmental Change
3rd	ESS2.D Weather and Climate	Chapter 18, What Will the Weather Be? (EMPPS)	How can weather instruments help predict weather?	I can identify various weather instruments and explain how meteorologists use hem to predict weather.	Thermometer Wind vane Anemometer Hygrometer Barometer
3rd	ESS.3.B Natural Hazards	<a href="http://www.cpalms.org/Public/PreviewResourceLesson/Preview/45857">http://www.cpalms.org/Public/PreviewResourceLesson/Preview/45857</a>	How do natural hazards affect the environment?	I can identify natural hazards and how they affect the environment.	Flooding Hurricanes Tornadoes Wildfires

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