



MARIETTA CITY SCHOOLS FIRST GRADE SCIENCE PACING GUIDE

Instructional Segment:	Plants, Animals, and Weather Plants and Animals through the Year	Light and Sound What's that sound? Do you see what I see?	Magnets To Attract or Not To Attract
Estimated Time	24 Weeks or throughout the year	8 Weeks	4 Weeks
Crosscutting Concepts	<ul style="list-style-type: none"> • Patterns • Cause and Effect • Systems and System Models 	<ul style="list-style-type: none"> • Patterns • Cause and Effect • Energy and Matter 	<ul style="list-style-type: none"> • Patterns • Cause and Effect • Energy and Matter
Anchoring Phenomenon	Plants and animals change depending on seasons and weather conditions. Time Lapse video of Trees through a Year in 40 Seconds	Investigate light and sound understanding that objects that vibrate produce sound and light comes from many sources. Sounds and lights are also used to alert people. Utilize children's literature dealing with musical instruments and their sounds. How Do I See?	<ul style="list-style-type: none"> • Magnets can attract (pull) and repel (push) other magnets. Some objects move only when you touch them while others move without being touched. Move an object without letting students see the magnet. Allow students to freely explore with different magnets and objects. Let them generate questions. • Narrow in on a few that can be investigated in the classroom.
Core Ideas	<ul style="list-style-type: none"> • Plants have different parts • Plants and animals grow and change • Basic needs of plants and animals • Interactions, energy and dynamics • Cycles of matter and energy transfer in ecosystems • Ecosystem dynamics, functioning and resilience • Roles of water in Earth's surface processes • Weather and climate 	<ul style="list-style-type: none"> • Sound can make matter vibrate, and vibrating matter can make sound • Light is needed to see • Sources of light • Light and sound are used to communicate 	<ul style="list-style-type: none"> • When objects touch or collide, they push on one another and can change motion or shape • A bigger push or pull makes things go faster. Faster speeds during a collision can cause a bigger change in shape of the colliding objects.
Science and Engineering Practices	<ul style="list-style-type: none"> • Developing and using models • Planning and carrying out investigations • Analyzing and interpreting data • Asking questions and defining problems • Construction explanations and designing solutions 	<ul style="list-style-type: none"> • Asking questions and defining problems • Planning and carrying out investigations • Developing and using models • Obtaining, evaluating, and communicating information 	<ul style="list-style-type: none"> • Asking questions and defining problems • Planning and carrying out investigations • Developing and using models • Constructing explanations and designing solutions
GSE	S1L1.a, b, c; S1E1.a,b,c,d	S1P1.a,b,c,d,e	S1P2. a, b