

UNIT 4

Course: Language Arts/Science/SEL	Grade Level: 3rd Grade
Unit Title: Forces of Motion - Magnetism	Length of Unit: Until the end of the second trimester - Approximately 6 weeks
<p>Unit Summary: Students are able to determine the effects of balanced and unbalanced forces on the motion of an object and the cause and effect relationships of electric or magnetic interactions between two objects not in contact with each other. They are then able to apply their understanding of magnetic interactions to define a simple design problem that can be solved with magnets. Students will read a wide range of text in order to compare the choices authors make to support the central idea of their texts. Students will engage in research to build their background knowledge on a topic. Students will use the writing process to write an informative/explanatory piece that introduces the topic, develops the topic, connects ideas and provides a conclusion in order to inform/teach others based upon their research.</p> <p>SEL Throughout this unit, students will be asked to <u>monitor their progress and self-assess</u> their ability to identify and describe the causes and consequences of conflicts that occur in the classroom and apply constructive approaches for resolving these.</p>	
Stage 1- Desired Results	
<p>STANDARDS</p> <p>Priority: Science: 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.</p> <p>Language Arts: RL.3.2: Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral</p>	<p>Transfer</p> <p><i>Students will be able to independently use their learning to...</i></p> <p>TG1: Apply an understanding of magnetic interactions to find solutions to a real-world problem.</p> <p>TG2: Read a wide range of texts to draw conclusions as to how text features, search tools, and the parts of a story assist in locating information, making meaning of a text, and/or in determining how each successive part in a story builds on earlier sections.</p> <p>TG3: Engage in the research process on a topic of choice and draw on this research to write a detailed informative/explanatory text.</p>

and explain how it is conveyed through key details in the text.	Meaning	
<p>RI.3.2: Determine the main idea of a text; recount the key details and explain how they support the main idea.</p> <p>RL.3.5: Refer to parts of stories, dramas, and poems when writing or speaking about a text, using terms such as chapter, scene, and stanza; describe how each successive part builds on earlier sections.</p> <p>RI.3.5: Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.</p> <p>W.3.2: Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</p> <p>A. Introduce a topic and group related information together; include illustrations when useful to aid comprehension.</p> <p>B. Develop the topic with facts, definitions, and details.</p> <p>C. Use linking words and phrases (e.g., <i>also</i>, <i>another</i>, <i>and</i>, <i>more</i>, <i>but</i>) to connect ideas within categories of information.</p> <p>D. Provide a concluding statement or section.</p> <p>W.3.7: Conduct short research projects that build knowledge about a topic.</p>	<p>ENDURING UNDERSTANDINGS <i>Students will understand that...</i></p> <p>EU1: Each force acts on one particular object and has both strength and a direction. An object at rest typically has multiple forces acting on it, but they add to give zero net force on the object. Forces that do not sum to zero can cause changes in the object's speed or direction of motion. <i>(Cause and effect relationships are routinely identified, tested, and used to explain change.)</i></p> <p>EU2: Electric and magnetic forces between a pair of objects do not require that the objects be in contact. The sizes of the forces in each situation depend on the properties of the objects and their distances apart and, for forces between two magnets, on their orientation relative to each other. <i>(Cause and effect relationships are routinely identified, tested and used to explain change.)</i></p> <p>EU3: The patterns of an object's motion in various situations can be observed and measured; when that past motion exhibits a regular pattern, future motion can be predicted from it. <i>(Patterns of change can be used to make predictions.)</i></p> <p>EU4: Effective readers know the function of parts of stories, dramas, and poems (e.g.,</p>	<p>ESSENTIAL QUESTIONS <i>Students will continue to consider . . .</i></p> <p>EQ1: How do equal and unequal forces on an object affect the object?</p> <p>EQ2: How do electric and magnetic forces interact with objects?</p> <p>EQ3: How can we predict whether an object will continue to move, change how it moves or stop moving?</p> <p>EQ4: Why do we refer to parts of stories, dramas, and poems when writing or</p>

<p>SEL: Goal 1: Develop self-awareness and self-management skills to achieve school and life success.</p> <p>Goal 2: Use social-awareness and interpersonal skills to establish and maintain positive relationships.</p> <p>Goal 3: Demonstrate decision-making skills and responsible behaviors in personal, school, and community contexts.</p> <p>Supporting: Science: 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.</p> <p>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.</p> <p>Language Arts: RL.3.4: Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language.</p> <p>RI.3.4: Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 3 topic or</p>	<p>chapter, scene, stanza) and use this knowledge to help them see how each progress part builds on a previous section.</p> <p>EU5: Effective readers locate information on a specific topic by using text features and search tools (e.g., key words, sidebars, hyperlinks) in an efficient manner.</p> <p>EU6: Effective researchers begin by generating questions about a specific topic; they use these questions to guide and focus their research.</p> <p>EU7: We write informational/ explanatory text to provide information about a topic or to explain how to do something.</p> <p>EU8: Building relationships is an ongoing process; relationships are developed when we are able to compromise, be flexible with, and resolve conflicts with others.</p>	<p>speaking about a text? (RL.5)</p> <p>EQ5: How can text features help me make meaning of a text? (RI.5)</p> <p>EQ6: How do I find important information about a topic? (W.7)</p> <p>EQ7: Why do we write informational/ explanatory text? (W.2)</p> <p>EQ8: What does it take to get along with others? (SEL)</p>
<p style="text-align: center;">Acquisition</p>		
<p>Language Arts: RL.3.4: Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language.</p> <p>RI.3.4: Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 3 topic or</p>	<p><i>Students will know...</i></p> <p>K1: Academic Vocabulary</p> <p>Science K2: Objects in contact exert forces on each other.</p> <p>K3: Science findings are based on</p>	<p>Year-Long English/Spanish "I can" statements</p> <p><i>Students will be skilled at...</i></p> <p>Science S1: I can conduct science investigations using a variety of methods, tools, and techniques.</p>

<p>subject area.</p> <p>RL.3.7: Explain how specific aspects of a text's illustrations contribute to what is conveyed by the words in a story (e.g., create mood, emphasize aspects of a character or setting).</p> <p>RI.3.7: Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate an understanding of the text (e.g., where, when, why, and how key events occur).</p> <p>W.3.6 With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others.</p>	<p>recognizing patterns</p> <p>K4: Cause and effect relationships</p> <p>K5: Electric and magnetic forces between a pair of objects do not require that the objects be in contact</p> <p>K6: The size of an electric or magnetic force depends on the properties of the objects and their distances apart</p> <p>K7: The size of the force between two magnets depends on their orientation relative to each other</p> <p>Language Arts/Digital Literacy</p> <p>K8: Reading strategies</p> <p>K9: The parts of a story, drama, or poem</p> <p>K10: Text Features</p> <p>K11: The elements and structure of informative writing</p> <p>K12: Research and note taking strategies</p> <p>K13: The writing process</p> <p>SEL</p> <p>K14: Causes and consequences of conflicts</p> <p>K15: Problem solving strategies</p>	<p>S2: I can ask questions that can be investigated based on patterns such as cause and effect relationships.</p> <p>S3: I can make observations and/or measurements to produce data to serve as the basis for evidence.</p> <p>Language Arts/Digital Literacy</p> <p>S4: I know the function of parts of a story, drama, and poem and can use this knowledge to see how each progressive part builds on previous sections. (RL.5)</p> <p>S5: I can locate information on a specific topic by using text features and search tools in an efficient manner. (RI.5)</p> <p>S6: I can explain or provide information about a subject of idea(s) in an informational/explanatory piece. (W.2)</p> <ul style="list-style-type: none"> • I can choose only the details and information related to the topic. • I can introduce the topic and organize my writing in a sequential manner • I can elaborate upon ideas through the use of illustrations • I can include facts, definitions, and details in my writing. • I can use linking words so all the details flow together logically in my writing. • I can bring my paper to an end by providing a concluding statement or
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		<p>section.</p> <p>S7: I can determine the main idea of a text. (RI.2)</p> <p>S8: I can distinguish online messages and their intentions. (Info/Dig Lit Goal 1)</p> <p>S9: I can report uncomfortable situations to an adult. (Info/Dig Lit Goal 1)</p> <p>S10: I can identify literary awards appropriate for my age. (Info/Dig Lit Goal 2)</p> <p>S11: I can compare content and ideas in different resources. (Info/Dig Lit Goal 3)</p> <p>SEL</p> <p>S12: I can describe causes and consequences of conflicts in the classroom.</p> <p>S13: I can apply constructive approaches in resolving conflicts in the classroom.</p>