

Unfield Trip Resources C.C.S.S. & N.G.S.S.: Third Grade Conections to Amazeum Exhibits

#### Third Grade

Exhibit Areas	Common Core Standards	Next Generation Science Standards
Nickelodeon Play Lab	<ul> <li>RI.3.3 - Describe the relationship between a series of historical events, scientific ideas or concepts, or step in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.</li> <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 resources; take brief notes on sources and sort evidence into provided categories.</li> <li>MP.2 - Reason abstractly and quantitatively.</li> </ul>	<ul> <li>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.</li> <li>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.</li> <li>3-PS2-3 - Ask questions to determine cause and effect relationships of electric or magnetic between two objects not in contact with each other.</li> <li>PS2.A: Forces and Motion: 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 and cause changes in the object's speed or direction of motion. The pattern of an object's motion in various situations can be observed and measured; when the past motion exhibits a regular pattern, future motion can be predicted from it.</li> <li>PS.B: Types of interactions: Objects in contact exert forces on each other. Electric and magnetic forces between a pair of objects do not require that the objects of the objects and their distances apart and, for forces between two magnets, on their orientation relative to each other.</li> </ul>

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Nature Valley Water Amazements	<ul> <li>RI.3.3 - Describe the relationship between a series of historical events, scientific ideas or concepts, or step in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.</li> <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 resources; take brief notes on sources and sort evidence into provided categories.</li> <li>MP.2 - Reason abstractly and quantitatively.</li> </ul>	<ul> <li>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.</li> <li>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.</li> <li>3-PS2-3 - Ask questions to determine cause and effect relationships of electric or magnetic between two objects not in contact with each other.</li> <li>PS2.A: Forces and Motion: 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 and cause changes in the object's speed or direction of motion. The pattern of an object's motion in various situations can be observed and measured; when the past motion exhibits a regular pattern, future motion can be predicted from it.</li> <li>PS.B: Types of interactions: Objects in contact exert forces on each other. 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.</li> </ul>

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General Mills Lift, Load, and Haul	<ul> <li>RI.3.3 - Describe the relationship between a series of historical events, scientific ideas or concepts, or step in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.</li> <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 resources; take brief notes on sources and sort evidence into provided categories.</li> <li>MP.2 - Reason abstractly and quantitatively.</li> </ul>	<ul> <li>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.</li> <li>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.</li> <li>3-PS2-3 - Ask questions to determine cause and effect relationships of electric or magnetic between two objects not in contact with each other.</li> <li>PS2.A: Forces and Motion: 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 and cause changes in the object's speed or direction of motion. The pattern of an object's when the past motion exhibits a regular pattern, future motion can be predicted from it.</li> <li>PS.B: Types of interactions: Objects in contact exert forces on each other. 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.</li> </ul>

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Cave & Canopy Climber	<ul> <li>RI.3.3 - Describe the relationship between a series of historical events, scientific ideas or concepts, or step in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.</li> <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 resources; take brief notes on sources and sort evidence into provided categories.</li> <li>MP.2 - Reason abstractly and quantitatively.</li> </ul>	<ul> <li>3-LS2-1 - Construct an argument that some animals form groups that help members survive.</li> <li>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.</li> <li>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.</li> <li>LS2.C: Ecosystem Dynamics, Functioning, and Resilience.</li> <li>LS2.D: Social Interactions and Groups.</li> <li>LS4.A: Evidence of Common Ancestry and Diversity.</li> <li>LS4.C: Adaptation.</li> <li>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.</li> <li>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.</li> <li>3-LS3-2 - Use evidence to support the explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing.</li> <li>LS3.B: Growth and Development of Organisms.</li> <li>LS3.B: Variation of Traits.</li> <li>LS4.B: Natural Selection.</li> </ul>

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The Homestead Cabin & Farm	<ul> <li>RI.3.3 - Describe the relationship between a series of historical events, scientific ideas or concepts, or step in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.</li> <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 resources; take brief notes on sources and sort evidence into provided categories.</li> <li>MP.2 - Reason abstractly and quantitatively.</li> </ul>	<ul> <li>3-LS2-1 - Construct an argument that some animals form groups that help members survive.</li> <li>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.</li> <li>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.</li> <li>LS2.C: Ecosystem Dynamics, Functioning, and Resilience.</li> <li>LS2.D: Social Interactions and Groups.</li> <li>LS4.A: Evidence of Common Ancestry and Diversity.</li> <li>LS4.C: Adaptation.</li> <li>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.</li> <li>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.</li> <li>3-LS3-2 - Use evidence to support the explanation that traits can be influenced by the environment.</li> <li>3-LS3-2 - 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.</li> <li>LS3.A: Inheritance of Traits.</li> <li>LS3.B: Variation of Traits.</li> <li>LS3.B: Natural Selection.</li> </ul>

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The 3M Tinkering Hub	<ul> <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>MP.2 - Reason abstractly and quantitatively.</li> <li>MP.4 - Model with mathematics.</li> <li>MP.5 - Use appropriate tools strategically.</li> </ul>	<ul> <li>J-ETS1-1 - Define and design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.</li> <li>J-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.</li> <li>J-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.</li> <li>ETS1.A: Defining and Delimiting Engineering Problems: Possible solutions to a problem are limited by available solution is determined by considering the desired features of a solution. Different proposals for solutions can be compared on the basis of how well each one meets the specified criteria for success or how well each takes the constraints into account.</li> <li>EST1.B: Developing Possible Solutions: Research on a problem should be carried out before beginning to design a solution involves investigating how well it performs under a range of likely conditions. At whatever stage, communicating with peers about proposed solutions is an important part of the design process, and shared ideas can lead to improved designs. Tests are often designed to identify failure points or difficulties, which suggest the elements of design that need to be improved.</li> <li>ETSI.C: Optimizing the Design Solution: Different solutions need to be tested in order to determine which of them best solves the problem, given the criteria and the constraints.</li> </ul>

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Outdoor Playscape	<ul> <li>RI.3.3 - Describe the relationship between a series of historical events, scientific ideas or concepts, or step in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.</li> <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 resources; take brief notes on sources and sort evidence into provided categories.</li> <li>MP.2 - Reason abstractly and quantitatively.</li> <li>MP.4 - Model with mathematics.</li> <li>MP.5 - Use appropriate tools strategically.</li> </ul>	<ul> <li>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.</li> <li>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.</li> <li>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.</li> <li>PS2.A: Forces and Motion: 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 and cause changes in the object's speed or direction of motion. The pattern of an object's speed or direction of motion are be observed and measured; when the past motion exhibits a regular pattern, future motion can be predicted from it.</li> <li>PS.B: Types of interactions: Objects in contact exert forces on each other. 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.</li> <li>3-LS2-1 - 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.</li> </ul>

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Energizer Weather & Nature	<ul> <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>MP.2 - Reason abstractly and quantitatively.</li> <li>MP.5 - Use appropriate tools strategically.</li> </ul>	<ul> <li>3-ESS2-1 - Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season.</li> <li>3-ESS2-2 - Obtain and combine information to describe climates in different regions of the world.</li> <li>3-ESS3-1 - Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard.</li> <li>ESS2.D: Weather and Climate: Scientists can record patterns of the weather across different time and areas so that they can make predictions about what kind of weather might happen next. Climate describes a range of an area's typical weather conditions and the extent to which those conditions vary over years.</li> <li>ESS3.B: Natural Hazards: A variety of natural hazards but can take steps to reduce their impact.</li> </ul>

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