

**Magnuson Nature Programs- Life in the Garden field trip- NGSS Correlations K-2**

Field Trip Activity	Disciplinary Core Ideas	Crosscutting Concepts	Science and Engineering Practices	MNP Objectives
<p><b>Digging into Decomposition:</b> Students will learn about the role of decomposers in decomposition and soil building through guided conversation and exploration of the compost in the worm bin. Students will have a chance to make their own discoveries in the worm bin and identify some of the invertebrates that they find there, and keep track of the decomposers that they find on their decomposers track-sheet.</p>	<p>LS1.A: All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water and air. Plants also have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow. (1-LS1-1)</p> <p>LS1.C: All animals need food in order to live and grow. They obtain their food from plants or from other animals. Plants need water and light to live and grow. (K-LS1-1)</p>	<p>Structure and Function: The shape and stability of structures of natural and designed objects are related to their function(s).</p> <p>Systems and System Models: Objects and organisms can be described in terms of their parts. Systems in the natural and designed world have parts that work together.</p>	<p>Asking Questions and Defining Problems: Ask questions based on observations to find more information about the natural and/or designed world(s). Ask and/or identify questions that can be answered by an investigation.</p> <p>Planning and Carrying out Investigations: Make observations (firsthand or from media) and/or measurements to collect data that can be used to make comparisons. Make predictions based on prior experiences.</p> <p>Analyzing and Interpreting Data: Record information (observations, thoughts, and ideas). Use and share pictures, drawings, and/or writings of observations. Use observations (firsthand or from media) to describe patterns and/or relationships in the natural and designed world(s) in order to answer scientific questions and solve problems. Compare predictions (based on prior experiences) to what occurred (observable events). Record information (observations, thoughts, and ideas).</p> <p>Constructing Explanations and Designing Solutions: Use information from observations (firsthand and from media) to construct an evidence-based account for natural phenomena.</p> <p>Obtaining, Evaluating, and Communicating Data: Read grade-appropriate texts and/or use media to obtain scientific and/or technical information to determine patterns in and/or evidence about the natural and designed world(s).</p>	<p>(Students will:)</p> <p>Understand that healthy soil is essential in order for plants to be healthy.</p> <p>Be able to identify micro and macro organisms in the worm bin compost, and understand that each is important to the health of the whole soil food chain (food web).</p>
	<p>LS4.D There are many different kinds of living things in any area, and they exist in different places on land and in water. (2-LS4-1)</p> <p>ESS3.A: Living things need water, air, and resources from the land, and they live in places that have the things they need. Humans use natural resources for everything they do. (K-ESS3-1)</p>	<p>Patterns: Patterns in the natural and human designed world can be observed, used to describe phenomena, and used as evidence.</p> <p>Energy and Matter: Flows, Cycles, and Conservation: Objects may break into smaller pieces, be put together into larger pieces, or change shapes.</p> <p>Scale, proportion, and quantity: Relative scales allow objects and events to be compared and described (e.g., bigger and smaller; hotter and colder; faster and slower).</p> <p>Stability and Change: Some things stay the same while other things change. Things may change slowly or rapidly.</p> <p>Cause and Effect: Events have causes that generate observable patterns.</p>	<p>Analyzing and Interpreting Data: Use observations (firsthand or from media) to describe patterns and/or relationships in the natural and designed world(s) in order to answer scientific questions and solve problems. Compare predictions (based on prior experiences) to what occurred (observable events).</p>	
<p><b>Snack Walk:</b> Students will first explore an area planted with native plants that are good food sources for wildlife, and see if they can find any evidence of food sources that wildlife might snack on. They will then get a chance to try a variety of vegetables and herbs from the garden to do a taste test of the garden, and participate in garden stewardship by helping to plant or take care of the plants there.</p>	<p>LS1.A: All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water and air. Plants also have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow. (1-LS1-1)</p>	<p>Patterns: Patterns in the natural and human designed world can be observed, used to describe phenomena, and used as evidence.</p>	<p>Analyzing and Interpreting Data: Use observations (firsthand or from media) to describe patterns and/or relationships in the natural and designed world(s) in order to answer scientific questions and solve problems. Compare predictions (based on prior experiences) to what occurred (observable events).</p>	<p>Understand that providing wildlife habitat within the community garden benefits both the animals who utilize the habitat, and the gardening goals of the people who use the space.</p>

<p>LS1.C: All animals need food in order to live and grow. They obtain their food from plants or from other animals. Plants need water and light to live and grow. (K-LS1-1)</p> <p>LS2.A Plants depend on water and light to grow. (2-LS2-1)</p> <p>LS4.D There are many different kinds of living things in any area, and they exist in different places on land and in water. (2-LS4-1)</p> <p>ESS3.A: Living things need water, air, and resources from the land, and they live in places that have the things they need. Humans use natural resources for everything they do. (K-ESS3-1)</p>	<p>Cause and Effect: Events have causes that generate observable patterns.</p> <p>Systems and System Models: Objects and organisms can be described in terms of their parts. Systems in the natural and designed world have parts that work together.</p>	<p>Asking Questions and Defining Problems: Ask questions based on observations to find more information about the natural and/or designed world(s).</p> <p>Constructing Explanations and Designing Solutions: Use information from observations (firsthand and from media) to construct an evidence-based account for natural phenomena.</p> <p>Planning and Carrying out Investigations: Make observations (firsthand or from media) and/or measurements to collect data that can be used to make comparisons. Make predictions based on prior experiences.</p>	<p>Be encouraged to eat and enjoy fresh, organic, nutritious food crops.</p> <p>Know how to safely pick food crops so that they will continue to bear.</p>	
<p>Perfect Plant Protection: Students will explore the childrens garden and learn about plants that protect themselves from being eaten by animals through a variety of adaptations, including thorns, fuzzy textures, and strong chemical odors and flavors. Students will then get a chance to take some of the plants that protect themselves through odors home with them by creating a "sniffer cup."</p>	<p>LS1.A: All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water and air. Plants also have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow. (1-LS1-1)</p> <p>LS1.C: All animals need food in order to live and grow. They obtain their food from plants or from other animals. Plants need water and light to live and grow. (K-LS1-1)</p> <p>LS4.D There are many different kinds of living things in any area, and they exist in different places on land and in water. (2-LS4-1)</p>	<p>Structure and Function: The shape and stability of structures of natural and designed objects are related to their function(s).</p> <p>Systems and System Models: Objects and organisms can be described in terms of their parts. Systems in the natural and designed world have parts that work together.</p> <p>Patterns: Patterns in the natural and human designed world can be observed, used to describe phenomena, and used as evidence.</p>	<p>Asking Questions and Defining Problems: Ask questions based on observations to find more information about the natural and/or designed world(s). Ask and/or identify questions that can be answered by an investigation.</p> <p>Analyzing and Interpreting Data: Use observations (firsthand or from media) to describe patterns and/or relationships in the natural and designed world(s) in order to answer scientific questions and solve problems. Compare predictions (based on prior experiences) to what occurred (observable events).</p> <p>Constructing Explanations and Designing Solutions: Use information from observations (firsthand and from media) to construct an evidence-based account for natural phenomena.</p>	<p>Understand the ways that plants have evolved to protect themselves from herbivores, and how humans have learned to utilize some of those protection methods to meet our own needs.</p>
<p>Overarching message:</p>	<p>ESS3.C - Things that people do to live comfortably can affect the world around them. But they can make choices that reduce their impacts on the land, water, air, and other living things. (K-ESS3-3) (secondary to K-ESS2-2)</p>	<p>Have their curiosity about soil organisms and plants inspired, and develop empathy and respect for these organisms.</p> <p>Develop the art of watching and listening, and recognize the rewards that result.</p> <p>Be empowered to see their own schoolyard and/or backyard as having the potential to grow healthy and delicious food.</p> <p>Be empowered to instigate and carry out stewardship activities in their own community that will benefit soil and plant health.</p>		