



Marietta City Schools

District Unit Planner

Kindergarten Science

Theme	<i>Unit 3 Living Non-Living</i>	Unit duration	<i>6 Weeks</i>
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Mastering Content and Skills through INQUIRY (Establishing the purpose of the Unit): *What will students learn?*

GSE Standards/3D Science Elements

SKL1. Obtain, evaluate, and communicate information about how organisms (alive and not alive) and non-living objects are grouped.

- Construct an explanation based on observations to recognize the differences between organisms and nonliving objects.
- Develop a model to represent how a set of organisms and nonliving objects are sorted into groups based on their attributes

Unit Objectives:

Students will develop an understanding of the difference between living plants and animals and those no longer alive, and non-living objects.
Students will understand that living animals and plants do or did move, breathe, grow, and reproduce to classify objects.
Students will differentiate between objects made from animals or plants that were once alive and objects made from materials that were never alive.
Students will understand that animals and plants that were once living will die, but other objects were never alive.
Students will understand that living animals and plants need air, water, and food to survive

Unit Phenomena: Unit Phenomena: Provide students with examples of living plants, dead plants and plastic plants. Discuss the differences between them. In the absence of real examples, please use these [images](#).

Page Keeley Probes: These probes can be used as phenomena. They are intended to elicit student understanding about science concepts. Starting a unit or lesson with a probe will help you uncover misconceptions and see what students already know about a topic. Using a probe at the beginning of a lesson and then at the end of the lesson serves the purposes of pretesting and then formatively evaluating student thinking. Below is a list of probes from Page Keeley's book *Uncovering Student Ideas in Primary Science*, that are appropriate for this unit. This book has been purchased for your grade level by the Office of Academic Achievement and can be found in your media center.

- Is it Living?
- Is It an Animal?
- Is It a Plant?
- Big and Small Seeds

<p>Science & Engineering Practices:</p> <ul style="list-style-type: none"> • Asking questions and defining problems • Developing and using models • Planning and carrying out investigations • Constructing explanations and designing solutions • Engaging in argument from evidence • Obtaining, evaluating, and communicating information 	<p>Disciplinary Core Ideas:</p> <ul style="list-style-type: none"> • All animals need food to live and grow. • Plants need water and light to live and grow. • Animals can move around, but plants cannot. • Living things can survive only where their needs are met. • Living things exist in different places on land and in water. 	<p>Crosscutting Concepts:</p> <ul style="list-style-type: none"> • Patterns • Energy and Matter • Structure and Function • Stability and Change
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Misconceptions: Students may believe that dead matter is the same as non-living; Clarify that living things die (change or go through a life cycle); non-living things were never living (do not change or go through a life cycle).

Math/ELA Connections/STEM Connections

ELAGSEKL6 Use words and phrases acquired through conversations, reading and being read to, and responding to texts.

ELAGSEKSL4 Describe familiar people, places, things, and events and, with prompting and support, provide additional detail.

ELAGSEKSL5 Add drawings or other visual displays to descriptions as desired to provide additional detail.

ELAGSEKSL6 Speak audibly and express thoughts, feelings, and ideas clearly.

ELAGSEKW1 Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are “writing” about and state an opinion or preference about the topic or book (e.g., My favorite book is...).

ELAGSEKW2 Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.

ELAGSEKW3 Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened.

MGSEK.MD.1 Describe several measurable attributes of an object, such as length or weight. For example, a student may describe a shoe as, “This shoe is heavy! It is also really long!”

MGSEK.MD.2 Directly compare two objects with a measurable attribute in common, to see which object has “more of ”/“less of” the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter. MGSEK.MD.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.

STEM: Small/Large Group Activities:

- Make a classroom book: Use child drawn pictures of their process for gardening and their observations for the Nature Walk.

- How things grow and change (Life cycles): o Have pictures of animals and plants that change over time for each stage. If possible, grow them in your classroom. Butterflies or tadpoles are some examples for animals. Make observations about plants such as counting the rings inside a tree trunk to determine tree age or how leafy trees shed leaves.
- Living and nonliving-picture/object sort, characteristics of living things: Have children sort through various pictures of things that are alive (plants and animals), and non-living things (plastics, rocks, dirt, sun, moon, water, fire, etc.). Note: You might add things that were alive at one time (wooden table, foods we eat, paper, etc.) especially if you have talked about life cycles and do not find the subject morbid.
- Sprouts: Add bean sprouts to baggies with a damp paper towel to watch their roots grow.
- Picking sensory plants: soft touch mosses, aromatic herbs like mint or rosemary, colorful flowers of different sizes and shapes (include bold flowers that could be taken apart to look for different parts of a flower; petal, stamen, pistil, and sepal), and veggies that could be eaten later in a nutritional activity.
- Plant variety: Plant many of the same type of plant and grow them in different environments. Predict, measure, and chart: light/dark, varying degrees of water, different types of soil.
- Native Walk: Take clipboards (cardboard with rubber bands are inexpensive to make and replace) outside on a walk, draw pictures of what you see that is alive, where their habitat is, and what they eat if you can (some might be speculation or based on previous knowledge).
- Dig in the dirt: Take a trowel, dig into the dirt, and make the above observations.
- Post word and pictures: Write words for the children underneath their pictures and post them in the classroom possibly near the science area, next to the window or as a book available in the library.
- Have students write their own classroom book: If you have access to water, you might check local fish runs or go after water bugs then make your own classroom book, “In the Cool, Clean Water” or a forest and write “In the Tall, Tall Trees”. Use your imagination for a local backyard or easily accessible habitat.
- Sorting: Sort other living things by their habitats-things that live in trees/water/on the ground/in the ground, etc.

[Discovery Education Science Techbook STEM Starters](#) – Click [here](#) to find 2 STEM starters for your students

Discovery Education Science Techbook (log into DE using your MCS Google credentials before accessing these links)

You will find station rotation activities on the Explore page of each Techbook unit.

[Physical Characteristics](#)

[How Do Living Things Change?](#)

[What Do Living Things Need?](#)

Hands-On Discovery Education Activities

[Life Cycle Order](#)

[Baby and Adult Animals](#)

[Butterfly Pasta Life Cycle](#)

[Animal Groups](#)

DE Class Activities

[Being Alive Fundamental](#)

[Plant Observation Journal](#)

Essential Questions

<p>Factual—</p> <p>What is a living thing? What is a nonliving thing?</p> <p>Inferential—</p> <p>How do living and nonliving things differ? What are the characteristics of living things?</p> <p>Critical Thinking-</p> <p>Do living and nonliving things help one another?</p>	
Tier II Words- High Frequency Multiple Meaning	Tier III Words- Subject/ Content Related Words
attributes, classify, features, similarity, difference	characteristics, organism, living, nonliving
Assessments	
<p>How Do Living Things Change Constructed Response Venn Diagram Living Things on the Farm</p> <p>Teachers may access assessment documents in the OAA Course in the grade level folder.</p>	

Objective or Content	Learning Experiences	Differentiation Consideration
<p>CLE 1: SKL1. Obtain, evaluate, and communicate information about how organisms (alive and not alive) and non-living objects are grouped.</p>	<p>MCS Living and Non-Living Model Lesson Students will create a book sorting living and nonliving things by comparing “real” organisms to their inanimate counterparts. For example, a bear compared to a stuffed animal bear.</p>	<p>Student Choice Performance Tasks Reflection and Goal Setting Learning Stations Choice Boards Formative Probes</p>

<p>CLE 2: SKL1. Obtain, evaluate, and communicate information about how organisms (alive and not alive) and non-living objects are grouped.</p>	<p>GaDOE Instructional Segment Students will explore the characteristics of living things and apply their understanding to design a safe place for bees and butterflies to live. This segment will easily connect to the earth materials and organisms segments during the elaborate portion.</p>	<p>Science Journaling Multi-sensory activities Assistive Technology Flexible Grouping Multiple Means of Representation</p>
<p>Recommended High Quality Complex Text By Lexile Band</p>		
<p><i>Do You Know Which Ones Will Grow? By Tom Slaughter</i> <i>What Kind of Living Thing is IT? By Bobbie Kalman</i> <i>What is a Living Thing? By Bobbie Kalman</i> <i>Living and Nonliving. By Angela Royston</i> <i>What's Alive? By Kathleen Weidner Zoefeld</i> <i>Living Things. By Joan Chapman</i></p>		