Unit Overview

Unit Title: Living Things | **Content Area:** Life Science | **Grade Level:** K

Unit Summary: Students will be introduced to various plants and animals, as well as their needs for survival to expose and prepare them for Animals Two by Two Unit as well as the incorporation of the NGS. The cross cutting concepts; patterns in the natural and human designed world can be observed, used to describe phenomena, and used as evidence are organizing concepts for this unit. The practices students will engage in are (K-LS1-1), (1-LS3-1).

Unit Essential Questions:

- What do living things need to survive?
- What do animals need to survive?
- What do plants need to survive?

Unit Enduring Understandings:

- All animals need food in order to live and grow.
- Land animals need air, water, food, and shelter.
- Water animals need the appropriate kind of water, oxygen from the water, food, and shelter.

Possible Student Misconceptions:

- Students may have misconceptions correctly distinguishing the difference between various non-living and living things, as well as their basic needs for survival.

NJCCCS: 5.3.2.A.1., 5.3.2.B.1, 5.3.2.B.2 , 5.3.2.C.1, 5.3.2.C.2, 5.3.2.D.1, 5.3.2.E.1, 5.3.2.E.2, 5.4.2.G.3

NGSS Performance Expectations: Students who demonstrate understanding can…

- K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.

Primary CCSS ELA/Literacy Connections: SL.K.3,.5, W.K.2,.7

Primary CCSS Mathematics Connections: K.MD.A.2

Lesson Pace & Sequence

Lesson Title/Number: Living Things/ 1 | **Learning Objective(s):** SWBAT correctly identify living things as well as their basic needs for survival | **Lesson Duration:** 1 week/ 160 minutes

Learning Cycle ***What lesson elements will support students' progress towards mastery of the learning objectives(s)?*** ****Elements do not have to be in conducted in sequence.***	***Learning Activities*** ***What specific learning experiences will support ALL students' progress towards mastery of the learning objective(s)?***	***Resources/Materials*** ***What curricular resources/materials are available to facilitate the implementation of the learning activities?***	***Science and Engineering Practices*** ***What specific practices do students need to use in order to progress towards mastery of the learning objective(s)?***	***Disciplinary Core Ideas*** ***What core ideas do students need to understand in order to progress towards mastery of the learning objective(s)?***	***Crosscutting Concepts*** ***What crosscutting concepts will enrich students' application of practices and their understanding of core ideas?***
Elicit: How will you access students' prior knowledge?	Students' prior knowledge will be accessed through topic introduction and circle time discussions. (Text-to-self connections, text-to-text connections, and text-to-world connections. Please note to record responses on an anchor chart to refer back to in following lessons)		Planning and Carrying Out Investigations: -Make predictions based on prior experiences.		

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Engage: How will you capture students' interest and get students' minds focused on the concept/topic?	Students will work in groups of 4-6 students to determine which given pictures, flashcards, and Smartboard interactives are living things and which are not living things. This activity can be extended by further questioning the students; what each living thing needs to survive? Etc.	• STC (Science and Technology Concepts) Teacher Guides • Flashcards • Various printed pictures/illustrations of living things • Smartboard Technology	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.	LS1: From Molecules to Organisms: Structures and Processes: -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 in order to live and grow. (K-LS1-1) ESS3: Earth and Human Activity -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)	Patterns in the natural and human designed world can be observed and used as evidence. (K-LS1-1)

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Evaluate: How will students demonstrate their mastery of the learning objective(s)?	Teacher will assess students mastery based on predetermined correlating questions/exit ticket.	• Little Worksheets Printables: https://www.google.com/url?q=http://www.littleworksheets.com/science.html	Analyzing and Interpreting Data: -Record information (observations, thoughts, and ideas). -Use and share pictures, drawings, and/or writings of observations.		
Extend: How will students deepen their conceptual understanding through use in new context?	Students interactively or cut and paste living things and animals, as well as classify them as living or non-living/animal or not, based on described characteristics.	• Living or Non-Living?: http://www.sciencelearn.org.nz/Science-Stories/Earthworms/Living-or-non-living			

Lesson Title/Number: Animals/ 2	**Learning Objective(s):** SWBAT correctly identify living things as well as their basic needs for survival	**Lesson Duration:** 1 week/ 160 minutes

Learning Cycle ***What lesson elements will support students' progress towards mastery of the learning objectives(s)?*** ****Elements do not have to be in conducted in sequence.***	***Learning Activities*** ***What specific learning experiences will support ALL students' progress towards mastery of the learning objective(s)?***	***Resources/Materials*** ***What curricular resources/materials are available to facilitate the implementation of the learning activities?***	***Science and Engineering Practices*** ***What specific practices do students need to use in order to progress towards mastery of the learning objective(s)?***	***Disciplinary Core Ideas*** ***What core ideas do students need to understand in order to progress towards mastery of the learning objective(s)?***	***Crosscutting Concepts*** ***What crosscutting concepts will enrich students' application of practices and their understanding of core ideas?***
Elicit: How will you access students' prior knowledge?	Teacher will access students' prior knowledge through topic introduction and circle time discussions. (Text-to-self connections, text-to-text connections, and text-to-world connections. Please note to record responses on an anchor chart to refer back to in following lessons)		Planning and Carrying Out Investigations: -Make predictions based on prior experiences.		

Engage: How will you capture students' interest and get students' minds focused on the concept/topic?	Students' interests and minds will be focused on animals as they engage in a game that requires them to match animals in different stages of their life cycle with a focus on baby to adult. (See Resources/Materials)	• Animal Match Game http://www.sheppardsoftware.com/preschool/animals.htm http://www.sheppardsoftware.com/ http://pbskids.org/mamamirabelle/games_photo_safari.html	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.		
Explore: What hands-on/minds-on common experience(s) will you provide for students?	Students will work in groups of 4-6 students to determine which given pictures, flashcards, and Smartboard interactives are in fact animals and what animal they are. This activity can be extended by further questioning the students; what does each animal need to survive? Etc. (See Resources/Materials)	• Animal Match Game: http://www.sheppardsoftware.com/preschool/animals.htm http://www.sheppardsoftware.com/ http://pbskids.org/mamamirabelle/games_photo_safari.html	Analyzing data in K-2 builds on prior experiences and progresses to collecting, recording, and sharing observations. Use observations (first-hand or from media) to describe patterns in the natural world in order to answer scientific questions. (K-LS1-1) Scientific knowledge is based on empirical evidence. Scientists look for patterns and order when making observations about the world. (K-LS1-1)	LS1.C; Organization from matter and energy flow in organisms. 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 in order to live and grow. (K-LS1-1)	Patterns in the natural and human designed world can be observed and used as evidence. (K-LS1-1)
Evaluate: How will students demonstrate their mastery of the learning objective(s)?	Students demonstrate their mastery of the learning objective through teacher questioning, anecdotal notes, and attained scores of the above mentioned game.		Analyzing and Interpreting Data: -Record information (observations, thoughts, and ideas). -Use and share pictures, drawings, and/or writings of observations		

Lesson Title/Number: Plants/ 3	**Learning Objective(s):** SWBAT correctly identify living things as well as their basic needs for survival.	**Lesson Duration:** 1 week/ 160 minutes

Learning Cycle ***What lesson elements will support students' progress towards mastery of the learning objectives(s)?*** ****Elements do not have to be in conducted in sequence.***	***Learning Activities*** ***What specific learning experiences will support ALL students' progress towards mastery of the learning objective(s)?***	***Resources/Materials*** ***What curricular resources/materials are available to facilitate the implementation of the learning activities?***	***Science and Engineering Practices*** ***What specific practices do students need to use in order to progress towards mastery of the learning objective(s)?***	***Disciplinary Core Ideas*** ***What core ideas do students need to understand in order to progress towards mastery of the learning objective(s)?***	***Crosscutting Concepts*** ***What crosscutting concepts will enrich students' application of practices and their understanding of core ideas?***
Elicit: How will you access students' prior knowledge?	Students' prior knowledge will be accessed through topic introduction and circle time discussions. (Text-to-self connections, text-to-text connections, and text-to-world connections. Please note to record responses on an anchor chart to refer back to in following lessons)		Planning and Carrying Out Investigations: -Make predictions based on prior experiences.		
Engage: How will you capture students' interest and get students' minds focused on the concept/topic?	Students will correctly identify the parts of a plant and discuss their functions, as well as what we need to do to take care of the plant and ensure survival.	• Science Kids: How Plants Grow http://www.sciencekids.co.nz/gamesactivities/plantsgrow.html			
Explore: What hands-on/minds-on common experience(s) will you provide for students?	Students will plant and illustrate/journal their observations on a daily basis. (See Resources/Materials)	• Science Journals: http://www.kidpointz.com/worksheets-for-kids/science/view/observation-worksheet-kids.pdf http://www.fossweb.com/delegate/ssi-foss-ucm/ucm?dDocName=D567879	Analyzing and Interpreting Data: -Record information (observations, thoughts, and ideas). -Use and share pictures, drawings, and/or writings of observations		

Elaborate: How will students apply their learning and develop a more sophisticated understanding of the concept/topic?	Students will work in groups of 4-6 students to determine which given pictures, flashcards, and Smartboard interactives are in fact plants and what each plant needs to survive.	• Plant Life Cycles: http://www.brainpopjr.com/science/plants/plantlifecycle/preview.weml	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.	LS1.C; Organization from matter and energy flow in organisms. 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 in order to live and grow. (K-LS1-1)	Patterns in the natural and human designed world can be observed and used as evidence. (K-LS1-1)
Evaluate: How will students demonstrate their mastery of the learning objective(s)?	Teacher will assess student mastery through students' verbal responses and journal recordings.	• Life Cycles: http://www.sciencekids.co.nz/gamesactivities/lifecycles.html	Analyzing and Interpreting Data: -Record information (observations, thoughts, and ideas). -Use and share pictures, drawings, and/or writings of observations		