EPSD Curriculum and HMH SCIENCE DIMENSIONS 2018 Alignment TEMPLATE

GRADE Kindergarten

Unit 3: Sun Warms Earth
Marking Period:

NGSS Overview:

The performance expectations in kindergarten help students formulate answers to questions such as: "What happens if you push or pull an object harder? Where do animals live and why do they live there? What is the weather like today and how is it different from yesterday?" Kindergarten performance expectations include PS2, PS3, LS1, ESS2, ESS3, and ETS1.

With the Disciplinary Core Ideas, students are expected to develop understanding of patterns and variations in local weather and the purpose of weather forecasting to prepare for, and respond to, severe weather. Students are able to apply an understanding of the effects of different strengths or different directions of pushes and pulls on the motion of an object to analyze a design solution. Students are also expected to develop understanding of what plants and animals (including humans) need to survive and the relationship between their needs and where they live.

The crosscutting concepts of patterns; cause and effect; systems and system models; interdependence of science, engineering, and technology; and influence of engineering, technology, and science on society and the natural world are called out as organizing concepts for these disciplinary core ideas. In the kindergarten performance expectations, students are expected to demonstrate grade-appropriate proficiency in asking questions, developing and using models, planning and carrying out investigations, analyzing and interpreting data, designing solutions, engaging in argument from evidence, and obtaining, evaluating, and communicating information. Students are expected to use these practices to demonstrate understanding of the core ideas.

Performance Expectations:	**HMH Science Dimensions Program Resources**
K-LS1-1: Use observations to describe patterns of what plants and animals (including humans) need to survive.	**Unit 3: Plants and Animals** **Unit Video** (a hummingbird sticking into a flower); **Unit Overview** p. 71; **Vocabulary** p. 73; **Connecting with NGSS** 73J; **Unit Project** 73K; **Unit Performance Task** pp. 138-139; **Unit Review** pp. 140-142

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K-ESS3-1: Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live.

K-ESS2-2: Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.

Objectives:

Lesson 1: Use observations as evidence to explain what plants need to live and grow.

Lesson 2: Use observations as evidence to explain what animals need to live and grow.

Lesson 3: Use models to explain where plants and animals live, and that they are part of a system with parts that work together in the natural world.

Lesson 4: Use evidence to explain how plants and animals can change where they live to meet their needs.

Instructional Days: 22 Days for Core; 38 Days for Comprehensive

Standard for all Units: Interactive Glossary (D); Leveled Readers (D); Beginning-of-Year Test (D/P); Unit Pretest (D/P); Lesson Quizzes (D); Unit Review (D/P); Unit Test (D/P)

Note: Refer to the Curriculum Alignment Common Language (CACL) Guide to decipher acronyms.

Lesson 1: What Do Plants Need? pp. 74-89	**Lesson 2:** What Do Animals Need? pp. 90-105	**Lesson 3:** Where Do Plants and Animals Live? pp. 106-121	**Lesson 4:** How Do Plants and Animals Change Their Environment? pp. 122-137
D/P- CYSI (video) Plant changing p. 75 D/P- CYSI What can help the plant live and grow? p. 75 D/P- Living and Nonliving Things (Students explore hotspots online to find out more about living and nonliving things.) pp. 76-77 P- AWYK (ENB) Students cut out pictures of living and nonliving things and	D/P- CYEI (video) A racoon in the forest p. 91 D/P- CYEI What things will help the racoon live and grow? p. 91 D/P- What People Need (Students watch videos online to find out more about what people need to live and grow.) pp. 92-93	D/P- CYEI (video) Plants and animals in a forest p. 107 D/P- CYEI What does the forest have that plants and animals need? p. 107 D/P- Desert (Students watch video and explore online to find out more about desert plants and	D/P- CYEI (video) Beaver changing its environment p. 123 D/P- CYEI Which show a plant or animal changing its environment? p. 123 D/P- Plant and Animal Changes (Students explore online to find out more about ways plants and animals

Unit Project: Animal Changes How Can you model a way animals change their environment? investigate to find out. **Unit Vocabulary:** living things nonliving things shelter desert forest pond ocean environment	sort pictures; students glue pictures in their ENB. p. 77 D/P- Sunlight, Water, and Soil (Students make observations about what plants need to live and grow and explore online to discover more about sunlight, water, and soil.) p. 78 D/P- HO Activity Students explore patterns and make observations about the things plants need to live and grow; students watch video of steps for this HO Activity. pp. 79-80 P- CER Students make a claim about what plants need to grow and cite evidence. p. 80 D/P- DTM Compare Objects (Students	P- AWYK (ENB) Students identify what they need to live and grow, make a list or draw pictures as evidence and identify patterns; students record responses in their ENB. p. 93 D/P- What Animals Need (Students watch video and explore online to find out more about what animals need to live, grow, and thrive.) p. 94 D/P- AWYK HO Activity Pill Bug Home (Students work in small groups to make a pill bug home; students can watch video of the steps for this activity.) pp. 95-96 P- CER Students make a claim about	animals.) pp. 108-109 P- AWYK (ENB) Read, Write, Share! (Students draw a desert plant or animal, tell how it gets what it needs and use evidence to support their explanation.) p. 109 D/P- Forest (Students watch video and explore online to discover more about a forest as a system made up of parts that work together.) p. 110 D/P- HO Activity Where Plants Live (Students build a model of a system in the natural world and make observations about whether it has the things a plant needs to live and	change their environment.) pp. 124-126 P- AWYK (ENB) Students draw a picture of the change a plant might make to get more space to grow. p. 126 D/P- Changes All Around (Students explore online to find out more about how living things form a system.) p. 127 P- AWYK (ENB) Students observe the changes an animal makes, make a claim, write their evidence in their ENB, and share with a classmate. p. 128 D/P- Changes to the Environment (Students watch videos and explore online to find out

	identify which plant is taller. p. 81 P- AWYK (ENB) Students write three things a plant needs and tell how these things are part of a pattern. p. 81 D/P- Air and Space to Grow (Students explore digital pictures online to find out more about how plants need air and space to live.) pp. 82-83 P- AWYK Read, Write, Share! (Students draw what a plant needs to live and grow and use evidence to tell how they know.) p. 84 D/P- TIF (enrich) People in Science and Engineering: Dr. Norma Alcantar; Soilless Plants pp. 85-86	what a pill bug needs to live and grow and cite evidence. p. 96 P- AWYK (ENB) Students choose an animal, draw it getting the things it needs and use pictures or words as evidence. p. 97 D/P- Water and Air for Animals (Students make observations about the body parts different animals use to get the water and air they need while exploring online to find out more about how animals drink water and take in air.) pp. 98-99 D/P- DTM Compare Objects (Students identify which animal drinks the most water.) p. 98	grow; students watch video of the steps for this activity.) pp. 111-112 P- CER Students make a claim about the basil plant and cite evidence that supports their claim. p. 112 D/P- DTM Know Number Sequence (Students use number sequencing to identify the number of trees that should be planted.) p. 113 P- AWYK (ENB) Read, Write, Share! (Students draw an animal that gets what it needs from the forest trees and use evidence to support their claim.) p. 113 D/P- Ponds (Students watch	more about the ways people change the environment and how people can help the environment) pp. 129-130 P- AWYK (ENB) Students draw how people change the environment to get what they need, use evidence to tell about the change and share their drawing with a peer. p. 130 D/P- HO Activity Engineer It: Plan a Park (Students design a park for plants and animals and use evidence from their model of a park to explain what plants and animals need in order to live and grow.) pp. 131-132

	D/P- Lesson Check p. 87 D/P- Self Check pp. 88-89 D- Lesson Quiz P- DI (ELL/RTI) p. 73I P-Extension p. 73I P- COLLAB p. 73J P- Connecting with NGSS p. 73I D- Science Safety HB D- CCC-HB D- ELA-HB D- M-HB D- SEP-HB D- ScienceSarurs Reference HB D- YSI Simulation Grow a Garden!	P- AWYK (ENB) Students identify what body parts fish and other animals use to get air and identify patterns; students record or draw answers in their ENB. p. 99 D/P- Food for Animals (Students explore online to discover more about what animals eat.) p. 100 P- AWYK (ENB) Read, Write, Share (Students choose an animal, read about what it eats, and draw a picture of the animal eating a food it likes; students can share pictures with classmates and draw pictures in their ENB.) p. 100	video and explore online to find out more about pond plants and animals.) pp. 114-115 P- AWYK Students think about what they know about ponds and make a mobile to show what they know. p. 115 D/P- Oceans (Students watch video and explore online to discover more about ocean plants and animals.) p. 116 P- AWYK (ENB) Read, Write, Share! (Students choose a plant or animal that lives in an ocean and identify how it gets what it needs; students use evidence to support their claim	P- CER Students make a claim about what their park needs and cite evidence that support their claim. p. 132 D/P- TIF (enrich) Earthworm Mania; Helping Plants pp. 133-134 D/P- Lesson Check p. 135 D/P- Self Check pp. 136-137 D- Lesson Quiz P- DI (ELL/RTI) p. 73I P-Extension p. 73I P- COLLAB p. 73J P- Connecting with NGSS p. 73I D- Science Safety HB D- CCC-HB D- ELA-HB

		D/P- TIF (enrich) Careers in Science and Engineering: Veterinarian; Wants and Needs pp. 101-102 D/P- Lesson Check p. 103 D/P- Self Check pp. 104-105 D- Lesson Quiz P- DI (ELL/RTI) p. 73I P-Extension p. 73I P- COLLAB p. 73J P- Connecting with NGSS p. 73I D- Science Safety HB D- CCC-HB D- ELA-HB D- M-HB D- SEP-HB D- ScienceSarurs Reference HB	and record in their ENB.) p. 116 D/P- TIF (enrich) A Trip to the Zoo; Amazon Rainforest pp. 117-118 D/P- Lesson Check p. 119 D/P- Self Check pp. 120-121 D- Lesson Quiz P- DI (ELL/RTI) p. 73I P-Extension p. 73I P- COLLAB p. 73J P- Connecting with NGSS p. 73I D- Science Safety HB D- CCC-HB D- ELA-HB D- M-HB D- SEP-HB D- ScienceSarurs Reference HB	D- M-HB D- SEP-HB D- ScienceSarurs Reference HB

Curriculum Alignment Common Language (CACL) Guide K-5		
Acronym	**Word/Phrase**	**Description**
AWYK	Apply What You Know	Hands on opportunities for students to apply learning.
CER	Claims Evidence Reasoning	Students make a claim and gather evidence along the way (during EXPLORATORY activities) to support claim.
CYEI	Can You Explain It	Lesson phenomenon used to ENGAGE students in learning at the beginning of the lesson.
CYSI	Can You Solve It	Lesson phenomenon used to ENGAGE students in learning at the beginning of the lesson.
D	Digital	Program resources and features in interactive digital form.
DI (ELL/RTI) **Extension** **COLLAB** **Connections to Science**	Differentiated Instruction (English Language Learner/Response to Intervention) Collaboration Connections to Science	A page that lists all learning activities used to differentiate learning, engage students in collaborative activities and connect learning to other subjects.
DTM	Do the Math	Integrated subject learning.
ENB	Evidence Notebook (prompt)	Student notebook or journal used to gather evidence during EXPLORATORY learning activities to support their claims.

ENGIT	Engineer It	Integrated subject learning.
HB **CCC-HB** **ELA-HB** **M-HB** **SEP-HB**	Handbooks Crosscutting Concepts English Language Arts Math Science and Engineering Practices	Students who need extra support in grasping concepts or to refresh student knowledge of skills.
HO	Hands-On (Activity)	Student collaboration activities.
LS	Language Smarts	Integrated subject learning.
P	Print	Program resources and features in print form.
TIF	Take It Further (enrich)	Enrichment activities for students in print or digital.
YSI	You Solve It (Simulation)	Open-ended simulation-based learning with multiple answer options.