Unit 3 Biodiversity of Life

Grade 2: Suggested Pacing: 5 weeks / end of MP3

Stage 1 – Desired Results (Also see Disciplinary Core Ideas below)

Unit Summary
In this unit of study, students compare the diversity of life in different habitats. Students will develop a sense of wonder for biodiversity: the range and variety of animals found on Earth.

Vocabulary: classifying, diversity, habitat, species

Performance Expectations: : (PE) (Established Goals / Content Standards)

- **2-LS4-1 Make observations of plants and animals to compare the diversity of life in different habitats.**
  - Clarification Statement: Emphasis is on the diversity of living things in each of a variety of different habitats.
  - *Assessment Boundary: Assessment does not include specific animal and plant names in specific habitats.*

Enduring Understandings Students will understand that:	**Essential Questions**
• People look for patterns and order when making observations about the world. • There are many different kinds of living things in any area, and they exist in different places on land and in water.	***Why do we see different living things in different habitats?***

Science & Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
Planning and Carrying Out Investigations Planning and carrying out investigations to answer questions or test solutions to problems in K–2 builds on prior experiences and progresses to simple investigations, based on fair tests, which provide data to support explanations or design solutions.	**LS4.D: Biodiversity and Humans** • There are many different kinds of living things in any area, and they exist in different places on land and in water.	Students identify **patterns** in animal's characteristics in order to group them. Students identify **patterns** in frog calls in order to determine how biodiverse a habitat is. Students explore the **cause and effect** relationship between bird feeder design and the type of food in it and the types of birds that visit it.

Make observations (firsthand or from media) to collect data which can be used to make comparisons. **Connections to Nature of Science** **Scientific Knowledge is Based on Empirical Evidence** • Scientists look for patterns and order when making observations about the world.		

Stage 2 –Model Assessment	
Summative Performance Task(s): **Performance Task #1:** Animal and plant classification online sorting game **Performance Task # 2:** Create a Triorama that illustrates a habitat. Include several living things (plant and animal) in the drawing. Describe why that ecosystem has those specific living things. **Performance Task #3 :** Use classroom materials to create a model of an imaginary animal according to the classification characteristics. Identify, describe, and illustrate the animal's habitat. Create oral presentation explaining how their animal survives in their habitat. Mystery Science Assessments are available for both the end of each mystery and the end of each unit. Optional Rubrics: • I Get It Rubric A primary rubric that uses a combination of words and symbols to describe different levels of performance. • Primary Science Rubric This rubric is appropriate for use with younger children. It shows how a seed develops, from being planted to becoming a flowering plant. Each growth level represents a different level of	**Formative Evidence:** *Why do we see different living things in different habitats?* ***Students who understand the concepts can:*** • Look for patterns and order when making observations about the world. • Make observations to collect data that can be used to make comparisons. • Make observations of plants and animals to compare the diversity of life in different habitats.

performance. ● Science Rubric The Exemplars Science Rubric is based on the following science standards: The National Research Council and the American Association for the Advancement of Science and New Standards. It includes four criteria: use of scientific tools, science reasoning and strategies, science concepts and, use of data and communication. ● Science Continuum Rubric This continuum was developed by an Exemplars workshop leader and task writer, Tracy Lavallee. It provides a framework for assessing the scientific thinking of young students.	

Stage 3 – Learning Plan

Suggested Resources for Planning:
Mystery Science: Animal Adventures: Animal Biodiversity- **Mystery Lessons 1-3**
"Optional Extras" are extensions to each Mystery. We recommend you use them during your unit or to extend the length of each unit. They include an informational text reading that builds on the Mystery's topic, assessments, and suggestions for supplemental activities.

Mystery 1: How many different kinds of animals are there?
Standard:2-LS4-1
Target:
- I can make observations of plants and animals to compare the diversity of life in different habitats

The Wonder of Science
Reading A-Z:
ReadWorks.org:
Epic Books:
● **https://www.getepic.com/app/** ***(Free book website/resource)***

Videos:
Amazing Animal Groups

Mammals
Birds
Fish
Reptiles
Amphibians
Invertebrates
Vertebrates

2-LS2-1 Farming Fish with Vegetables

Mystery 2: Why do frogs say "ribbit"?
Standard:2-LS4-1
Target:

- I can make observations of plants and animals to compare the diversity of life in different habitats.

The Wonder of Science
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Epic Books:

- **https://www.getepic.com/app/** ***(Free book website/resource)***

Mystery 3: How could you get more birds to visit a bird feeder?
Standard:2-LS4-1, K-2-ETS1-1, K-2-ETS1-2, K-2-ETS1-3
Target:

- I can make observations of plants and animals to compare the diversity of life in different habitats.
- I can ask questions, make observations, and gather information about a situation people want to change, develop possible solutions through the development of a new or improved object or tool, and choose the best design solution.
- I can develop a simple sketch, drawing, or model to illustrate how an object can solve a given problem.
- I can analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of each.

The Wonder of Science
Reading A-Z:
ReadWorks.org:
Epic Books:

- **https://www.getepic.com/app/** ***(Free book website/resource)***

The Mystery of the Missing Bees

2-LS4-1 Exploring Microhabitats
2-LS4-1 Virtual Field Trips

Books:
Read Aloud(s)
My Home in the Rainforest by J. Patrick Lewis
Water Habitats by Bobbie Kalman

Websites:

Reading A-Z:
Animals, Animals
Multilevel Book, Informational (nonfiction), 83 words, Level E (Grade 1),
ELL EditionEarth's Water
Informational (nonfiction), 240 words, Level H (Grade 1)
Multilevel Book also available in levels K and N
Animal Discoveries
Informational (nonfiction), 1,203 words, Level U (Grade 4)
Multilevel Book also available in levels O and R
Legs, Wings, Fins, and Flippers

Leveled Book, Informational (nonfiction), 182 words, Level H (Grade 1)

ReadWorks.org:
What's the Big Idea About Biodiversity?
Spot the Species
Water and the Earth
Living Things and their Habitats Animals

Brain Pop Jr.
https://jr.brainpop.com/science/animals/classifyinganimals/
https://jr.brainpop.com/science/habitats/arctichabitats/
https://jr.brainpop.com/science/habitats/freshwaterhabitats/
https://jr.brainpop.com/science/habitats/oceanhabitats/
https://jr.brainpop.com/science/habitats/rainforests/