

Grade: 1 Subject: Science	Unit of Study: Ecology/Rain Forests
Big Idea/Rationale	<p>Students will understand that humans need to co-exist with other organisms on earth to survive. They will discover that all organisms interact and are interdependent in various ways with each other. Students will give examples of how a habitat supports the growth of many different plants and animals and how humans can change natural habitats in ways that can be helpful or harmful to the plants and animals that live there. Students will explain how humans can protect or improve endangered habitats. Students will state in their own words why we should reduce, reuse and recycle the materials we use and how that can help our environment. We will discuss what pollution is and why we need to find better ways to support our lifestyle.</p>
Enduring Understanding (Mastery Objective)	<ul style="list-style-type: none"> • How can humans maintain their current lifestyle without disturbing other organisms and polluting the earth? • Discuss why it is important to reduce, reuse and recycle material. • Explain why rain forests and other biomes are important to the earth and need to be protected.
Essential Questions (Instructional Objective)	<ul style="list-style-type: none"> • Why is it important for us to save the rain forest? • What steps can we personally take to help protect endangered biomes and animals? • What are the four layers of a rain forest and what organisms live in those layers? • Describe the different types of pollution that threaten the earth and what steps we can personally take to reduce the pollution and/or destruction of our environment.
Content (Subject Matter)	<ul style="list-style-type: none"> • Observing and describing rain forests plants and animals. • Recording observations in words and drawings. • Making comparisons among a variety of plants and animals. • Communicating ideas through writing, drawing, and discussion. • Reading to enhance understanding of the basic needs of organisms and the diversity of life. • Applying what students know about plants and animals to what students know about themselves and their environment. • Developing an interest in ecology and saving endangered biomes. • Gaining an awareness of how our actions affect the earth and our environment in positive and negative ways. • Developing positive attitudes toward ecology. • Developing awareness that humans can have a positive or negative effect on the environment and the organisms within the environment. • Developing sensitivity to how our actions interrelate with other forms of life.

**Skills/ Benchmarks
(CCSS Standards)**

- 5.1.P.A.1 Display curiosity about science objects, materials, activities, and longer-term investigations in progress.
- 5.1.4.B.1 Design and follow simple plans using systematic observations to explore questions and predictions.
- 5.1.P.B.1 Observe, question, predict, and investigate materials, objects, and phenomena (e.g., using simple tools to crack a nut and look inside) during indoor and outdoor classroom activities and during any longer-term investigations.
- 5.1.4.B.2 Measure, gather, evaluate, and share evidence using tools and technologies.
- 5.1.P.B.2 Use basic science terms and topic-related science vocabulary.
- 5.1.P.B.3 Identify and use basic tools and technology to extend exploration in conjunction with science investigations.
- 5.1.4.B.4 Communicate and justify explanations with reasonable and logical arguments.
- 5.1.P.C.1 Communicate with other children and adults to share observations, pursue questions, and make predictions and/or conclusions.
- 5.1.4.C.1 Monitor and reflect on one's own knowledge regarding how ideas change over time.
- 5.1.P.D.1 Represent observations and work through drawing, recording data, and writing.
- 5.1.4.D.2 Work collaboratively to pose, refine, and evaluate questions, investigations, models, and theories.
- 5.1.4.D.3 Demonstrate how to safely use tools, instruments, and supplies.
- 5.3A Grade P CPI 01 Investigate and compare the basic physical characteristics of plants, humans, and other animals.
- 5.3.P.A.2 Observe similarities and differences in the needs of various living things, and differences between living and nonliving things.
- 5.3.P.B.1 Observe and describe how plants and animals obtain food from their environment, such as by observing the interactions between organisms in a natural habitat.
- 5.3.2.B.2 Compare how different animals obtain food and water.
- 5.3.2.B.3 Explain that most plants get water from soil through their roots and gather light through their leaves.
- 5.3.P.C.1 Observe and describe how natural habitats provide for the basic needs of plants and animals with respect to shelter, food, water, air, and light (e.g., dig outside in the soil to investigate the kinds of animal life that live in and around the ground).
- 5.3.2.C.1 Describe the ways in which organisms interact with each other and their habitats in order to meet basic needs.
- 5.3.2.C.2 Identify the characteristics of a habitat that enable the habitat to support the growth of many different plants and animals.

	<ul style="list-style-type: none"> • 5.3.2.C.3 Communicate ways that humans protect habitats and/or improve conditions for the growth of the plants and animals that live there, or ways that humans might harm habitats. • 5.3.P.D.1 Observe and record change over time and cycles of change that affect living things (e.g., use baby photographs to discuss human change and growth, observe and photograph tree growth and leaf changes throughout the year, monitor the life cycle of a plant). • 5.3.2.D.2 Determine the characteristic changes that occur during the life cycle of plants and animals by examining a variety of species, and distinguish between growth and development. • 5.4.P.G.1 Demonstrate emergent awareness for conservation, recycling, and respect for the environment (e.g., turning off water faucets, using paper from a classroom scrap box when whole sheets are not needed, keeping the playground neat and clean). • 5.4.2.G.3 Identify and categorize the basic needs of living organisms as they relate to the environment.
Materials and Resources	<ul style="list-style-type: none"> • Fiction and Non-fiction stories about the rain forest • Videos or DVD's
Notes	