Scientific Field Journal

Main Objectives

- Critical Thinking
- Communication
- Learn Observation Skills
- Development of Language Arts Skills

ACTIVITY

"How can I observe the world around me?"
Students assemble and design their very own Scientific Field Journal. In the Field Journal, they will write observations that they make in room activities, on the playground, on field trips, and anywhere they are outside of school.
Students can present their observations with other classes as well as compile their best work into one school field journal as a grade level.

Materials

Field Journal and basic art supplies:

- Binder
- Paper
- Crayons, markers, pencils
- Decorative materials

Curriculum components

Field journal has multiple entry types to be adapted for each grade level. Including but not limited to:
K.CC.1: Count to 100 by ones and tens. K.CC.3: Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20.
K.P.2.1: Classify objects by observable physical properties (including size, color, shape, texture, weight, and flexibility).
K.E.1.1: Infer than change is something that happens to many things in the environment based on observations made using one or more of their senses.
K.E.1.2: Summarize daily weather conditions, noting changes that occur from day
K.L.1.1: Compare different types of the same animal (i.e., different types of dogs, different types of cats, etc.) to determine individual differences within a particular type of anima
K.L.1.2: Compare characteristics of animals in terms of their structure, growth, changes, movement, and basic needs.

1.E.1.1: Recognize differences in the features of the day and night sky and apparent movement of objects across the sky as observed from Earth.
1.E.1.2: Recognize patterns of observable changes in the Moon's appearance from day to day
1.E.2.1: Summarize the physical properties of earth materials, including rocks, minerals, soils, and water, that make them useful in different way
1.E.2.2: Compare the properties of soil samples from different places, relating their capacity to retain water, nourish, and support the growth of certain plants.
1.L.1.2: Give examples of how the needs of different plants and animals can be met by their environments in North Carolina or different places through the world.
1.L.2.1: Summarize the basic needs of a variety of different plants (including air, water, nutrients, and light) for energy and growth.
1.L.2.2: Summarize the basic needs of a variety of different animals (including air, water, and food) for energy and growth.

2.E.1.1: Summarize how energy from the sun serves as a source of light that warms the land, air, and water.
2.E.1.4: Recognize the tools that scientists use for observing, recording, and predicting weather changes from day to day and during the season.
2.L.2.1: Summarize the life cycle of animals including birth, developing into an adult, reproducing, aging, and death.
2.L.1.2: Compare life cycles of other animals such as, but not limited to, mealworms, ladybugs, crickets, guppies, or frogs.
2.L.2.1: Identify ways in which plants and animals closely resemble their parents in observed appearance and ways they are different
2.L.2.2: Recognize that there is variation among individuals that are related.

3.P.2.3: Summarize changes that occur to the observable properties of materials when different degrees of heat are applied to them, such as melting ice or ice cream, boiling water or an egg, or freezing water.
3.E.1.2: Recognize that changes in the length and direction of an object's shadow indicate the apparent changing position of the Sun during the day
3.E.2.1: Compare Earth's saltwater and freshwater features (including oceans, seas, rivers, lakes,

3.E.2.2: Compare Earth's land features (including volcanos, mountains, valleys, canyons, caverns, and islands) by using models, pictures, diagrams, and maps.

3.L.2.1: Remember the function of the following structures as it relates to the survival of plants in their environments: roots, stems. leaves, and flowers.
3.L.2.2: Explain how environmental conditions determine how well plants survive and grow.
3.L.2.3: Summarize the distinct stages of the life cycle of seed plants.
3.L.2.4: Explain how the basic properties and components of soil determine the ability of soil to support the growth/survival of many plants

4.P.2.2: Explain how minerals are identified using tests for the physical properties of hardness, color, luster, cleavage, and streak.
4.P.2.3: Classify rocks as metamorphic, sedimentary, or igneous based on their composition, how they are formed, and the processes that create them.
4.E.2.1: Compare fossils (molds, casts, preserved parts) to one another and to living organisms.
4.E.2.2: Infer ideas about Earth's early environments from fossils to plants and animals that lived long ago.
4.E.2.3: Give examples of how the surface of the Earth changes due to slow processes such as erosion and weathering, and rapid processes such as landslides, volcanic eruptions, and earthquakes.
4.L.1.1: Give examples of changes in an organism's environment that are beneficial to it and some that are harmful.
4.L.1.2: Explain how animals meet their needs by using behaviors in response to information received from the environment
4.L.1.3: Explain how humans can adapt their behavior to live in changing habitats (e.g., recycling waste, establishing rain gardens, planting trees and shrubs to prevent flooding and erosion).
4.L.1.4: Explain how differences among animals of the same population sometimes give individuals an advantage in surviving

5.P.2.1: Explain how the Sun's energy impacts the processes of the water cycle (including evaporation, transpiration, condensation, precipitation, and runoff).
5.L.2.1: Compare the characteristics of several common ecosystems, including estuaries and salt marshes, oceans, lakes and ponds, forests, and grasslands.
5.L.2.2: Classify the organisms within an ecosystem according to the function they serve: producers, consumers, or decomposers (biotic factors).
5.L.2.3: Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystem.

5.E.1.1: Compare daily and seasonal changes in weather conditions (including wind speed and direction, precipitation, and temperature) and patterns.
5.E.1.2: Predict upcoming weather events from weather data collected through observation and measurements.
5.L.3.1: Explain why organisms differ from or are similar to their parents based on the characteristics of the organism.
5.L.3.2: Give examples of likenesses that are inherited and some that are not.