

Homeschool SCIENCE SERIES



SPRING SEMESTER THEMES

January 12: Habitats

January 19: Importance of Gardens

January 26: Adaptations

February 2: Insects

February 9: Birds

February 16: Mammals

February 23: Geology

March 2: Volcanology

March 9: Natural Phenomena

March 30: Patterns in Nature

April 6: Life Cycles

April 13: Invasive Species

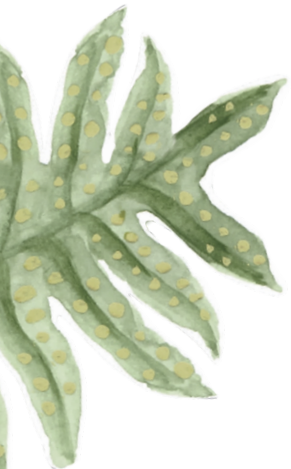
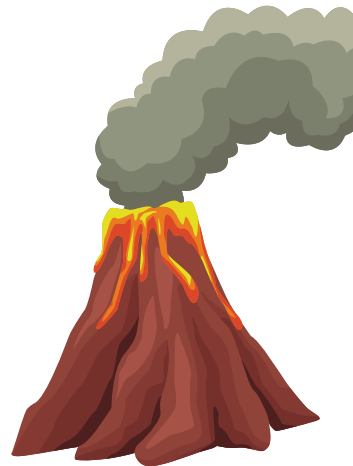
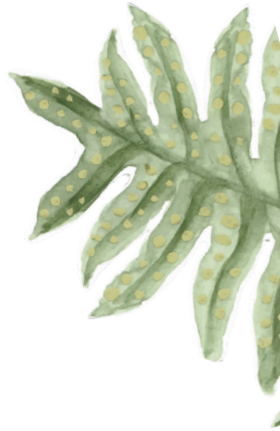
April 20: Migrations

April 27: Layers of the Forest

May 4: Renewable Energy

May 11: Ahupua'a

On March 16 & 23 there will be no program due to Nature Adventure Camp.



January 12: Habitats - Whether it's a grove of trees, a mountain cave, or the ocean floor, habitats provide living things with all they need to survive. In Makiki Valley, we'll discover different plants and animals that live in forest, meadow, and freshwater habitats. Students will even make their own terrariums to take home.

January 19: Importance of Gardens - Children will tend the gardens around the nature center, sowing seeds, sifting compost and harvesting food. As the group works together, they will learn the importance of supporting local organic farms and how to start a garden of their own!

January 26: Adaptations - We will explore up close different physical adaptations: feathers, exoskeletons, and gills of animals, spores, flowers, and leaf shapes of plants. We also can't forget about behavioral adaptations like migration patterns, songs of animals, and flowering and fruiting seasons of plants.

February 2: Insects - As amateur entomologists, we'll venture to the meadow, forest, and stream in search of six-legged friends and their arthropod relatives. While hiking through Makiki Valley, we'll learn about adaptations of insects native to the Hawaiian Islands and ways to protect them.

February 9: Birds - Hawai'i is teeming with native bird species like the Nene, I'iwi, Manu-o-Kū and the Laysan Albatross. This week we will be able to look up close with native endangered taxidermy birds and take our binoculars into the forest to discover the forest birds of Maikiki.

February 16: Mammals - We will learn the major characteristics of mammals and the two native land mammals on Hawai'i today, the 'Ilio-holo-i-ka-uaua and the 'ōpe'ape'a. Hopefully we can find living ones on Oahu and take a closer look!

February 23: Geology - Today we are going to Rock-Out and take an in-depth look at how rocks, lava and nonliving elements make up our islands of Hawai'i. We will learn about volcanos, earthquakes, mountains and the oceans to understand the Earth's physical geology.

March 2: Volcanology - On this date we will become amateur volcanologist as we study and understand the formation and the eruptive activities of volcanoes. By making a model we will understand the hot spot theory and the life and death of an island.

March 9: Natural Phenomena - Students will study how natural phenomena are due to laws and processes that govern our natural world and how the human beings have little or nothing to do with it. They will learn about natural phenomena and look at how extinctions and migrations might fall into these categories.

March 30: Patterns in Nature - This week students will search for visible regularizes of form found in the natural world and ask questions of why and how? We will investigate Makiki Valley to find natural patterns that include symmetries, trees, spirals, cracks and stripes. At the end of the day students will create their own tessellations as a form of mathematical art.

April 6: Life Cycles - All plants and animals go through different life cycles as they are born, grow and change over time. Students will focus on animals in Makiki Valley to help develop models to describe different organism's life cycles.

April 13: Invasive Species- Invasive species are plants and animals that are not indigenous or native to a particular area. Students will learn how invasive species can cause great environmental harm to Hawai'i and how to find solutions in preventing their spread.

April 20: Migrations - We'll look at the distances these migrants travel, understand why they undertake these voyages, and their navigation secrets! We will focus on some of our favorite Hawaiian migratory species, including those that travel long distances, and those that migrate here in the islands.

April 27: Layers of the Forest - Students will learn about the unique characteristics of each layer of the forest. As we venture into the Makiki mesic forest students will learn the importance of the four major layers of the forest and what types of plants and animals call it home.

May 4: Renewable Energy - We'll learn how "clean" energy from sustainable sources like wind, solar, water, and biomass, generate electricity with little or no pollution. We'll explore the science behind non-renewable versus renewable energy and discover why clean energy is critical for our health and the environment.

May 11 : Ahupua'a - In Makiki Valley, part of the Waikiki Ahupua'a, we'll encounter native plants utilized by Hawaiians, a restored lo'i , and many ancient rock terraces once used for growing food. We'll discover how these important values that guided sustainable living in the past can also positively shape our present and future.

