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Homeschool

# SCIENCE SERIES

2025 SEMESTER: JANUARY 15 TO MAY 15

**January 15:** 'Ōhi'a Lehua and the Study of New Beginnings

**January 22:** 'O'opu and the Study of Animal and Fish Life Cycles

**January 29:** The Hibiscus and the Study of Plant Life Cycles

**February 5:** Niu and the Study of Seed Dispersal

**February 12:** Ae'o and the Study of Adaptations

**February 19:** Pepeiao Mushrooms and the Study of Fungi

**February 26:** Naupaka and the Study of Plant Adaptations and Survival

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**March 12:** 'Ulu and the Study of Canoe Plants

**April 2:** 'Ōpe'ape'a (Hawaiian Hoary Bat) and the Study of Echolocation

**April 9:** Coqui Frogs and the Study of Invasive Species

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**April 23:** Awa (Milkfish) and the Study of Fishponds


**April 30:** Manu-o-Kū (White Fairy Tern) and the Study of Nests

**May 7:** Hinalea (Hawaiian Cleaner Wrasse) and the Study of Symbiotic Relationships

**May 14:** The Hawaiian Monk Seal and the Study of Conservation

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**January 15: 'Ōhi'a Lehua and the Study of New Beginnings.** As we get to know each other and Makiki Valley, our classroom for the coming semester, we'll also learn about how plants like 'Ōhi'a Lehua begin the process of forming a new forest after lava flows. We'll answer questions such as what do these plants need to grow in these unique conditions?

**January 22: 'O'opu and the Study of Animal and Fish Life Cycles.** We'll learn about what an animal lifecycle is and the main stages. Then, we'll compare similarities and differences between the unique lifecycle of this native fish and other fish that live outside Hawai'i. This week, we'll also begin our semester long project, learning about how to collect data and study Makiki Valley more closely.

**January 29: The Hibiscus and the Study of Plant Life Cycles.** Now that we've learned about animal life cycles, we'll take a look at how plant life cycles compare. We'll look closely at plants, especially our native hibiscus plants, to study plant life cycles and what they need to survive. What makes hibiscus plants unique, and who are their insect pollinators?

**February 5: Niu and the Study of Seed Dispersal.** Building on what we learned about plant life cycles, we'll take a closer look at how seeds, like niu (coconuts), move across small and very big distances. We'll answer questions like why it is important for seeds to spread and investigate what clues can tell us how a seed moves.

**February 12: Ae'o and the Study of Adaptations.** What makes the Ae'o (Hawaiian black-necked stilt) a unique animal? We'll take a deeper dive into adaptations and how different adaptations help animals survive in different habitats. How are physical and behavioral adaptations different?

**February 19: Pepeiao Mushrooms and the Study of Fungi.** Fungi are important in any ecosystem, and fun to learn about. This week we'll investigate the role of decomposers and why they're so necessary. There are many unique types of fungi, so we'll be heading out on the trail to see what fungi we can find in Makiki valley.

**February 26: Naupaka and the Study of Plant Adaptations and Survival.** The two main species of Naupaka—Naupaka Kahakāi (coastal naupaka) and Naupaka Kuahiwi (mountain naupaka)—give us a chance to learn more about the plant adaptations that allow them to live in such different habitats. This native plant also brings us the chance to continue exploring mo'olelo (stories) and the knowledge they hold.

**March 5: Limu and the Study of Algae.** We see limu (algae) at so many of the rocky beaches around the island, but what exactly is it? We'll dive into all the reasons native limu are key to healthy shoreline habitats, what too much of it means, and what we can do about the invasive limu. We'll also learn that it isn't just for the fish and turtles - limu is important to people, too.

**March 12: 'Ulu and the Study of Canoe Plants.** When Polynesians arrived to the Hawaiian Islands, they carried many plants that helped them live and thrive here, and 'ulu (breadfruit) is one of these useful plants. We'll answer why 'ulu was one of these chosen plants, how it is used, and even learn the stories of this plant and importance in growing local food today.

**April 2: 'Ōpe'ape'a (Hawaiian Hoary Bat) and the Study of Echolocation.** This week we'll be diving into how animals use echolocation to navigate, hunt, and find each other. What specially adapted body parts do these animals use? And why do these animals use this unique process?

**April 9: Coqui Frogs and the Study of Invasive Species.** Hawai'i has many plants and animals from around the world. Some are helpful, like we've learned about canoe plants, but others are invasive. What does invasive mean, and how do we know if something is invasive? What can we do to prevent invasive species from arriving here and spreading?

**April 16: Mōlī and the Study of Wings and Flight.** The Laysan Albatross are not only amazing seabirds that nest here on our island, but also have impressive wings. This week we'll take a closer look at how birds fly and compare the wings and flight of birds we see in the skies.

**April 23: Awa (Milkfish) and the Study of Fishponds.** This week we'll investigate how fishponds are used to sustainably raise fish for local communities and how they have been used for hundreds of years by Native Hawaiians. We'll build on what we learned about limu this semester to see how these ponds are built to encourage limu growth and fish like awa.

**April 30: Manu-o-Kū (White Fairy Tern) and the Study of Nests.** This week will be focused on the official bird of Honolulu, the Manu-o-Kū. These small birds don't build the kind of nest we usually think of, which gives us the chance to explore other unusual nests while we answer questions, including: why do birds build nests? How do they choose where to nest? What can we learn by building our own nests?

**May 7: Hinalēa (Hawaiian Cleaner Wrasse) and the Study of Symbiotic Relationships.** Just like people, animals and even plants work together in many ways. What does symbiotic mean? Why do animals do this and what can we learn about working together?

**May 14: The Hawaiian Monk Seal and the Study of Conservation.** We'll finish out our semester together by learning more about what conservation is and how we can make a difference and help protect all the life we've learned about this semester.

