

Amy Greenwell Ethnobotan



Explore the world of Hawaiian ethnobotany – the tradition of a people and their plants

Amy Greenwell Garden is a branch of the Bishop Museum. Located on the Island of Hawai'i, Amy Greenwell Garden is on Highway 11 in Captain Cook, about 12 miles south of Kailua-Kona.

As you walk through this 15-acre garden, you will see plants that grew in traditional farms and native forests of Kona before Captain Cook arrived. Discover how skillful the Hawaiian people were at farming and horticulture, and at using the plants of the native Hawaiian landscape. It's an enriching cultural experience you will not want to miss!



The Garden Grounds

Interpretive aids

The Garden is interpreted through a network of media including a brochure, panels and interpretive labels. Most plants are labeled, and labels include scientific names, Hawaiian name, plant family, uses and other information.



Garden grounds

The Garden is landscaped to reflect the forests and farms of Kona in the time before foreign contact. Plantings reflect 4 zones – coastal, low land dry forest, agricultural, and upland forest. There are over 250 different types of native and Polynesian introduced plants and prominent archaeological features dating back 500 years.

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School Programs at Amy Greenwell Garden

The following school group visits are available Monday–Friday, 8:30 a.m. – 3:30 p.m., except holidays. Visits on weekends and holidays may be arranged if staff is available.

The Ethnobotany Tour

1 hour and 30 minutes includes a tour of the Garden collection and a hands-on interactive experience. Program generally touches on all the themes listed below, but you may choose ahead to have certain themes emphasized to meet your class needs.

- Grades: pre-K – 12.
- Cost: \$3 per student.
- Minimum group size 10, maximum 90.

Hands-on interactive experiences included in the Ethnobotany Tours (choose one):

Cordage Making

Learn the basic art of twisting cordage from different plants. Make a piece of twisted hau cordage to take home.

Kapa Stamps

See the tools and hear the tap tap tap of kapa beating. Stamp your own bookmark to take home using traditional 'ohe kāpala.

Spear Throwing

Hear the story of Kekūhaupi'o and practice throwing a hau spear into a banana stump.

For a longer visit: 2 hours and 30 minutes includes a guided tour and 3 interactive experiences.

- Grades 3 – 12.
- Cost: \$6 per student.
- Minimum group size 10, maximum 90.

HPCS III – Benchmarks

Social Studies:

- K.8.1 Explain people's basic needs and how they fulfill them.
- 1.6.1 Describe ways in which own and other cultures express cultural beliefs and practices through stories and/or legends.
- 2.7.3 Describe a variety of the earth's natural resources and ways in which people use them.
- 3.6.1 Explain that different cultures have unique values, beliefs and practices.
- 4.3.1 Explain the origins and culture of early Hawaiians.

- 4.6.1 Explain how language, traditional lore, music, dance, artifacts, traditional practices, beliefs, values and behaviors are elements of culture and contribute to the preservation of culture.
- 4.7.3 Analyze the consequences of human modification of the physical environment in Hawai'i using geographic representations.
- 4.8.1 Describe the economic interdependence among those living in the ahupua'a.
- 5.1.1 Use chronological order to explain causal relationships between and among people and events.
- 6.7.3 Analyze patterns of cultural encounters and exchanges and assess their impact on societies.
- 7HHK.3.1 Explain the events, people and ideas (that led to the unification of the Hawaiian Islands).
- 10.2.1 Use knowledge of historical periods to assess contemporary issues and decisions.



HPCS III – Benchmarks

Social Studies:

- SC.K.1.3 Collect data about living and non-living things.
- SC.1.5.2 Describe the physical characteristics of living things that enable them to live in their environment.
- SC.2.5.1 Identify distinct environments and the different kinds of organisms each environment supports.
- SC.2.8.2 Identify the limited supply of natural resources and how they can be extended through conservation, reuse and recycling.
- SC.3.3.1 Describe how plants depend on animals.
- SC.4.5.3 Describe how different organisms need specific environmental conditions to survive.
- SC.7.5.1 Differentiate between sexual and asexual reproduction.
- SC.BS.5.2 Explain the theory of natural selection.
- SC.ES.2.3 Explain the impact of humans on the Earth system.

Programs at Amy Greenw

Service Learning Visit

2 hours and 30 minutes, includes a tour of the garden and one hour or more of work in the garden. Activities may include weeding, mulching, planting, harvesting crops, repotting or other garden tasks as needed.

- Grades 5 – 12.
- No cost.
- Minimum group size 10, maximum 36.

The service learning portion of a school visit addresses Hawaii State General Learner Outcomes, especially the following:

- The understanding that it is essential for human beings to work together.
- The ability to communicate effectively.

Workshop Visit

1 hour or more, depending on the topic. An expert teaches traditional arts or horticultural skills. Workshop visits depend on the availability of experts to teach the workshop. Some workshop visits we have arranged in the past include lauhala weaving, ipu decorating, 'ohe kāpala carving, kapa making, air layering and plant propagation.

- Grades 5-12.
- Cost may vary, call for information.
- Minimum group size 10, maximum 30.

Themed Tour

1 hour, choose from a program theme listed below.

- Grades 3 – 12.
- Cost: \$3 per student.
- Minimum group size 10, maximum 90.

Program themes:

Canoes and migration

Which plants made up the basic traveling kit of the Polynesian settlers? Why did they bring these plants? What plants did they use to make their canoes?

HCPS III – Benchmarks

Social Studies:

- 3.7.5 Examine the economic and geographic factors that influence why people migrate and where they settle.



- 4.3.5 Identify reasons that early explorers, settlers, and immigrants came to Hawai'i (e.g., influence of Pa'ao) or the Polynesian region and describe what their lives and experiences were like.

Medicinal plants

Get an overview of Hawaiian traditional medicine, and meet some of the hundreds of plants used in traditional therapeutics.

HCPS III – Benchmarks

Social Studies:

- 3.6.1 Explain that different cultures have unique values, beliefs and practices.
- 4.6. Explain how language, traditional lore, music, dance, artifacts, traditional practices, beliefs, values and behaviors are elements of culture and contribute to the preservation of culture.
- 4.6.3 Describe the changes in Hawaiian culture through contact with Westerners.

Food and farming

The Garden is at the heart of one of the great agricultural complexes of traditional Hawai'i – the Kona Field System. Learn how the system worked and what lessons it has for us today.

HCPS III – Benchmarks

Social Studies:

- 3.7.3 Describe the physical and human characteristics that make different regions unique.

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- 4.3.2 Explain the history of Hawai'i's early economy.
- 4.3.6 Illustrate patterns and changes in population in Hawai'i over a period of time. Place key events in pre-contact Hawaiian history in chronological order.
- 4.3.10 Describe how significant people, including those of legend (e.g., Papa and Wakea, Pele, Pa'ao) affected pre-contact Hawai'i.
- 4.8.1 Describe the economic interdependence among those living in the ahupua'a.
- 6.6.1 Examine the ways in which different cultures have influenced families and communities.
- 7HHK.3.1 Explain the events, people and ideas that led to the unification of the Hawaiian Islands.

HCPS III – Benchmarks

Science:

- SC.3.2.1 Describe ways technologies in fields such as agriculture, information, manufacturing or communication have influenced society.

Natural history

The most isolated island group in the world has the most unique plant communities in the world. How did they get here and what makes them so unique?

HCPS III – Benchmarks

Social Studies:

- SC.3.1.1 Pose a question and develop a hypothesis based on observations.
- SC.3.3.1 Describe how plants depend on animals.
- SC.4.5.3 Describe how different organisms need specific environmental conditions to survive.
- SC.BS.4.6 Explain the organization of life on Earth using the modern classification system.
- SC.BS.5.1 Explain the theory of evolution and describe evidence that supports this theory.
- SC.BS.5.2 Explain the theory of natural selection.

Plants at Risk

Diversity is under siege in Hawai'i and across the world. Hear the stories of some of the rarest plants in the world and what is being done to save them.

HCPS III – Benchmarks

Science:

- SC.BS.5.2 Explain the theory of natural selection.
- SC.ES.2.3 Explain the impact of humans on the Earth system.

Planning Your Visit to Amy Greenwell Garden

Call ahead for reservations (808) 323-3318. Monday – Friday, 8:30 a.m. through 5:00 p.m., except holidays.

Reservations

Please have the following information ready:

- Desired date.
- Number of students and chaperones.
- Grade or class.
- Program selection.
- Leader and contact information.
- School/address/phone.
- Please make reservations at least 2 weeks in advance.

Student Fees:

Ethnobotany tour (1.5 hours).....	\$3.00
Ethnobotany tour (2.5 hours).....	\$6.00
Service learning visit	no charge
Workshop visit	call for prices
Themed tour.....	\$3.00
Adult chaperones	no charge

Note: due to generous support of the Bretzlaff Foundation, we are able to waive the cost of field trips to the Garden for Title One schools (K-12). Call the Garden for details.

Payment:

- Purchase orders accepted.
- Or pay by check or cash in advance or on day of visit.
- Please make checks payable to Bishop Museum.

Lunch:

- You are welcome to stay at the Garden for lunch.
- Picnic tables and ample grass are available.

Please call for more information and reservations:

(808) 323-3318
P.O. Box 1053
Captain Cook, HI 96704
<http://www.bishopmuseum.org/exhibits/greenwell/greenwell.html>

Amy Greenwell Outreach Programs

Outreach visits bring culture and science into your classrooms.

Ethnobotany classroom visits include these topics:

Kalo & Cordage

Find out how Kona farmers grow this staple food of the traditional diet. Explore different methods for making string and rope from Hawaiian plants.

Kalo and cordage can help students meet these benchmarks:

HCPS III – Benchmarks

Social Studies:

- K.8.1 Explain people’s basic needs and how they fulfill them.
- 1.3.1 Compare own life with those of children in history.
- 2.7.3 Describe a variety of the earth’s natural resources (e.g., water, forests and oil) and ways in which people use them.
- 3.6.1 Explain that different cultures have unique values, beliefs and practices.
- 4.3.1 Explain the origins and culture of early Hawaiians.
- 4.6.1 Explain how language, traditional lore, music, dance, artifacts, traditional practices, beliefs, values and behaviors are elements of culture and contribute to the preservation of culture.
- 6.6.1 Examine the ways in which different cultures have influenced families and communities.

Seeds

Examine seeds from many native plants and learn how they grow.

Propagating Plants

Learn techniques for starting plants from seeds, tubers and cuttings.

Seeds and propagating plants can help students meet these benchmarks:

HCPS III – Benchmarks

Science:

- SC.K.1.1 Use the senses to make observations.
- SC.K.1.2 Ask questions about the world around them.
- SC.K.1.3 Collect data about living and non-living things.
- SC.1.3.1 Identify the requirements of plants and animals to survive (e.g., food, air, light, water).
- SC.1.4.1 Describe how living things have structures that help them to survive.
- SC.2.4.1 Explain how plants and animals go through life cycles.
- SC.3.1.1 Pose a question and develop a hypothesis based on observations.
- SC.3.1.2 Safely collect and analyze data to answer a question.
- SC.3.4.1 Compare distinct structures of living things that help them to survive.
- SC.7.5.1 Differentiate between sexual and asexual reproduction.

School garden projects

Garden staff can help your class or school through the process of planting a school garden featuring native and Polynesian introduced plants. We can supply many of the plants to your school for a school garden.

Each of these steps may involve one or more visits to your classroom by garden staff:

- Planning your garden.
- Starting your seeds and cuttings.
- Planting the garden.
- Caring for a school garden.

Program information

- Call (808) 323-3318 for fees and reservations.
- There is no fee for many of these visits as they are supported by the Education through Cultural and Historical Organizations (ECHO) program and Native Hawaiian Culture and Arts Program (NHCAP). Available to Hawai’i Island schools only.
- Grades pre-school – 12.
- Other topics for classroom visits available.