

# Ho‘opili ‘Ai

## UNITING KEIKI & HAWAI‘I FOOD CROPS



### Lesson Plan: Kalo, ‘Uala, Pala‘ai & ‘Ulu

<b>Overview</b>	This multimedia lesson plan introduces students to Hawai‘i agriculture and food systems, focusing on locally-grown staple crops. Select one of the four crops featured below and choose from a variety of activities based on materials and time available.
<b>Learning Objectives</b>	Develop students’ relationship with Hawai‘i-grown staple crops kalo (taro), ‘uala (sweet potato), pala‘ai (pumpkin), and/or ‘ulu (breadfruit) and the concept of a “value chain” – from farm to fork. Strengthen HĀ (Nā Hopena A‘o) among students and school staff.
<b>Grade Levels</b>	PreK to Grade 5; adaptable for Grades 6-12
<b>Content Areas</b>	Science, Social Studies
<b>Materials</b>	<ul style="list-style-type: none"> <li>• Farm to School Sampler Boxes: <a href="#">Cafeteria Box</a> or <a href="#">Classroom Box</a>. <b>Request a sponsored box <a href="#">HERE</a>.</b></li> <li>• Videos: <a href="#">Keiki Education Playlist</a></li> <li>• <a href="#">Kalo, ‘Uala &amp; Pala‘ai Discussion Questions</a> (standards-aligned by grade level for Science and Social Studies)</li> <li>• <a href="#">‘Ulu Discussion Questions</a></li> <li>• Coloring Pages: <a href="#">‘Ulu</a> / <a href="#">Kalo</a> / <a href="#">‘Uala</a> / <a href="#">Ipu</a> and coloring supplies</li> <li>• <a href="#">360° Māla Kalu‘ulu Farm Tour</a> and <a href="#">Treasure Hunt for Hawaiian Crops</a> worksheet</li> </ul>
<b>Additional Resources</b>	<ul style="list-style-type: none"> <li>• <a href="#">Hawai‘i Farm to School Toolkit</a> (Kalo page / <a href="#">‘Uala</a> page / <a href="#">Pala‘ai</a> page / <a href="#">‘Ulu</a> page)</li> <li>• <a href="#">‘Ulu Education Toolkit</a></li> <li>• <a href="#">Hawai‘i Farm to School Resource Hub</a></li> </ul>
<b>Feedback Forms (Opt)</b>	<ul style="list-style-type: none"> <li>• FOR STUDENTS: Gather feedback from students on their tasting experience with <a href="#">THIS PAGE!</a></li> <li>• FOR EDUCATORS: You are invited to provide feedback to the organizers via <a href="#">THIS FORM</a>.</li> </ul>



COOPERATIVE EXTENSION  
UNIVERSITY OF HAWAII AT MĀNOA  
COLLEGE OF TROPICAL AGRICULTURE AND HUMAN RESOURCES





# Lesson Plan: Kalo

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Crop	Suggested Time	Sub-Goals	Learning Material	Learning & Teaching Activities	More Resources
<b>Kalo</b>	30 minutes (video, activities, tasting)	<p>Develop student relationships with kalo as a culturally significant and versatile staple food of Hawai'i.</p> <p>Introduce the concept of a food system value chain.</p> <p>Practice motor, comprehension, and critical thinking skills.</p>	<p>Video: <a href="#">Get to Know Kalo!</a> (6.5 minutes)</p>	<p><a href="#">Discussion Questions</a> (standards-aligned by grade level for Science and Social Studies)</p> <p><a href="#">Kalo Coloring Page</a> Art by Caren Ke'ala Loebel-Fried From "Lono and the Magical Land Beneath the Sea" published by University of Hawai'i Press</p> <p>Kalo samples for tasting (<a href="#">at school</a> or <a href="#">take-home</a>)</p>	<p><a href="#">Taro - Harvest of the Month Toolkit</a></p>







# Lesson Plan: 'Uala



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Crop	Suggested Time	Sub-Goals	Learning Material	Learning & Teaching Activities	More Resources
'Uala	30 minutes (video, activities, tasting)	<p>Develop student relationships with 'uala as a culturally significant and versatile staple food of Hawai'i.</p> <p>Introduce the concept of a food system value chain.</p> <p>Practice motor, comprehension, and critical thinking skills.</p>	Video: <a href="#">Get to Know 'Uala!</a> (4.5 minutes)	<p><a href="#">Discussion Questions</a> (standards-aligned by grade level for Science and Social Studies)</p> <p><a href="#">'Uala coloring page</a></p> <p>Art by Caren Ke'ala Loebel-Fried From "Lono and the Magical Land Beneath the Sea" published by University of Hawai'i Press</p> <p>'Uala samples for tasting (<a href="#">at school</a> or <a href="#">take-home</a>)</p>	<a href="#">Sweet Potato - Harvest of the Month Toolkit</a>







# Lesson Plan: Pala'ai



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Crop	Suggested Time	Sub-Goals	Learning Material	Learning & Teaching Activities	More Resources
<b>Pala'ai</b>  	30 minutes (video, activities, tasting)	<p>Develop student relationships with pala'ai as a culturally significant and versatile staple food of Hawai'i.</p> <p>Introduce the concept of a food system value chain.</p> <p>Practice motor, comprehension, and critical thinking skills.</p>	<p>Video: <a href="#">Get to Know Pala'ai!</a> (4.5 minutes)</p>	<p><a href="#">Discussion Questions</a> (standards-aligned by grade level for Science and Social Studies)</p> <p>Pala'ai samples for tasting (<a href="#">at school</a> or <a href="#">take-home</a>)</p> <p><i>Coloring page preface:</i> Unlike kalo and 'uala, pala'ai is not a canoe crop. It was brought to Hawai'i by Japanese and Filipino immigrants. However, it is in the same plant family – Cucurbits – as ipu, an important canoe crop introduced to the islands over one thousand years ago. Ipu is not grown for food. The hard gourd is used as a rattle or drum for chant and dance as well as a vessel for carrying water and food, storing dyes, and as a burial receptacle. <a href="#">Source + more info linked here.</a></p> <p><a href="#">Ipu coloring page</a> Art by Caren Ke'ala Loebel-Fried From "Lono and the Magical Land Beneath the Sea" published by University of Hawai'i Press</p>	<p><a href="#">Squash - Harvest of the Month Toolkit</a></p>







# Lesson Plan: 'Ulu



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Crop	Suggested Time	Sub-Goals <i>Choose one set of sub-goals below per class period</i>	Learning Material <i>Choose one of the videos below per class period</i>	Learning & Teaching Activities	More Resources
'Ulu	30 minutes (video, activities, tasting)	Understand the cultural importance of 'ulu in Hawai'i through mo'olelo.	Video: <a href="#">Mo'olelo: The Gift of Kū</a> (4 minutes)	<a href="#">Discussion questions</a>  'Ulu samples for tasting ( <a href="#">at school</a> or <a href="#">take-home</a> )	<a href="#">Breadfruit - Harvest of the Month Toolkit</a>
		Practice motor skills as well as comprehension and critical thinking skills.	'Ulu Coloring Pages: <a href="#">"The Gift of Kū"</a> <i>Art by Caren Ke'ala Loebel-Fried</i>		
		Introduce 'ulu as a versatile staple food of Hawai'i.	Video: <a href="#">'Ulu - In the Kitchen</a> (3 minutes)		
		Apply knowledge of the different stages and uses of 'ulu.			



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# Lesson Plan: 'Ulu

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Crop	Suggested Time	Sub-Goals <i>Choose one set of sub-goals below per class period</i>	Learning Material <i>Choose one of the videos below per class period</i>	Learning & Teaching Activities	More Resources
'Ulu	30 minutes (video, activities, tasting)	Discuss the importance of nutrition; evaluate the nutritional benefits of 'ulu compared to other foods.	Video: <a href="#">Nutritional Benefits of 'Ulu</a> (3 minutes)	Discussion questions  'Ulu samples for tasting ( <a href="#">at school</a> or <a href="#">take-home</a> )	<a href="#">Breadfruit - Harvest of the Month Toolkit</a>
		Meet some of Hawai'i's 'ulu farmers and learn about breadfruit agroforestry in Hawai'i.  Practice identifying plants in a native agroforest.	Video: <a href="#">Meet the 'Ulu Farmers</a> (3 minutes) <b>OR</b> <a href="#">Māla Kalu'ulu Agroforestry Farm Tour</a> (4 minutes)  <a href="#">360° Māla Kalu'ulu Farm Tour</a> and <a href="#">Treasure Hunt worksheet for Hawaiian crops</a>		

