

# UbD - Introduction to Growing Food ... Let Them Eat Kale

## Stage 1 Desired Results

<p><b>ESTABLISHED GOALS</b>      <b>G</b></p> <p>1-LS3-1: Use information from observations to identify similarities and differences among individual plants (or animals) of the same kind</p> <p>1.K-2-ETS1-1: Ask questions, make observations, and gather information about a situation people want to change that can be solved by developing or improving an object or tool.</p> <p>(Reinforce K-LS1-1: Observe and communicate that animals (including humans) and plants need food, water, and air to survive. Animals get food from plants or other animals. Plants make their own food and need light to live and grow.)</p> <p><b>MA Environmental Education Plan</b> (from Benchmarks on the Way to Environmental Literacy, SAGEE, 1995): An environmentally literate person knows and understands ...     How human actions modify the physical and biological environments</p>	<b>Transfer</b>	
	<p><i>Students will be able to independently use their learning to...</i>      <b>T</b></p> <ul style="list-style-type: none"> <li>-correctly identify that the food that we eat grows from the soil.</li> <li>-identify that crops grown in western MA can be part of a healthy meal</li> </ul>	
	<b>Meaning</b>	
	<p><b>UNDERSTANDINGS</b>      <b>U</b></p> <p><i>Students will understand that...</i></p> <ul style="list-style-type: none"> <li>-living things have strengths and weaknesses particular to the species</li> <li>-if we want a plot of land to produce a substantial yield of food, we must take care of the plants</li> <li>-growing the greatest quantity of food requires that the gardener tend and water the plants regularly through the growing season</li> <li>-a healthy diet includes a variety of foods</li> </ul>	<p><b>ESSENTIAL QUESTIONS</b>      <b>Q</b></p> <ul style="list-style-type: none"> <li>-where does our food come from?</li> <li>-how much effort does it take to produce edible plants from a plot of land?</li> <li>-what conditions does a particular crop require to grow?</li> <li>-what are the health benefits of including more plants and fresh foods in the diet?</li> <li>-what are the physical and mental health and benefits of growing one's own food?</li> </ul>
	<b>Acquisition</b>	
<p><i>Students will know...</i>      <b>K</b></p> <ul style="list-style-type: none"> <li>-you can eat food grown from a garden</li> <li>-growing food requires planning, time and effort</li> <li>-growing one's own crops can provide fresh, nutrient-dense food</li> <li>-gardening is good physical activity and can help one manage stress</li> </ul>	<p><i>Students will be skilled at...</i>      <b>S</b></p> <ul style="list-style-type: none"> <li>-harvesting leaf-based food</li> <li>-identifying the crop plant and removing weeds</li> <li>-watering crops for most efficient use of water resources</li> </ul>	

## Stage 2 - Evidence

Evaluative Criteria	Assessment Evidence	
Title and Name on cover Drawings, etc on pages	TRANSFER TASK(S): Kale Farmers journal: Students will produce drawings and other documentation of their learning in their journal	TT
Positive affect Expresses a willingness to try other foods grown in the school garden	OTHER EVIDENCE: Participation in the Kale Happy Dance and Healthy Meal Clapping Game	OE

## Stage 3 – Learning Plan

### *Summary of Key Learning Events and Instruction*

#### **In the classroom (approx. 15–20 min):**

- 1- Introduce students to the activity: the class will go out to the garden, observe, journal, learn to identify the crop plants growing there, and participate in tending (and watering) the garden
- 2- Students will prepare a 6-page “journal” constructed from 3 folded sheets of blank printer paper, with their name and the title of the journal
- 3- In the classroom, establish behavioral expectations and emphasize the importance of every individual’s to care for the garden.
- 4- Discuss appropriate clothing for gardening. Each student will need their journal, a pencil and a clipboard (or something similarly hard to serve as a “lap desk”)

#### **At the garden (approx. 30min):**

- 5- On the way to the garden, teacher/instructor models for the students to be mindful of the edges of the garden, so that they do not trample the plants. Instructor introduces the BHS Life on Earth students.
- 6- Distribute the students, have them sit along the length of the garden. In the journal, with the help of the Life students, focus on the small area right in front of them, draw and label the soil, crops, and any other plants growing around the crops. - 5 minutes
- 7- Instructor introduces the students to kale and the meanings of weed and tend. Weed, any plant growing in competition with our crops. Tend, the actions taken to increase the growth of crop plants by reducing competition with weeds, for access to nutrients and sunlight, but more importantly, water. Life students model weeding around a kale plant. Direct the students to remove all plants (the weeds) growing around the kale. - 5min
- 8- Water, if needed, and if time and participation allow, using cups filled from small buckets, gently around the base of each plant. - 5 min
- 9- Life students give each student a piece of a kale leaf, draw one kale leaf in the journal. Students taste the kale. Do the Kale Happy Dance during the tasting. In the journal, again with the help of the Life students, describe the taste. – 5 min
- 10- Clean up: Turn off the water and return any supplies to the supply area at the north end of the garden. – 5min
- 11- In small groups, Life students lead the Healthy Meal Clapping Game, allowing each student in the circle to respond: “I am standing in the garden, I want my kale with some ... (other healthy/fun food)“. End the activities with affirmation and thanks (hugs optional). – 5min