

# Nutrition to Grow On

A Garden-Enhanced Nutrition Education  
Curriculum for Upper  
Elementary School Children

## Curriculum Highlights

- 🍷 A garden and nutrition education for grades 4-6
- 🍷 Provides 9 lessons consisting of 60 minutes with 30 minutes hands-on gardening
- 🍷 Uses the Social Cognitive Theory
- 🍷 Contains background information in each lesson for the educator and overview of activities.

## Meets California Content Standards

(See Pg. 2 for details)

- English-Language Arts
- Mathematics
- Science



“students... [taught with nutrition lessons and gardening activities] improved their nutrition knowledge scores following the intervention.”

## Overview of Lessons

- 🍷 **Lesson 1: Nutrition and Gardening:** Learn about the origin of our food; plants; and how to plant and grow successfully.
- 🍷 **Lesson 2: Nutrients We Need:** Learn the 6 classes of nutrients; plants and nutrients; and composting.
- 🍷 **Lesson 3: MyPlate:** Prepare garden beds, plant seeds, transplant seedlings, make plant growth charts, identify food groups
- 🍷 **Lesson 4: Food Math:** Identify recommended daily amounts, measure portion sizes and create a daily menu.
- 🍷 **Lesson 5: Food Labels:** Learn and examine the Nutrition Facts label, compare foods and make bug boxes.
- 🍷 **Lesson 6: Get Physically Active:** Learn the importance of physical and mental activities, incorporate exercise daily and water and fertilize the garden.
- 🍷 **Lesson 7: Goal Setting:** Incorporate the dietary guidelines into daily activities, set reasonable goals and examine seed-dispersal mechanisms while creating a new variety of seeds.
- 🍷 **Lesson 8: Consumerism:** Investigate how advertisements influence food choices, examine techniques used to sell products and learn about butterflies.





## Examples of Educational Standards Addressed

For a complete list of standards addressed by Nutrition to Grow On, please see the Application of Nutrition Education Lessons to Selected California Academic Content Standards rubric within the curriculum.

The following is an example of Grade 4 Standards addressed:

### GRADE 4

SUBJECT	STANDARD	Lesson								
		1	2	3	4	5	6	7	8	9
English– Language Arts	<b>Reading</b> 1.1 Read narrative and expository text aloud with grade-appropriate fluency and accuracy and with appropriate pacing, intonation, and expression.		✓							
	<b>Writing</b> 1.4 Write fluidly and legibly in cursive or joined italic.	✓	✓	✓	✓	✓	✓	✓	✓	✓
	<b>Listening and Speaking</b> 1.1 Ask thoughtful questions and respond to relevant questions with appropriate elaboration in oral settings.	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mathematics	<b>Number Sense</b> 1.5 Explain different interpretations of fractions, for example, parts of a whole, parts of a set, and division of whole numbers by whole numbers; explain equivalents of fractions. . . .				✓	✓				✓
	3.1 Demonstrate an understanding of, and the ability to use, standard algorithms for the addition and subtraction of multidigit numbers.					✓				
	3.3 Solve problems involving multiplication of multidigit numbers by two-digit numbers.					✓				
	<b>Statistics, Data Analysis, and Probability</b> 1.1 Formulate survey questions; systematically collect and represent data on a number line; and coordinate graphs, tables, and charts.			✓		✓	✓			
	<b>Mathematical Reasoning</b> 2.3 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.				✓	✓				
Science	<b>Life Sciences</b> 2a. Students know plants are the primary source of matter and energy entering most food chains.	✓						✓		
	2b. Students know producers and consumers . . . are related in food chains and food webs and may compete with each other for resources in an ecosystem.	✓								
	2c. Students know decomposers, including many fungi, insects, and microorganisms, recycle matter from dead plants and animals.	✓	✓	✓			✓			
	3b. Students know that in any particular environment, some kinds of plants and animals survive well, some survive less well, and some cannot survive at all.	✓	✓	✓	✓		✓	✓		
	3c. Students know many plants depend on animals for pollination and seed dispersal, and animals depend on plants for food and shelter.	✓	✓			✓		✓	✓	
	<b>Investigation and Experimentation</b> 6b. Measure and estimate the weight, length, or volume of objects.		✓							
	6c. Formulate and justify predictions based on cause-and-effect relationships.	✓			✓		✓	✓		
6e. Construct and interpret graphs from measurements.			✓							

Morris, JL., Briggs, M., and Zidenberg-Cherr, S. (2002). "Development and evaluation of a garden-enhanced nutrition education curriculum for elementary school children." J Child Nutr and Mgmt 26(2).



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