



Growing healthy keiki, schools, and communities
A program of the Kōkua Hawai'i Foundation

THE GOOD BUDDY GARDEN

Student Workbook

Grade 1

Student's Name: _____

Teacher's Name: _____

Date: _____

www.kokuahawaiifoundation.org/aina

ĀINA In Schools is a farm to school initiative launched in 2006 that connects children to their local land, waters, and food to grow a healthier Hawai'i. In addition to encouraging the use of locally grown fruits and vegetables in school meals and snacks, the program includes a standards-based nutrition, garden, and compost curriculum that empowers children to grow their own food, make informed food decisions, and reduce waste. ĀINA In Schools also promotes field trips to local farms, chef cooking demonstrations in classrooms, as well as waste reduction, garden, and cooking educational opportunities for families and community members.



Six Integrated Program Components

Core components:

- **Nutrition Education** empowers students to try new foods and make healthy choices that will last a lifetime.
- **Garden-Based Learning** transforms the school garden into a learning laboratory where all subjects are explored.
- **Healthy Food on Campus** increases local, fresh products in school lunches and snacks to provide healthy choices and support local farms.

Additional components:

- **Agricultural Literacy** introduces students to where their food comes from and who grows and prepares their food.
- **Waste Reduction** reduces, reuses, and recycles waste in gardens, schoolyards, cafeterias, and classrooms.
- **Family & Community Outreach** raises awareness to support student, family, and community health and wellness.



"As an educator, I appreciate your program on so many levels. Your program does more than simply address state standards, but gives our students meaning and relevance as they study and engage in a living classroom where they literally see the fruits (and vegetables!) of their labor."

School Principal

ĀINA In Schools Curriculum

- The ĀINA In Schools curriculum includes 8 lessons per year for grades K-6 that are standards-based, multi-subject, and hands-on. The curriculum supports a variety of learning styles and covers topics from the Nutrition, Garden, and Waste Reduction components. Successive units enable students to build on previous knowledge while developing a solid foundation in 'āina-based systems thinking. Nutrition and garden lessons also include close to the source, healthy snacks that reinforce key concepts.
- ĀINA In Schools Curriculum Trainings for Educators and online access to all materials via the Kōkua Hawai'i Foundation website enable educators to bring the ĀINA In Schools experience to students throughout Hawai'i and beyond. Lessons meet Common Core and HCPSIII standards for grades K-6 and are easily adaptable for other grades.

Key KHF Farm to School Partnerships

- Co-leader and founding partner of the **O'ahu Farm to School Network**: www.oahufarmtoschool.org.
- Founding member of the **Hawai'i Farm to School & School Garden Hui**: www.hawaiischoolgardenhui.org.
- Hawai'i Core Partner for the **National Farm to School Network**: www.farmtoschool.org.
- Kōkua Hawai'i Foundation is also an Advisory Committee member of the **Hawai'i Environmental Education Alliance**: www.heea.org.

I have been at this school since grade: **K 1** (circle one)

This Pre-Unit Survey is to see what you already know about these topics. It is ok if you don't know any of the answers. You will be learning about these topics this semester. Try your best and have fun!

1. Draw a **circle** around the pair of companion plants:



Sunflower & Radish



Tomato & Basil

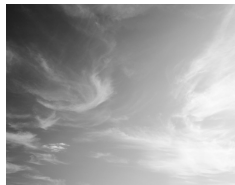
2. Draw a **circle** around the element of nature that is important for photosynthesis:



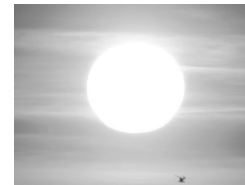
Water



Soil



Air



Sun

3. Draw a **circle** around a beneficial garden creature:



Ant



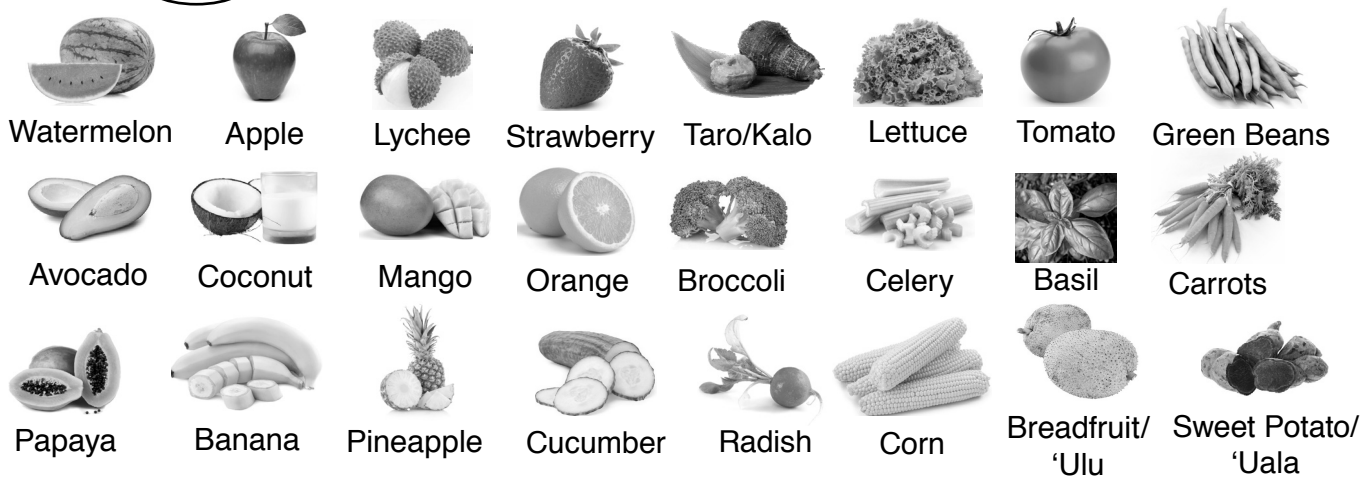
Snail



Bee

4. Do you like gardening? **Circle** ONE answer: Yes I don't know No
5. Do you like eating fruits and vegetables? **Circle** ONE answer: Yes I don't know No
6. Do you like cooking? **Circle** ONE answer: Yes I don't know No
7. Do you like 'ĀINA Lessons? **Circle** ONE answer: Yes I don't know No

8. Draw a **Circle** around all the fruits and vegetables you like to eat:



9. Draw a picture of what 'āina means to you.

Dear Parent or Caregiver:

This semester, 1st graders will be participating in four 'ĀINA In Schools Garden Lessons. 'ĀINA In Schools, a program of Kōkua Hawai'i Foundation, is a farm to school initiative that connects children to their local land, waters, and food to grow a healthier Hawai'i. Program components vary from school to school and include nutrition education, garden-based learning, farm field trips, chef visits, waste reduction, and family and community outreach.

Although the lessons are delivered once a month, the students will be engaged in between lessons with regular garden activities that include watering, weeding, making observations, and spending time in the garden.

Photos and Media Releases: By now each of you should have received a Kōkua Hawai'i Foundation Media Release Form. We hope that you have completed this form and have submitted it to your child's classroom teacher. From time to time, KHF takes photos/videos of our lessons to highlight activities that are noteworthy.

To keep yourself up to date on what your child is experiencing in 'ĀINA, we suggest putting this letter up on your refrigerator or bulletin board and talking with your child as the lessons are delivered. You can help reinforce, engage, and learn along with your child by discussing the the lessons and activities after each lesson. A lesson summary and suggested questions/activities for each lesson are listed below.

Mahalo!

In **The Good Buddy Garden** unit, students will plant a vegetable garden filled with companion (buddy) plants, including tomatoes and basil, carrots and beans, lettuce and radishes, marigolds and nasturtiums. Key concepts include 'āina, companion planting, beneficial garden creatures and pests, decomposers, pollinators, nature's elements, photosynthesis, proper harvesting and vegetable washing, and healthy habits.



Lesson 1 - Companion Plants

In this lesson, students will discover how "buddy" or companion plants work together when planted next to each other in the garden (keeping pests away, adding nutrients to the soil, providing shade for tender plants, and attracting beneficial insects). In groups, students will explain and demonstrate how the buddy plant pairs help each other. They will create a Good Buddy Mural and plant their Good Buddy Garden with tomato and basil, beans and carrots, lettuce and radish, marigolds and nasturtiums.

Questions to discuss with your child:

- What are companion plants?
- Name some pairs of companion plants.
- Explain how these companion plants help each other.

Suggested home activity:

- Start a good buddy garden
- Visit UH CTAHR's Publication and Information Central website (www.ctahr.hawaii.edu/site/info.aspx) for additional info on home gardening.

Lesson 2 - Garden Creatures

In this lesson, students will discover how certain creatures help or harm the garden by playing the Garden Creature Game. In the garden students will explore and discover the creatures that inhabit their garden. Students will add creatures to the Good Buddy Mural they began in Lesson 1 and harvest any available lettuce and radishes from the garden.

Questions to discuss with your child:

- What garden creatures did you observe?
- Describe how different creatures are beneficial or pests.

Suggested home activity:

- Learn more about garden creatures: what is their life cycle, what do they eat, and where do they live?



Lesson 3 - Nature's Elements

In this lesson, students will share garden observations and discuss the elements of nature that are important for the garden's growth: sun, air, water, and soil. In the garden they will harvest, wash and eat any available vegetables, and care for the garden by watering, weeding, and fertilizing with compost and vermicast. They will read the *Living Sunlight* story and learn about photosynthesis.

Questions to discuss with your child:

- Describe your observation of nature's elements in the garden today.
- What is photosynthesis?

Suggested home activity:

- Observe and describe the elements of nature and how they help the gardens.
- Discuss how seasonal changes affect plants and wildlife in Hawai'i compared to others parts of the world.



Lesson 4 - Harvest Party

In this lesson, students will review how companion plants, garden creatures, nature's elements, and people are good buddies that help each other. Students will discuss the health benefits of eating fresh vegetables and exercising, then make Harvest Party hats and harvest, wash, give gratitude for and enjoy the fresh vegetables from their Good Buddy Garden.

Questions to discuss with your child:

- How is the garden our good buddy?

Suggested home activity:

- Commit to daily exercise and healthy eating.
- Continue to grow fresh vegetables.



If you have any questions or are interested in becoming an ĀINA In Schools docent, please do not hesitate to ask.

To learn more about ĀINA In Schools at your child's school, please contact your school's ĀINA Team Coordinator, or contact:



ĀINA In Schools
Program

aina@kokuahawaiiifoundation.org



I WILL BE SAFE



I WILL BE KIND



**I WILL HAVE
AN OPEN MIND**



**I WILL USE
MY TIME WELL**



Student Worksheet
THE GARDEN AGREEMENTS

Name

Class Date

Directions: Draw a picture of you in the garden following the Garden Agreements.
Color the Garden Agreements on page 5 if time permits.

GARDEN BUDDIES

Part 1 Directions: 1) Write the name of each plant next to its picture. 2) Draw a line from each plant picture in column one, connecting it to its buddy plant in column two.

WORD LIST
basil, beans, carrots, flowers, lettuce, radish, tomatoes

COLUMN 1

COLUMN 2









These plants help the whole garden by attracting pollinators: _____



Student Worksheet
THE GOOD BUDDY GARDEN
Lesson 1 * Companion Plants

Name

Class Date

Part 2 Directions: Draw all the plants that you planted today in your good buddy garden. Put the buddies next to each other. Color your picture too!

OUR HEALTHY GARDEN

Word List

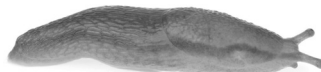
Eat pests
 Eat plants
 Pollinate

Part 1 Directions: 1) Circle “thumbs up” or “thumbs down” next to each garden creature to show whether they are a beneficial creature that helps the garden or a pest that harms the garden. 2) Describe how they help or harm the garden (eat pests, eat plants, pollinate).

Bees



Slugs



Butterflies



Snails



Ladybugs



Toads



Part 2 Directions: Answer the questions below about the radish that you harvested today from your Good Buddy Garden.

1. What is the radish's buddy plant in the garden?
a) carrots b) lettuce c) beans
2. What does the radish do to help its buddy plant?
a) feed it b) shoo away the bugs c) give it shade
3. With an adult, wash, slice and eat your radish. Radishes taste great in salads! What did your radish taste like?



4. Did you like it? Why or why not?

5. Look at your radish and draw a picture of it in the space below.

GARDEN PLANTS HAVE SPECIAL JOBS

Part 1 Directions: Fill in the blank with the correct word from the verb list.

1. Basil plants _____ tomatoes by keeping pests away.
2. Beans _____ carrots through their roots.
3. Radishes _____ tender lettuce plants.
4. Flowers _____ beneficial insects to the garden.
5. Beneficial insects _____ plants and _____ garden pests.
6. Plant leaves _____ sunlight into food.
7. Plants _____ air through their leaves.
8. Plant roots _____ water.

VERB LIST:

absorb
attract
breathe
eat
feed
pollinate
protect
shade
turn

Part 2 Directions: Plants transform sunlight, water, air, and nutrients into food and air for animals and people. What is this process called? Solve these equations to find the answer!

T
 $2+3 =$

H
 $7-4 =$

S
 $1+3 =$

Y
 $0+6 =$

P
 $9-2 =$

I
 $8-7 =$

E
 $4+5 =$

O
 $6+2 =$

N
 $4-2 =$

7 3 8 5 8 4 6 2 5 3 9 4 1 4



Student Worksheet
THE GOOD BUDDY GARDEN
Lesson 3 * Nature's Elements

Name

Class Date

Part 3 Directions: Draw a picture of you and your Good Buddy Garden plants in nature's elements.



Student Worksheet
THE GOOD BUDDY GARDEN
Lesson 4 * Harvest Party

Name

Class Date

Garden Reflection

Directions: Answer the question that your teacher selects by drawing and writing in the spaces provided below.

A large rectangular box containing a drawing area at the top and several sets of primary-ruled lines (solid top and bottom lines with a dashed midline) for writing.



Student Worksheet
THE GOOD BUDDY GARDEN
Lesson 4 * Harvest Party

Name

Class Date

For Teachers: Choose one of the following opinion questions for students, or create your own, regarding their gardening experience this semester.

**Do you like having a garden?
List three reasons why.**

**What did you enjoy most
about the garden?**

**What other types of plants would you
like to grow in the garden?**

**What is your favorite pair of
companion plants?**

**What is your favorite kind of
garden creature?**

**What is your favorite kind of
vegetable to eat?**

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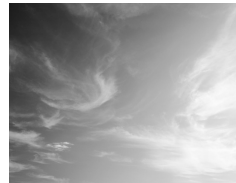
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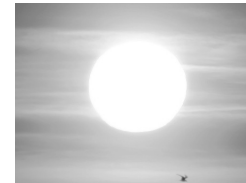
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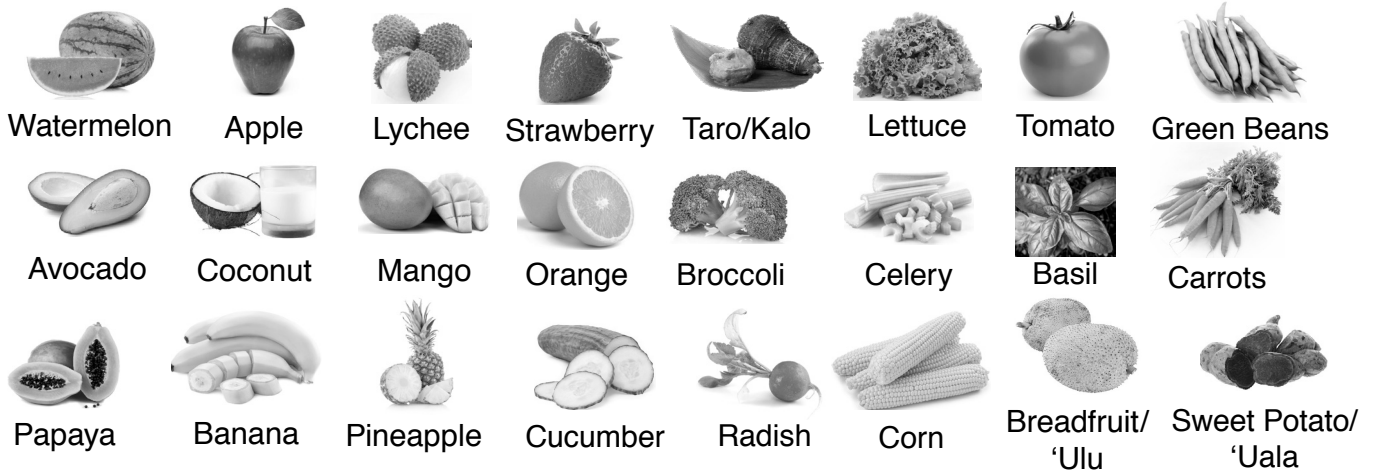
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INSIDE-
COVER
BLANK

OUTSIDE-
COVER
BLANK