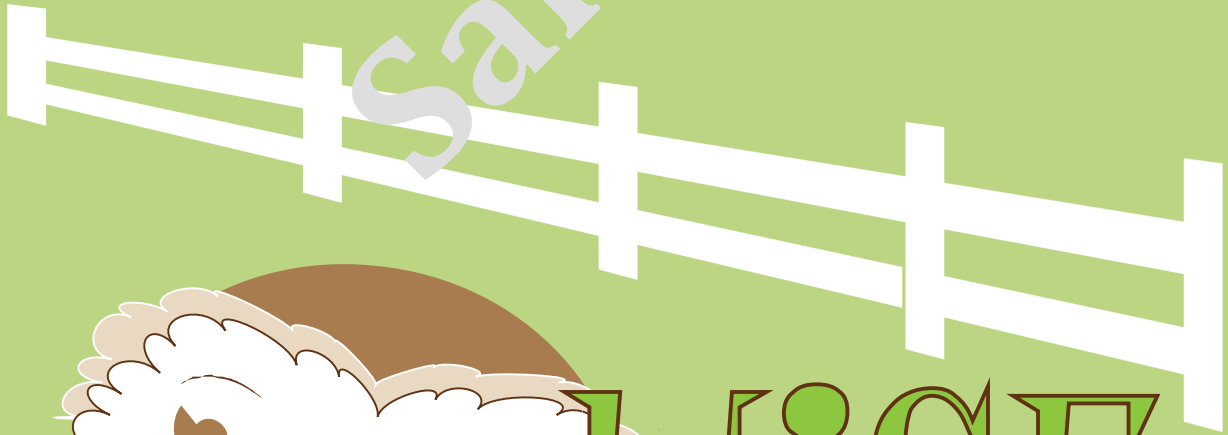




# Sample Discovery Unit



wise



## Fifth Edition : Acknowledgements

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The development and production of these units was made possible with the support of the following reviewers:

Karen Davenport, Irma Carrillo, Danya Johnson, Alecia Hamilton, and Mark Currey.

Funding for this project was partially provided by:

This material is based upon work that is supported by the National Institute of Food and Agriculture, U.S.

Department of Agriculture, under award number 2011-69001-30014. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture.

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Suggested Citation:

Whiteside-Mansell\*, L., Swindle,\* T. & White,\* M. (2015). WISE practitioner manual. Little Rock, AR: RED/UAMS.

\* these authors contributed equally to the WISE curriculum and manual.

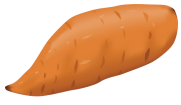


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# Discovery Unit Sample: Sweet Potatoes

## Delicious stuff to know

Sweet potatoes are one of the healthiest vegetables and a tasty way to build a strong body. One medium sweet potato is:

- Cholesterol and fat free
- Low in calories and sodium
- An excellent source of potassium, calcium, iron, beta carotene, and fiber
- A great way to get vitamins A, B1, B6, C, and E

Some sweet facts:

- Sweet potatoes are even more nutritious if cooked and eaten with the skin left on.
- Despite their name, they are not a potato but a root plant in the morning glory family.
- They aren't just for Thanksgiving and Christmas. They can be enjoyed year round in a variety of forms such as baked, mashed, chips, casseroles, and more!
- The skin color may be white, yellow, red, purple, or brown. The flesh ranges in color from white to yellow, orange, or orange-red.
- In the U.S., the terms sweet potato and yam are both used.
- The average American consumes 4.5 pounds of sweet potatoes per year.



**\*Note for Teachers:** This fact sheet is meant to provide you and the parents of your class with more information about this month's fruit / vegetable. However, teachers do not have to teach this page. Kids can focus on the experience with the food !



# Discovery Unit Sample: Tomatoes

## Tomato Vocabulary

The following numbers indicate activities where the vocabulary world could easily be introduced and expanded upon while teaching.

**Blossom** (Unit 2.1)

**Canned** (Unit 2.6)

**Fresh** (Unit 2.3, 4, 5, 6, 7, 8, 9,10)

**Fruit** (Unit 2.3, 4, 5, 6, 7, 8, 9,10)

**Garden** (Unit 2.1)

**Ingredient** (Unit 2.4, 6, 7, 8, 9,10)

**Leaves** (Unit 2.1, 3, 4, 7, 10)

**Plant** (Unit 2.1)

**Product** (Unit 2.6)

**Raw/Cooked** (Unit 2.3, 4, 5, 6, 7, 8, 9, 10)

**Ripe** (Unit 2.1)

**Round** (Unit 2.3, 4, 5, 6, 7, 8, 9, 10)

**Seeds** (Unit 2.3, 4, 5, 6, 7, 8, 9, 10)

**Skin** (Unit 2.3, 4, 5, 6, 7, 8, 9, 10)

**Sour** (Unit 2.3, 4, 5, 6, 7, 8, 9, 10)

**Stake** (Unit 2.1)

**Sweet** (Unit 2.3, 4, 5, 7, 8, 9, 10)

**Vine** (Unit 2.1)



## Skills for Small Chefs

The Tomato unit allows children to learn and practice the following hands on cooking skills:

**Blending** (Unit 2.4)

**Measuring** (Unit 2.4, 5)

**Mixing** (Unit 2.4, 8, 9)

**Picking** (Unit 2.4)

**Pouring** (Unit 2.4)

**Scooping** (Unit 2.6)

**Skewering** (Unit 2.7)

**Slicing** (Unit 2.4, 5, 6, 8, 9, 10)

**Smashing** (Unit 2.8)

**Spooning** (Unit 2.6)

**Spreading** (Unit 2.10)

**Stacking** (Unit 2.10)

**Stirring** (Unit 2.4)

**Tasting** (Unit 2.3, 4, 5, 6, 7, 8, 9, 10)

**Transferring with tongs** (Unit 2.8, 10)





# Discovery Unit Sample: Tomatoes

## Calendar to Guide Experience

	MON	TUE	WED	THU	FRI
Week 1	<b>First Bite:</b> Farmer letter (pg 6)		<b>First Bite:</b> Tomatoes arrive (pg 7)		<b>First Bite:</b> Exploring Fruit/Vegetable (pg 8)
Week 2		<b>Á la carte:</b> New Learning Center Activity (pg 28)		<b>Food Experience:</b> Simple Salsa (pg 10)	
Week 3	<b>First Bite:</b> Second Reading Farmer letter (pg 6)	<b>Á la carte:</b> Extension Activity (pg 27)		<b>Food Experience:</b> Choose from Menu (pg 10-22)	
Week 4				<b>Food Experience:</b> Choose from Menu (pg 10-22)	<b>The Last Bite:</b> Class chart or Paper Cut-out (pg 24)

### ESSENTIAL TO WISE - First Bite & Food Experiences

**First Bite** is a critical step in WISE. This excites children and is a great way to link to many other academic activities. **Food Experiences** provide steps to tasting raw fruits or vegetables and recipes for the classroom that engage children.

### Extends learning and loving food - Á la carte & The Last Bite

Select from exciting ideas in **Á la Carte** to extend the WISE lesson to reading, math, and science. Finally, ending is important too! Choose from **The Last Bite** to pull the month of exploring and fun together.



# Discovery Unit Sample: Apples

## SI : A Letter from the Farmer

**When:** First day of unit, then several repeat readings over the month

**Where:** Whole group gathering, such as circle time

### Supplies:

- Letter from farmer in a sealed envelope
- Apple farm photos from unit

### Optional Supplies:

- Paper apple for Windy's harvest basket
- Recall questions
- Map and star stickers



### Preparation:

- ⇒ Place the sealed letter near Windy's nest display area before the children arrive for the day or session.

### Activity:

#### First reading

Windy brought a letter! During a whole group gathering, call children's attention to the letter. Open the letter and read it aloud to the children, adding the photos to the display board as you go. After reading, add the paper apple to the harvest basket to indicate the beginning of the apple discovery unit.

#### Second reading

During another whole group gathering, reread the farmer's letter. Place a sticker on the map to mark the location of this farm.

#### Third reading

Read the farmer's letter once again with whole or small group. Children can answer the following recall questions:

- Where do the apples grow?
- How do apple blossoms smell?
- What do apples look like when they first begin to grow?
- What helps the apples grow?
- Where does the farmer take the apples after he picks them?
- Ask children, "What else would you like to know about apples?" and record on a chart.

#### Learning Objectives

- Build children's recognition of, and interest in, target food (apple).
- Develops basic understanding that target food (apple) is a farmed food.
- Social/Emotional: Shows curiosity and desire to learn.\*
- Language: Learns basic terminology/vocabulary related to target food (apple).\*
- Language: Understands that print conveys a message.\*
- Social Studies: Shows awareness of roles people play in society.\*

*NOTE: Learning objectives with an \* are Arkansas Preschool Benchmarks. Although these vary from state to state, all are based on child development and learning research.*





# Discovery Unit Sample: Apples

## S2 : Apples Arrive

**When:** No more than a few days after reading the farmer's letter

**Where:** Whole group gathering, such as circle time

### Supplies:

- Whole, washed apples (use these later in the exploration activity; 1 per small group)
- Bushel basket or other container
- Cover for basket, such as a large cloth



The FIRST bite

### Preparation:

- ⇒ Before children arrive, place the apples in the basket and cover the basket to conceal the contents.

### Activity:

- ⇒ Call children's attention to the basket.
- ⇒ Encourage predictions by asking children, "What do you think is in our basket?"
- ⇒ **Provide a hint:** "It is something from Farmer Sullivan." Encourage predictions again.
- ⇒ Uncover the apples with enthusiasm.
- ⇒ Count the apples, if desired.
- ⇒ Let children know that they will have a chance to explore the apples during small group time.



### Learning Objectives

- Encourage children to recall and communicate information about the target food (apple).
- Develop enthusiasm for the target food (apple).
- Language: Uses words to communicate ideas.\*
- Language: Participates in group discussion.\*



# Discovery Unit Sample: Bell Peppers

## S3 : Exploring Bell Peppers

**When:** After bell peppers arrive, but before doing a Food Experience with this food

**Where:** Small group time

**Ingredients:** (for class of 20)

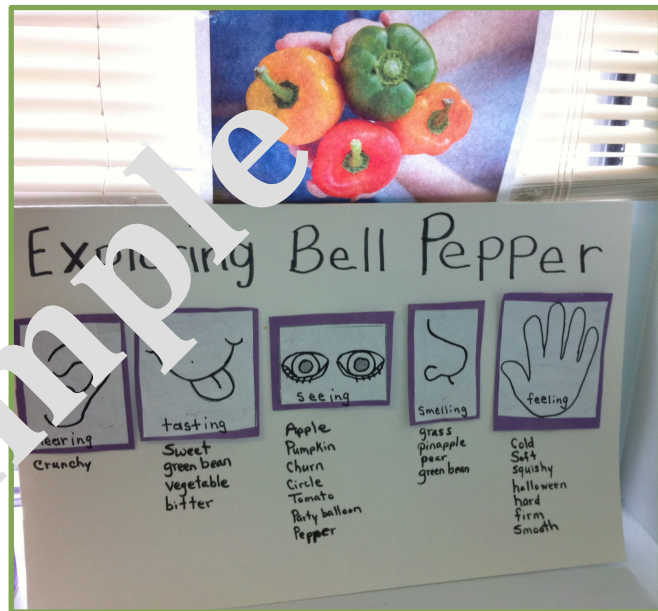
- 4 whole bell peppers - choose 2-3 different colors.

**Supplies:**

- Cutting board
- Sharp knife, such as paring knife
- Chart paper and marker
- 5 senses labels from kit

**Preparation:**

- ⇒ Divide the chart paper into quarters, and add a pictorial label to each section: eye, hand, nose, and mouth.
- ⇒ Clean and sanitize the small group table that you would for snack time, and have children and adults wash hands before the activity begins.
- ⇒ Wash bell peppers.



*Safety note: Do not leave any knife in reach of children without direct, careful adult supervision.*

### Learning Objectives

- Offer an exploration activity that is comfortable for all children, including picky eaters.
- Health: Recognizes different types of foods.\*
- Language: Expands vocabulary.\*
- Language: Participates in group discussion.\*
- Language: Understands that print conveys a message.\*
- Science: Uses senses to learn about characteristics of the environment and collect data.\*



# Discovery Unit Sample: Bell Peppers

## Activity:

- ⇒ Have peppers available for each group to see. Slice one pepper for each group to examine inside.
- ⇒ Give each child a bell pepper to hold.
- ⇒ Ask children to look closely at the bell peppers. How do they look? List children's descriptive words on the section of the chart marked with an eye. As children discuss the bell peppers, use words such as stem and skin in context.
- ⇒ Next, ask children to tell you about how the bell peppers feel. List these words on the section of the chart marked with a hand. Introduce words such as smooth, shiny, bumpy, and firm.
- ⇒ Slice a bell pepper and give each child a piece. As they examine their cut pieces, are there any words that children would like to add to the sight and/or touch lists?
- ⇒ Invite children to smell the bell peppers. How do they smell? Record children's descriptions on the section of the chart marked with a nose.
- ⇒ Remind children that bell peppers are not hot peppers. Invite children to taste their pepper pieces, and record children's descriptions of the taste and texture on the section of the chart marked with a mouth.



The FIRST bite

## Helpful Hints:

- Many children associate the word “pepper” with unpleasantly hot/spicy tastes and foods. During this unit, try referring to our peppers as “sweet bell peppers” to help reduce children’s anxiety about tasting and eating this food.





# Discovery Unit Sample: Berries

## SA : Food Experience: Many Forms of Fruit

**When:** After introductory activities (farmer letter, berries arrival, exploring berries)

**Where:** Small Group time

### Ingredients:

- Strawberries OR blueberries - choose 3 or more forms of the same fruit: Fresh, Canned, Frozen, Freeze-dried, Dried. Acquire enough for each child to have a small tasting portion of each type.

### Supplies:

- Bowls for each fruit
- Small spoons and tongs for serving
- Small serving plate or napkin for each child; spoons for tasting
- Chart paper or dry erase board and markers



### Preparation:

- ⇒ Gather ingredients, tools, and supplies.
- ⇒ Clean and sanitize the work table as you would for a meal or snack, and have children and adults wash hands before you begin.
- ⇒ Wash fresh ingredients. Slightly thaw frozen ingredients.

### Activity:

Lead the children through the following exploration of the forms of fruit selected:

- ⇒ Some of our blueberries were picked straight from the garden and put in the refrigerator. They are fresh. Can you guess which ones? As children identify the fresh berries, encourage them to explain their reasoning.
- ⇒ Some of our blueberries were dried in the sunshine, until almost all of the juices inside them dried up. Can you guess which ones? As children identify the dried berries, encourage them to explain their reasoning.
- ⇒ Some of our blueberries were placed in the very cold freezer, until the juices inside them were frozen like ice. Can you guess which ones? As children identify the frozen berries, encourage them to explain their reasoning.
- ⇒ Some of our blueberries were cooked in juice and water, and sealed up tightly in a metal can. Can you guess which ones? As children identify the canned berries, encourage them to explain their reasoning.
- ⇒ Some of our blueberries were spread on trays and placed in a special machine that pulled almost every bit of water out of them. Can you guess which ones? As children identify the freeze-dried berries, encourage them to explain their reasoning.
- ⇒ Children can use spoons and tongs to transfer some of each kind of berry onto their plates to taste.
- ⇒ As they taste, make an informal chart recording children's responses to each form of fruit. For example, canned blueberries might be described as "juicy and sweet." while freeze-dried berries might be described as "crunchy and sour."
- ⇒ How are the berries the same? How are they different?
- ⇒ Don't forget **Windy's "Who tried it?"** chant! As a change of pace, Windy might also ask each child about which of the forms of fruit was his/her favorite.







# Discovery Unit Sample: Berries

## Links for Learning:

This activity provides the perfect opportunity to practice using comparative and superlative adjectives: chewy, chewier, chewiest; sweet, sweeter, sweetest; and so on. Have informal conversations with children as they taste, taking care to model these words.

## Helpful Hints:

- Because this activity does not contain any complex cooking tasks, some teachers may be tempted to do it with the whole group at once, rather than with small groups. However, the intent of this activity is for children to carefully observe the different berries as they make comparisons. This activity is much more effective with small groups of children, allowing each child to look closely and have plenty of time.
- This activity can incorporate 3-5 different forms of the same berry. With younger groups, offer only three forms so that the activity suits their attention span. Older preschoolers may be interested in exploring four or five forms of berries.
- Wondering where to find our ingredients? Look for fresh fruits near the raisins at the supermarket. Canned berries will usually be found with other canned fruit or in the baking goods aisle, and freeze dried fruits can often be found on the cereal aisle. Many stores also have a display island of dried fruits in the produce section.



## More to Do:

- Create an eye-catching display of the food packages for parents. Encourage children to tell their parents about the different forms of fruit.
- Make a graph of children's favorite forms of fruit.
- For younger preschoolers, take a clear, close-up photo of each form of fruit. Print two copies of each photo and laminate or seal with clear contact paper. Use the photos as a matching game.
- Invite older preschoolers to fold a piece of paper, dividing the page into as many sections as you have forms of fruit. (For example, if you are offering fresh, canned, dried, and frozen berries, divide the page into fourths.) Provide markers, crayons, or colored pencils and encourage children to make a sketch of each of the forms of fruit, with one sketch in each section of their page.
- Create a Venn diagram comparing two of the forms of fruit.

### Learning Objectives:

- **Science: Uses words to describe the characteristics of objects.\***
- **Science: Uses senses to learn about characteristics of the environment.**
- **Science: Makes comparisons.**
- **Health/nutrition: Tries new foods before deciding whether he/she likes them.\***
- **Fine Motor: Uses small muscles for self-help skills.\***
- **Language: Expands vocabulary.\***



# Discovery Unit Sample: Carrots

## The LAST bite...

As your Carrot unit comes to an end, plan one or more of the following closing activities:

- Make a class chart of “Things we’ve learned about carrots.” Pair with children’s drawings about their favorite experiences.
- If you have not done so already, add a paper carrot cut-out to the “Windy’s Foods” harvest basket on your classroom wall. Throughout the year, encourage children to spot carrots during lunch and snack and recall the unit.
- Select from exciting ideas in *À la carte* to extend the WIS session to reading, math, and science.





# Discovery Unit Sample: Green Beans

## Recommended Reading

Include these books during story times and make them available for independent use by children. If you have a classroom lending library, consider including green bean books there, too!

**Beans** by Gail Saunders-Smith, Pebble Books, 2000

**From Seed to Plant** by Gail Gibbons, Holiday House, 1993

**Green as a Bean** by Karla Kuskin

**Growing Vegetable Soup** by Lois Ehlert, Sandpiper, 1991

**How Groundhog's Garden Grew** by Lynne Cherry, Blue Sky Press, 2003

**One Bean** by Anne Rockwell, Walker Childrens, 1999

**Up, Down, and Around** by Katherine Ayres, Candlewick, 2008

**Vera's Baby Sister** by Vera Rosenberry, Henry Holt and Co., 2005

**Water, Weed, and Wait** by Edith Hope Fine and Angela Halpin, Tricycle Press, 2010



## Transition Times: Songs, Poems, and Games

### Ten Little Green Beans

Action rhyme to the tune of "Ten Little Indians"



Pantomime bending and picking green beans while singing:

One little, two little, three little green beans,  
Four little, five little, six little green beans,  
Seven little, eight little nine little green beans,  
Ten green beans in my garden.

Repeat, pretending to stir a pot, ending with the line, "ten green beans on the stove top."

Repeat, pretending to eat, ending with the line,

"ten green beans in my tummy!"

### Plant a Little Green Bean Seed

Sung to the tune of "I'm a Little Teapot"

*Plant a little green bean seed in the ground.  
Out comes the warm sun, shining down,  
Down come the rain drops, soft and slow,  
Up come the green beans to grow, grow, grow!*





# Discovery Unit Sample: Greens

## Leaves We Can Eat

Sung to the tune of "Skip to My Lou"

*Leaves, leaves, leaves we can eat,  
Leaves, leaves, leaves we can eat,  
Leaves, leaves, leaves we can eat,  
Leaves we can eat in the garden!*

*Spinach, lettuce, kale, and greens,  
Spinach, lettuce, kale, and greens,  
Spinach, lettuce, kale, and greens,  
Leaves we can eat in the garden*



## Greens in the Pot

Place a large, metal stock pot in the middle of the playing area.  
Children can toss green bean bags into the pot.

## Garden Leaves

To the tune of "London Bridge;" add actions for each verse.

*Lettuce leaves are growing up, growing up, growing up,  
Lettuce leaves are growing up, in my garden!*

*Pick the leaves and pull them out, pull them out, pull them out,  
Pick the leaves and pull them out, lettuce from my garden.*

*Take the leaves and wash them off, wash them off, wash them off.  
Take the leaves and wash them off, ready for my salad!*

*Toss the salad and mix it up, mix it up, mix it up,  
Toss the salad and mix it up, salad for my lunch time!*

*Take the salad and eat it up, eat it up, eat it up,*







# Discovery Unit Sample: Greens

## Extension Activities

These optional, small group activities may be used to extend children's learning about leafy greens.

### Art:

- This unit is all about leaves we can eat, such as lettuce, collard greens, and spinach. Use garden catalogs and/or cooking magazines to search for other leaves you can eat, such as chard, turnip greens, cabbage, and kale. Cut and glue pictures to create a collaborative collage.
- Collect empty thread spools to use for print making. Peel any labels off of the flat ends of the spools and pair with green stamp pads or shallow trays of paint in various shades of green. Children can dip the spools in the ink/paint and stamp to make interesting designs that may remind them of round, layered heads of lettuce

### Science and Math:

- Did you know that you can sprout romaine and leaf lettuce from the "stump" end of the plant? When you finish with a head of lettuce, save the end of the lettuce - the thick stem where the lettuce grew from the ground. Place "leaf side up" in a bowl with about an inch of water. Place in a sunny windowsill or other well-lit area, and change the water daily. Lettuce leaves will grow rapidly, creating the perfect opportunity for children to measure and record new growth every few days.

### Science and Language:

- Gather two or more kinds of leaf lettuce, such as romaine, red leaf lettuce, green leaf lettuce, or butter/Boston lettuce. Children can use magnifying glasses to look closely as they compare and contrast the lettuces. How are they the same? How are they different? Older preschoolers and kindergarteners can make a Venn diagram to compare two varieties of lettuce.

### Language/Literacy:

- During the sweet potatoes unit, children explored a book called *The Gigantic Sweet Potato* by Dianne De Las Casas. A very similar story, *Grandma Lena's Big Ol' Turnip* pairs well with the leafy greens unit. Both are adaptations of a classic folk tale. Read the two stories to compare: how are the characters and plot similar? How are they different? Children will enjoy acting out and retelling the two stories with props, masks, flannel pieces, or puppets.





Dear Class,

*I'm Farmer Clark, and I have a vegetable farm in Fresno, California.*

*When the vegetables are ready to harvest, I pick them, pack them in boxes and baskets, and load them in my pick-up truck to take to the farmers' market in town.*

*The farmers' market is a place where people go to buy fresh, local fruits and vegetables. They walk around to look at all of the tables and booths, carefully picking out the fruits and vegetables that they want to take home to eat. You can find all sorts of fruits and vegetables at the farmers' market, but people come to my table when they want to buy healthy, delicious greens! "Greens" are what we call leaves that you can eat – lettuce for salads, tasty collard greens, fresh spinach, and more.*

*When a customer wants to buy greens from my table, they talk with me about the cost. If they decide that they want to buy some of my vegetables, they give me their money. I put their vegetables in a bag and give them back some change. I can use some of the money that I made selling greens to buy more equipment for my farm – tools, gas for my tractor, and even seeds for next year!*

*My favorite part of the farmers' market is visiting with all of the farmers and customers. I get to meet mothers, fathers, grandparents, kids, and even pets! All sorts of people come to the farmers' market! At the end of a busy day of meeting people and selling vegetables, I pack up my truck and drive back home to my farm. The farmers' market is over for the day, but I'll be back again next week!*

*I'd like to share some of my greens with your class, too. I'll pack a special box just for you. Be on the lookout for greens!*

*Your friend,*

*Farmer Clark*

