

# November

## Pumpkins and Winter Squash

### SUGGESTED SCHEDULE

Week 1: Discovering Pumpkins and Winter Squash

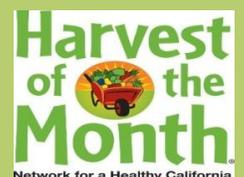
Week 2: From Seed to Pie

Week 3: Winter Squash Inside & Out

Optional Activities



Urban & Environmental  
Policy Institute  
OCCIDENTAL COLLEGE



# Pumpkins and Winter Squashes

## Week 1: Discovering Pumpkins and Winter Squash

### MATERIALS

1 pumpkin  
1, 2 or all: Acorn, Spaghetti or Butternut Squash  
Fresh Fruit and Photo Cards  
Balance or scale  
Paper cups  
String  
Ruler  
Large paper or chalkboard to record observations (column for each squash)

### LEARNING STANDARDS

#### Head Start Learning Domains

- Language Development
- Literacy Knowledge and Skills
- Logic and Reasoning
- Mathematics Knowledge and Skills
- Science Knowledge Skills

#### DRDP-R

- Language and Literacy Development, LLD1, LLD3, LLD4,
- English Language Development, ELD1, ELD2, ELD4
- Cognitive Development, COG3, COG4, COG5
- Mathematical Development, MATH1, MATH2, MATH3, MATH4, MATH5

### LESSON

- 1) Wash the pumpkins and winter squashes.
- 2) Show the students the photo cards (Pumpkin, Winter Squash [clockwise from top is Spaghetti, Butternut, and Acorn Squashes] and Winter Squash varieties) and compare them to the real ones in the classroom.
- 3) Ask the class to use their senses (eyes, ears, hands, nose, and mouth) to describe the *outside* of the pumpkin and squashes. Chart their answers.
- 4) Have the students estimate which one weighs the most. Weigh each one to determine the heaviest and lightest. Have the students estimate which squash or pumpkin is the fattest (widest). Using the string, have the children measure the circumference of each.
- 5) Chart the information learned from the weighing and measuring.
- 6) Ask "what do you think is inside each of these squashes?" They may or may not say "seeds."
- 7) Cut open the top to reveal the seeds. Ask them to estimate how many seeds are in each (or how many cups the seeds will fill).
- 8) Scoop out the seeds and have the children compare each pile of seeds. Chart their comparisons.
- 9) Be sure to point out where the "meat" of the pumpkin is- the part we eat.
- 10) Direct students to separate the seeds from the pulp. Ask the class to use their senses (eyes, ears, hands, nose and mouth) to describe the *inside* of the pumpkin and squashes.
- 11) Fill cups with seeds. Compare which squash has the most and least seeds. (optional) Count the seeds to see whose guess was the closest.
- 12) Have the children come to conclusions by comparing and contrasting their pumpkin and winter squashes observations. Display the chart in the classroom.
- 13) Save the seeds *separately* for other activities in the month such as in Week 3 (wash and dry them on a sheet of newspaper).

Students will...

- \* compare and contrast pumpkins and winter squashes.
- \* estimate and measure pumpkin and winter squashes to determine the size and weight of each.
- \* investigate and compare the outside vs. inside of pumpkins and winter squashes.
- \* estimate which has the most seeds.



# Pumpkins and Winter Squashes

## Week 2: From Seed to Pie

### MATERIALS

*Pumpkin Circle* by George Levenson  
Food Experience Ingredients

### LEARNING STANDARDS

#### *Head Start Learning Domains*

- Physical Development and Health
- Approaches to Learning
- Language Development
- Literacy Knowledge and Skills
- Logic and Reasoning
- Science Knowledge and Skills
- Social Studies Knowledge and Skills

#### **DRDP-R**

- Language and Literacy Development, LLD1, LLD3, LLD4, LLD5, LLD6, LLD7, LLD9
- English Language Development, ELD1, ELD2, ELD3, ELD4
- Cognitive Development, COG1, COG3
- Health, HLTH2

### LESSON

- 1) Read *Pumpkin Circle*. Discuss with students how pumpkins grow from a seed. Show them some dried pumpkin seeds from the previous week.
- 2) Encourage the students to describe the stages of a pumpkin growing from seed to vine, to flower, to small green pumpkin, and to a large orange pumpkin.
- 3) Ask the class, "In the book what did they do with the pumpkin after they picked it?" (Made a Jack-o-lantern).
- 4) Explain that a pumpkin is a vegetable that people eat. Ask the students to name different foods made from pumpkins (e.g. pumpkin pie, pumpkin bread, pumpkin seeds, etc.). Yellow and orange vegetables like pumpkins and squashes are good for our eyes and keep our bodies healthy (strengthen the immune system).
- 5) Ask if anyone has ever gone to a pumpkin patch or a farm that grows pumpkins. Tell the class that this month farmers' markets will have lots of different kinds of pumpkins and other squashes that you won't see in a store. Ask your family to visit the farmers' market this month!
- 6) As a class, make the food experience recipe. Refer to **Conducting an In-Class Taste Test** for ideas on how to engage the class. Have students put a sticker on either the "I Like This" or "I Don't Like This Yet" columns of the taste test sheet, or have them write or initial their name if they are able to do so.

Students will...

- \* be able to describe the life cycle of a pumpkin.
- \* be able to identify that pumpkins grow on a vine.
- \* be re-introduced to the concept of "from seed to table."



# Pumpkin Dip/Mini Pumpkin Pies

Serves 16 · Prep time: 70 minutes · Cook time: None



Nutrition Facts	
Serving Size 1 Tbsp Dip (57g)	
Servings per Recipe 16	
Amount Per Serving	
Calories 90	Calories from Fat 15
% Daily Value	
<b>Total Fat</b> 1.5g	3%
Saturated Fat 0g	2%
Trans Fat 0g	
<b>Cholesterol</b> 0mg	1%
<b>Sodium</b> 190mg	8%
<b>Total Carbohydrate</b> 16g	5%
Dietary Fiber Less than 1g	5%
Sugars 8g	
<b>Protein</b> 3g	
Vitamin A 80%	Vitamin C 2%
Calcium 6%	Iron 4%
Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.	

## Ingredients:

- ½ can (15 ounces) pumpkin\*
- 8 ounces fat-free cream cheese, softened
- 2 Tablespoons brown sugar
- ½ teaspoon cinnamon
- ½ teaspoon pumpkin pie spice
- 16 rectangle graham crackers

\*or use pumpkin puree recipe from optional "Pumpkin Bread" recipe

## Directions:

- 1) Open the can of pumpkin and place in a bowl. Cover and refrigerate at least one hour prior to making this recipe (so the dip will be chilled).
- 2) Place the remaining items into the bowl of pumpkin and mix together until creamy.
- 3) Place one tablespoon of the pumpkin dip on each plate with a graham cracker.
- 4) Taste!

## MATERIALS NEEDED

- Bowl
- Can opener
- Whisk/fork
- Plate

## CHEF'S NOTES

- Allow crème cheese to warm to ambient temperature for 10 minutes before mixing

Developed by Network for a Healthy California- Merced County Office of Education

	Snack
Fruit	
Vegetable	
Grain/Alternative	1/2 serving ✓
Meat/Alternative	0.5 oz ✓
Milk	

A ✓ indicates that this food group qualifies for CACFP crediting. If two categories are checked off, then the recipe qualifies for CACFP reimbursement. The nutrition facts are provided to you for CACFP creditable recipes.



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# Pumpkins and Winter Squashes

## Week 3: Winter Squash Inside & Out

### MATERIALS

Fresh Fruit and Vegetable Photo Cards  
Construction Paper (colors of squashes and pumpkins used in Week 1)  
Yellow string or yarn  
Dried squash seeds from the first week

### LEARNING STANDARDS

#### *Head Start Learning Domains*

- Physical Development and Health
- Creative Arts Expression
- Language Development
- Literacy Knowledge and Skills
- Logic and Reasoning
- Science Knowledge and Skills

#### **DRDP-R**

- Language and Literacy Development, LLD1, LLD2, LLD3, LLD4
- English Language Development, ELD1, ELD2, ELD3
- Cognitive Development, COG1, COG3
- Math Development, MATH1, MATH3
- Physical Development, PD3
- Health, HLTH2

### LESSON

- 1) Show the students the pictures of the squashes.
- 2) Review which winter squashes the class explored and what they looked like inside and out (can use photo cards). Ask the students to describe what the inside and outside of the squash was like. Note the color and texture (slimy, rough, bumpy, smooth, gooey, etc.). Refer to class chart from Week 1.
- 3) Show the students the dried seeds from the different squashes.
- 4) Tell the students that they are going to get to draw a winter squash of their choice.
- 5) Using pencils do a direct drawing of winter squash on colored paper. Have the students draw a winter squash on the paper and have them cut it out.
- 6) Have the students write their names on the front using crayons if they can.
- 7) On the backside of the squash cut out, have the students glue pieces of yellow yarn to represent the strings inside the squash. Have the students count out 5 corresponding seeds and glue them on the string. Allow to dry.
- 8) Hang the cut outs in the classroom or tape to windows so both sides are displayed.

Students will...

- \* be able to describe the inside and outside of winter squashes.
- \* draw a winter squash.
- \* match the dried seeds to their winter squash.



# Extending the Learning Experience

## Optional Supplemental Lessons

### WEEK 1 (optional)

Set a table aside for a **Squash Discovery Lab**:

- Set up a table or area with a green pumpkin (with a small patch of orange on it), two small pumpkins, one large pumpkin and an array of gourds.
- During free play time encourage them to sort them by color, shape and texture (bumpy and smooth).
- Encourage them to lightly tap them. What sound does it make? Are some louder, deeper, etc.
- Make available scientific tools such as measuring tapes/rulers, a scale, magnifying glasses, etc.
- Explore the various seeds and observe them as they dry over the next few days.
- When some are dry, open them to reveal the seed within.
- Make available paper, pencils and crayons for students to draw their observations.
- Teachers can write down the student's observations on each student's paper or collectively on one large paper.
- Will the green pumpkins turn orange now that it is no longer on the vine?
- Observe the pumpkin over the next 2 weeks to see what will happen.

### WEEK 2 (optional)

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**Fingerplay Song:** *Pumpkin Trees* by Deirdre Banks

<b>It's harvest time and what do I see?</b>	Put hand to forehead, look around
<b>Pumpkins! Pumpkins in a tree!</b>	Point upward
<b>In a tree? That can't be!</b>	Place hands on cheeks.
<b>Where, oh where, should pumpkins be?</b>	Throw hands outward
<b>On the ground? Yes, on the ground!</b>	Point to ground
<b>That's where pumpkins should be found!</b>	Place hands on hips

### WEEK 3 (optional)

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**Do Pumpkins Float?** (explore as a class or in small groups)

You can create a large graph with the question "Do Pumpkins Float?" and write the children's names in the "yes" or "no" column to chart their predictions or simply ask the students to raise their hands for "yes" or "no" and take a count.

Fill a large bucket with water. Have a student place a small pumpkin in the water.

Does it float?

How about stem up, stem down, sideways?

Ask the class to guess why it floats. (It floats because it is hollow inside and filled with air like a balloon)

You can also test if other fruits or vegetables will float, be sure to ask the class what their predictions are before testing.

Some fruits and vegetables to consider: apples, peppers, carrots, zucchini.



# Pumpkin Apple Butter

Serves 12 (4 tablespoons) · Prep time: 10 minutes · Cook time: 1 ½ hours



Nutrition Facts	
Serving Size 4 Tbsp Butter (90g)	
Servings per Recipe 12	
Amount Per Serving	
Calories 120	Calories from Fat 5
% Daily Value	
<b>Total Fat</b> .5g	1%
Saturated Fat 0g	1%
Trans Fat 0g	
<b>Cholesterol</b> 0mg	0%
<b>Sodium</b> 150mg	6%
<b>Total Carbohydrate</b> 25g	8%
Dietary Fiber 2g	8%
Sugars 6g	
<b>Protein</b> 4g	
Vitamin A 110%	Vitamin C 4%
Calcium 2%	Iron 10%
Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.	

## MATERIALS NEEDED

- Sauce pan/microwave safe bowl
- Whisk
- Plates

## CHEF'S NOTES

- Microwave cooking works best for in-classroom activities applying 1 minute cooking intervals to allow for mixing.

## Ingredients:

- 1 (15 ounce) can pumpkin
- ½ cup 100% apple juice
- 1 cup apple, peeled and grated
- 2 Tablespoons brown sugar
- ¾ teaspoon pumpkin pie spice
- 6 Cinnamon raisin bagels, sliced into chunks

## Directions:

- 1) Combine ingredients in a saucepan and mix together.
- 2) Cook on medium-high heat until the mixture boils.\*
- 3) Reduce heat to a low and continue cooking for 1 ½ hours. Stir mixture occasionally.
- 4) Store in an airtight container in the refrigerator.
- 5) Serve cold and spread on graham crackers or the cinnamon bagel chunks.
- 6) Enjoy!

\* This recipe can be made using a microwave. Use a microwave safe container and cook on high heat until mixture boils (stir every minute). Continue to cook until it has thickened.

Recipe adapted from [www.VeryBestBaking.com](http://www.VeryBestBaking.com)

	Snack
Fruit	
Vegetable	1/4 cup ✓
Grain/Alternative	1/2 serving ✓
Meat/Alternative	
Milk	

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# Pumpkin Bread

Serves 20 (1/2 slices) · Prep time: 1 1/2 hours · Cook time: 1 hour



## Nutrition Facts

Serving Size 1/2 Slice (66g)	
Servings per Recipe 20	
Amount Per Serving	
Calories 170	Calories from Fat 70
% Daily Value	
<b>Total Fat</b> 8g	12%
Saturated Fat 1g	6%
Trans Fat 0g	
<b>Cholesterol</b> 20mg	7%
<b>Sodium</b> 400mg	17%
<b>Total Carbohydrate</b> 20g	7%
Dietary Fiber 1g	3%
Sugars 11g	
<b>Protein</b> 4g	
Vitamin A 40%	Vitamin C 0%
Calcium 6%	Iron 4%
Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.	

## MATERIALS NEEDED

- Mixing Bowl
- Knife
- Baking Sheet
- 9x5x3 inch loaf pan
- Toothpicks
- Cooling rack
- Measuring cup
- Measuring spoons

## CHEF'S NOTES

- Avoid using walnuts if any of the children are allergic to nuts
- Do not cut into the loaf of bread when it is still hot, allow it to cool first

## Ingredients:

- 1 ½ cups All-purpose flour
- ½ teaspoon salt
- 1 cup sugar
- 1 teaspoon baking soda
- 1 cup pumpkin purée\*
- ½ cup olive oil
- 10 oz Crème Cheese, fat-free
- 2 eggs, beaten
- ¼ cup water
- ½ teaspoon nutmeg
- ½ teaspoon cinnamon
- ½ teaspoon allspice
- ½ cup chopped walnuts

*\*To make pumpkin purée, cut a pumpkin in half, scoop out the seeds and stringy bits, lie face down on a foil or Silpat lined baking sheet. Bake at 350 degrees Fahrenheit until soft, about 45 minutes to an hour. Cool, scoop out the flesh. Freeze whatever you don't use for future use. Or, if you are working with pumpkin pieces, roast or boil them until tender, then remove and discard the skin.*

## Directions:

- 1) Preheat the oven to 350 degrees Fahrenheit.
- 2) Sift together the flour, salt, sugar and baking soda.
- 3) Mix the pumpkin, oil, eggs, ¼ cup water, and spices together. Then combine with the dry ingredients, but do not mix too thoroughly. Stir in the nuts.
- 4) Pour into a well-buttered 9x5x3 inch loaf pan. Bake 50-60 minutes until a thin skewer poked in the very center of the loaf comes out clean. Turn the bread out of the pan and let cool on a rack.
- 5) Spread 1 Tbsp crème cheese.
- 6) Taste!

Recipe adapted from [www.simplyrecipes.com](http://www.simplyrecipes.com)

	Snack
Fruit	
Vegetable	
Grain/Alternative	1/2 slice ✓
Meat/Alternative	0.5 oz ✓
Milk	

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