

**Informational Books in the Preschool Classroom**  
**Topic of Study: Growing Pumpkins**

*From Seed to Pumpkin* by Wendy Pfeffer, illustrated by James Graham Hale  
*Pumpkin Pumpkin* by Jeanne Titherington

**Introduction**

In this guide children are engaged in activities that primarily support two domains in the *Arkansas Child Development and Early Standards: Birth through 60 months: Emergent Literacy* and **Science and Technology**. The **Learning Goals** (with **Strands**) that precede each activity relates to specific areas of development and learning that are the focus of the activities.

*From Seed to Pumpkin* by Wendy Pfeffer, illustrated by James Graham Hale, is one of the books in the Let's-Read-and-Find-Out science series. In this book children discover how pumpkins grow from a tiny seed to a big orange pumpkin. This same concept will be enjoyed by children as they follow the progress of Jamie's seed as it develops from sprout to harvest in the story book, *Pumpkin Pumpkin* by Jeanne Titherington.

**Connection to Adventures in Learning**

This curriculum guide can stand alone or be used as a supplement to the following topic of study in **Adventures in Learning**:

- Focus Area: Things that Grow – Topic of Study: Vegetables

This curriculum guide can also be used with similar topics of study from any curriculum.

**Materials to Collect and Make**

- Storytelling figures (felt or magnetic) for the story *Pumpkin, Pumpkin*. (See Attachment: [Pumpkin, Pumpkin](#))
- Packet of pumpkin seeds
- Clear plastic glasses
- Drinking straws
- Celery
- Red and blue food coloring
- Ingredients for roasted pumpkin seeds
- Ingredients for pumpkin pies/tarts
- Utensils for roasted pumpkin seeds and pumpkin pies/tarts recipes
- Construction paper pumpkins numbered from 1 to 20 (laminated for durability)

**Teacher Note:** Consider involving children in planting pumpkin seeds in the spring if outdoor space is available and if yours is a 12 month program. Involve children in observing and recording through photos and their dictation, the stages of growth that are so clearly pictured and explained in the book, *From Seed to Pumpkin*.

## Story Presentations

### Learning Goals:

**CD2.4 Holds and manipulates information in memory** (*short-term and working memory*)

**LD1.1 Understands and responds to language (in child's home language)** (*vocabulary and language comprehension*)

**EL1.1 Shows interest in literacy experiences** (*engagement in literacy experiences, variety of interests*)

**EL1.2 Engages in read-alouds and conversations about books and stories** (*story comprehension*)

**EL3.1 Responds to features of books and print** (*book knowledge*)

**ST1.1 Engages in the scientific process to collect, analyze, and communicate information** (*observations, questions and predictions*)

**ST2.1 Demonstrates knowledge of core science ideas and concepts** (*stability and change*)

**ST3.1 Demonstrates knowledge of the characteristics of living things, the earth's environment, and physical objects and materials** (*living things*)

**Book:** *Pumpkin Pumpkin* by Jeanne Titherington

### Procedures:

- Prepare to read the book, *Pumpkin Pumpkin*
- Take a packet of pumpkin seeds, a sheet of paper with each child's name written on it and a pen or pencil to the reading area.
- Show the packet to the children and ask them what they think is in the packet.
- Open the packet and give each child a pumpkin seed to examine and ask them to describe it
- Ask the children, "What do you think will happen if you plant the seed?"
- State that you are going to read a story about Jamie who planted a pumpkin seed and see what happens to his seed.
- Show the cover, give title, author and illustrator. (Explain that the author is the person who writes the story and the illustrator is the person who draws the pictures. Jeanne Titherington is both the author and the illustrator)
- Invite children to look at the cover and describe what they see.
- Read the story so all children can see the pictures in the book.
- Follow up the reading by showing the pages and inviting children to help you read the story.
- Begin to read the words, pointing to the named object in the picture and invite children to say the name of the object. For example, read "Jamie planted a pumpkin \_\_\_\_\_(seed)" as you point to the seed.
- Continue this process of involving children in the reading of the story.
- State that the book will be in the Library Center where they can read it on their own or read it to a friend.
- Collect the pumpkin seeds from the children and place them back in the packet.
- Ask each child to tell you how many pumpkin seeds they estimate are in the packet and write that number beside their name.
- Explain to children that the packet of seeds will be in the Discovery Center where they can help you count the seeds to see whose estimate is the closest to the actual number.

**Book:** *From Seed to Pumpkin* by Wendy Pfeffer, illustrated by James Graham Hale

- Prepare to read the book, *From Seed to Pumpkin*
- Take this book and the book, *Pumpkin Pumpkin*, to the reading area.
- Show the cover of *Pumpkin, Pumpkin* to the children and recall with them what happened when Jamie planted the pumpkin seed. Show some of the pages if children need visual cues.
- Stress to children that the seed Jamie planted became a pumpkin.
- Show the cover of *From Seed to Pumpkin*, state the title, and give the author and illustrator.
- Explain that this book is also about planting seeds that become pumpkins; that the story is longer and gives us a lot more information about how this happens.
- Ask children what they think helps the seeds grow and become pumpkins. Accept all answers.
- Begin to read the book, allowing children time to examine the illustrations and to ask questions and/or make comments about what is happening in the story.
- Call attention to things that are needed in order for seeds to grow and become pumpkins: moist soil (dirt), light, water and air, bees to pollinate the flowers, someone to keep the weeds out.
- Follow up the reading by inviting children to tell you what surprised them about the story. What did they learn from this story that was not in the book, *Pumpkin Pumpkin*?

**Second Reading** of *From Seed to Pumpkin* (small group)

- Plan an additional reading with a small group of children (from four to six).
- Show the cover and state the title, author and illustrator.
- Show the illustrations by placing the book on the floor with pages facing the children and calling attention to details such as the roots of the plant, the sun and the rain on the plants, and the pumpkin stem.
- Give each child a small plastic glass half-full of water and a straw and invite him/her to suck up the water as shown on page 7.
- Read the page about stems sprawling all over the ground. Invite children to sprawl on the floor like the children in the illustration.
- Continue reading the story to the end.
- Invite children to recall their experiences with carving jack-o-lanterns and with eating pumpkin pie.

**Teacher Notes:**

- Give each child an opportunity to be involved in reading the story in a small group.
- Collect the glasses and straws after children have used them and throw away the straws

### **Additional Language and Literacy Activities**

**Learning Goal:**

**EL1.1 Shows interest in literacy experiences** (*engagement in literacy experiences*)

**Storytelling Figures:** *Pumpkin Pumpkin*

- Show children the book, *Pumpkin Pumpkin*, and recall with them some of the highlights of the story.
- Explain that you are going to present the story without the book.
- Use either felt or magnetic storytelling figures to tell the story.
- Explain to children that the storytelling figures will be in the Library Center for them to use.
- Demonstrate and discuss with children the correct way to use the storytelling figures.

**Learning Goals:**

**LD1.1 Understands and responds to language (in child's home language)** (*vocabulary and language comprehension*)

**LD2.1 Uses increasingly complex vocabulary, grammar, and sentence structure (in child's home language)** (*expressive vocabulary*)

**EL3.1 Responds to features of books and print** (*print knowledge*)

**ST1.1 Engages in scientific process to collect, analyze, and communicate information** (*questions, observations and predictions*)

**ST3.2 Uses tools and engineering practices to explore and solve problems** (*knowledge and use of tools*)

**Activity: Carving a Pumpkin**

- Prepare a place to carve a pumpkin, covering the area with newspapers.
- Allow time for the children to feel and smell the pumpkin.
- Knives and special pumpkin carving tools are sharp, so make sure children are sitting a safe distance away.
- Cut the top off the pumpkin.
- Give each child a turn to reach inside with their hand to pull out the seeds and pulp. Some children may prefer to use a large spoon instead of their hand.
- Encourage children to describe how the pumpkin seeds and pulp feel and smell.
- Save pumpkin seeds for roasting (See Nutrition Experiences).
- Carve the pumpkin, explaining to children what you are doing.
- With small groups of children write an experience story using each child's own words with washable markers on large sheets of paper.

**Our Pumpkin**

Taylor said, "Ms. Sarah used a sharp knife to cut off the top."

Beckett said, "The insides were yucky."

Peyton said, "We cook and eat our pumpkin seeds at my house."

Lucy said, "I pulled out lots of seeds."

**Learning Environment**

**Library Center**

- Add the books *Pumpkin Pumpkin* and *From Seed to Pumpkin*
- Add magnetic or felt story board
- Add magnetic or felt figures for the story, *Pumpkin Pumpkin*

## Discovery Center

### **Learning Goals:**

**ST1.1 Engages in the scientific process to collect, analyze, and communicate information** (*observations, questions, and predictions, investigation and hypothesis testing, data analysis and communication*)

**ST3.1 Demonstrates knowledge of the characteristics of living things, the earth's environment, and physical objects and materials** (*living things*)

### **Activity: How Plants Drink Water**

Do this experiment with small groups of children (3 to 5).

1. Take book, *From Seed to Pumpkin* to Discovery Center.
2. Show children the last page titled "How Plants Drink Water" and read the information with them.
3. Explain that they will be involved in an experiment that will help them understand how the tubes in a stalk of celery work.
4. Pull several stalks of celery off the bunch of celery and cut stalks straight across the bottom.
5. Have available a clear plastic glass full of water for each group and red and blue food coloring.
6. Invite each group of children decide on either red or blue food coloring and pour a few drops of the chosen color into the water and stir.
7. Place celery stalks in the water with cut ends down.
8. Invite children to predict what they think will happen. Write down their predictions.
9. Wait about an hour, then check to see how colored water has gone up the tubes in the celery.
10. Take one of the stalks of celery from the water, break in half and see how the colored water has traveled up through the tubes.
11. Check the children's written predictions with what actually happened in the experiment.

### **Teacher Notes:**

- Allow children to do as much of this experiment as possible, with the exception of using the knife to cut stalks of celery.
- Allow all children to be involved in this small group experiment.

### **Learning Goal:**

**MT1.1 Demonstrates number sense and an understanding of quantity** (*number names and count sequence, connection of number, numeral and quantity*)

### **How Many Seeds in a Packet?**

- Recall with children that they estimated the number of pumpkins that were in the seed packet and show them the sheet of paper on which you have written their estimations.
- Have a sheet of paper with numbered circles in rows of five. Make the circles slightly larger than the pumpkin seeds.
- Involve children in putting one seed in each circle, beginning with 1, counting as they add a seed to the next circle
- Say with children the total number of seeds and invite them to look at the sheet of paper with their estimates and help them find the one that is the closest to the actual number of seed in the packet.

### **Learning Goal:**

**MT3.1 Participates in exploratory measurement activities and compares objects** (*seriation*)

### **Putting Pumpkins in Order**

- Store numbered construction paper pumpkins in a clear self-closing bag.
- Start with pumpkins from 1 to 5 and invite one child at a time to put them in order, starting with 1. Assist children who need help with this.
- Add more pumpkins for children who are ready to put more pumpkins in order.

## Nutrition Experiences

### Learning Goals:

**PH2.2 Adjusts grasp and coordinates movements to use tools** (*utensils*)

**PH3.1 Demonstrates interest in engaging in healthy eating habits and making nutritious food choices**  
(*exploration of food experiences*)

**EL3.1 Responds to features of books and print** (*print knowledge*)

**MT3.1 Participates in exploratory measurement activities and compares objects** (*measurement*)

### Roasting Pumpkin Seeds

- Take the book, *From Seed to Pumpkin*, to the area where the nutrition experience will take place.
- Show children the next to last page titled "Find Out More About Pumpkins."
- Read with children the information about roasted pumpkin seeds.
- Explain to children that they will be involved in roasting pumpkin seeds.

#### Roasted Pumpkin Seeds

1 cup of pumpkin seeds (saved from carving pumpkin)	2 teaspoons cooking oil
paper towels	mixing bowl
½ teaspoon salt	cookie sheet

1. Wash seeds and pat dry between paper towels
2. Mix seeds, salt and cooking oil together in bowl
3. Spread mixture on cookie sheet
4. Bake in oven preheated to 350 F (adults only)
5. Let seeds cool
6. Enjoy crisp treat

**Teacher Note:** Allow children turns in preparing seeds for roasting. You or another adult be responsible for the actual roasting of seeds.

#### No Bake Individual Pumpkin Pies/Tarts

mini pie or tart shells (pre-cooked)	mixing bowl
1 16-ounce can pumpkin	large spoon for mixing
1 cup milk	imitation whipped cream topping - optional
2 - 4 oz. pkgs Vanilla Instant Pudding	
1 teaspoon ground cinnamon	
½ teaspoon ground ginger	
¼ teaspoon ground cloves	

1. Combine pumpkin, milk, vanilla instant pudding, cinnamon, ginger and cloves in a large mixing bowl
  2. Allow each child to fill a shell with mixture until its level with the top
  3. Add a spoonful of imitation whipped cream topping if desired.
- Serve pies with a glass of cold milk for snack.

### Teacher Notes:

- Allow children to do as much of the measuring and mixing as possible.
- Create an illustrated recipe chart for children to follow. Read the recipe with them. Show them the spice boxes/jars and point out the name of each spice. Invite children to discuss how each spice smells.
- You and children always wash hands before becoming involved in nutrition experience and before snack.
- Be aware of any food allergies before beginning a nutrition experience.

### **Art Center**

- Label a large piece of tan butcher paper **Our Pumpkin Patch** and post it on the wall.
- Add green, yellow, orange and brown tempera paint to the center.
- Add green, yellow, orange and brown construction paper, scissors and glue.
- Suggest that children create their own pumpkin patch.

### **Gross Motor Activity**

- Create large pumpkin leaves from green butcher paper or construction paper.
- Use the pumpkin leaves to create a maze through which children can traverse in different ways.
- Invite children to crawl through the maze, to walk through the maze, and to pretend to swim through the maze (arms making swimming motions as they walk). Remind them to not touch the pumpkin leaves.
- Invite children to suggest additional ways they can move through the maze.

## **Transition Activities**

### **Learning Goal:**

**CD2.2 Shows flexibility in adjusting thinking and behavior to different contexts** (*adjusting behavior to match context*)

### **Pumpkin Numbers**

- Place numbered pumpkins in a basket. Have same number of pumpkins as children.
- Ask one child at a time to reach into the basket, draw out a pumpkin, say the number and transition to the next activity.
- Involve other children in helping a child who is having difficulty recognizing a numeral.

## **Family Connection and Engagement**

- Send home a note to families explaining that the children are learning about pumpkins and how they grow.
- Invite families who grow pumpkins to provide a pumpkin for the classroom
- Suggest that families take their children to a pumpkin patch or farm or to a farmer's market or grocery store where they can see pumpkins and perhaps purchase one to take home.
- Send home directions for carving a pumpkin into a jack-o-lantern if the family celebrates Halloween.
- Send home a recipe for roasting pumpkin seeds.
- Send home recipe for pumpkin pie.

## **Additional Books**

*Pumpkin Circle-The Story of a Garden* by George Levenson, photographs by Shmuel Thaler

*How a Seed Grows* by Helene J. Jordan, illustrated by Loretta Krupinski