



PUMPKIN PROJECTS

By Carol Vaage

Abstract

Pumpkins offer tangible and rich opportunities for seasonal projects involving exploration, research, and problem-solving outcomes with diverse connections to the curriculum.

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Pumpkin Projects

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Pumpkin Painting

Provocation

Every October, the environment would be changed to a fall inspiration with leaf and pumpkin displays on the floor and tables. I brought in several pumpkins and children were encouraged to bring in their own to add to the display.



Painting Pumpkins – Junior Kindergarten

It was a day of discovery and mystery. The three and four-year-old children took turns at the painting table, with the task of painting an image of one of the pumpkins we had in our room. The only thing was that somehow, I 'couldn't' find the orange paint in the art storage room! The only colours I could find were yellow and red, like mustard and ketchup. I apologized and hoped they could find a way to make a beautiful pumpkin with those two colours.

I gave them each a dollop of the two colours, yellow and red, or *mustard* and *ketchup* and they started to tentatively paint their pumpkins. As you will notice in the photos below, some children used the yellow and red paint separately, while others mixed them immediately and shared their excitement when they found they had made orange.

My reflection:

It would have been easy to tell the children that yellow and red make orange, but much more meaningful if they could discover it on their own. The thrill of discovering primary colours make up the secondary colours was truly exciting for the children. As I added more 'mustard' or 'ketchup' to their paintings as requested, they commented on the changes in colour. A very fond teachable moment memory for me.



Pumpkin Carving

Student and Parent Carving

The schools that I taught in always celebrated Halloween. My personal preference to satisfy children's love of Halloween was to focus on pumpkins rather than the more haunting things. So, every year, we collected pumpkins. Most children brought their own in for carving, but I had several extra on hand.

The pumpkin tools provided were not sharp, but very effective.



Fortunately, there were always a few wonderful parents who came into assist.

Some of the pumpkins were so big that they were almost too heavy for the children to carry.



Cooking with Pumpkins

Roasting Pumpkin Seeds

Every year, I would ensure that some of one pumpkin's insides were collected so that we could make roasted pumpkin seeds. One class was enthralled with pumpkins in their entirety.

First, we had one class-owned pumpkin that we opened and cleaned collaboratively.





The children were amazed by the number of seeds, so I invited them to make a prediction of how many seeds there were. We chose three numbers and the children voted on which number they thought was closest for this pumpkin.

But the task of how to count these seeds caused some concern. Many guesses were made until someone suggested that if they grouped them in clusters of 10 each, it would be easy to count. But not one child guessed there could be as many as 710 pumpkin seeds in one pumpkin!

My reflection:

Using the inquiry or project approach requires that the teacher know the grade curriculum thoroughly, to maximize every opportunity to implement curricular objectives. While the children thought this was an interesting challenge that they created themselves, it was part of the math curriculum.

Cooking the Pumpkin Pulp

After the pumpkin was emptied, the children asked about the pulp – what was it used for and why people never used it at Halloween time. It seemed like a waste to them to just make Jack-o-Lanterns and then compost the pumpkins.

I brought in my food processor and the children took turns holding down the power button until all the pieces were shredded. We filled an enormous bowl with pumpkin.

By this time, children were wondering about how they might be able to cook with it.

They decided to ask their parents for recipes using pumpkin as a key ingredient, and so we compiled a Pumpkin Cookbook. I typed the recipes out and distributed the booklets to take home with them. Two recipes are included here.



From all the recipes submitted, the children chose to make pumpkin soup!



The remainder of the pulp was measured into 2-cup portions and bagged for the children to take home for a family cooking time.

Pumpkin Recipes

Toasted Pumpkin Seeds

2 cups pumpkin seeds
1 Tablespoon oil
1 teaspoon salt

Combine seeds, oil and salt. Spread in shallow pan. Bake for 15 minutes at 350°. Stir twice. Drain on paper towels.

Pumpkin Soup

6 cup chicken broth
1 to 2 (16 oz.) cans pumpkin
1 cup onion, thinly sliced
1 clove garlic, minced
1½ teaspoon salt
½ teaspoon thyme
½ teaspoon pepper
½ cup whipping cream

In a covered saucepan, heat all ingredients except cream to boiling. Reduce heat; simmer, uncovered 20 minutes. Stir warm cream into soup.



My reflection

Sometimes the children's ideas challenge us as teachers. Having never made pumpkin soup myself, I had to trust the process that learning would occur however the cooking experience went.

It turned out to be such a happy day for the class as their soup was a success and was evidence of their creative ideas coming to life. The staff enjoyed the leftover soup at lunch!

Spooky Jack-o-Lanterns and Classroom Environment



My class was always the last one in the school to introduce the Halloween holiday environment. It was at the children's request that we decorate the room.

I brought down my prop box filled with holiday appropriate items and artifacts. As you can see in this photo, the back wall has orange cloth and a grid that supported lights and streamers. The mirror table also filled up with items that could stand, providing a new opportunity for them to see the reflections.

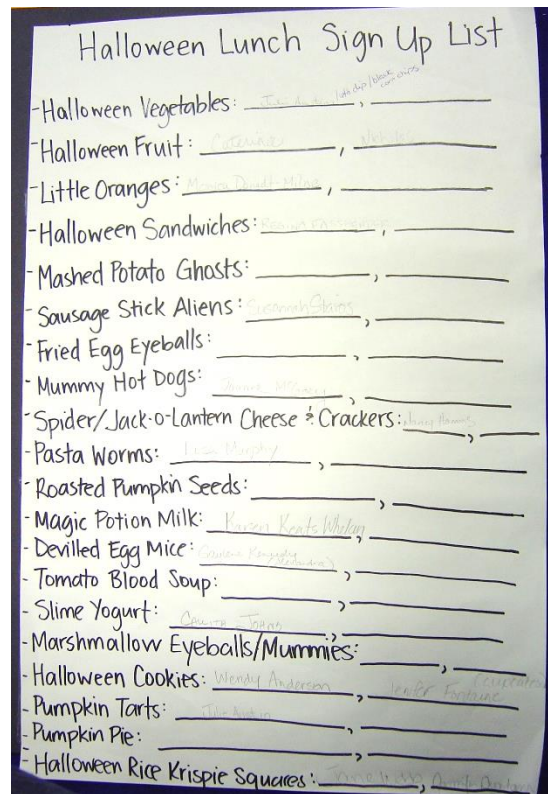
The A-frame bookshelf offered fiction and non-fiction books (e.g., fall leaves, pumpkins)



The day of the school Halloween festivities, each child's carved pumpkin was on their desk with a lit tea light inside. I kept the classroom door closed and the lights off until the bell rang, adding mystery and wonder for their glowing jack-o-lantern effect. First, children had to pass through the spider webs across the doorway, then the streamers, to enter the darkened room. It was like a bit of magic for them to see their jack-o-lanterns glowing and the pumpkins lights experiencing a bit of the scary with very little risk whatsoever.

Creative Lunch Menu

When we discussed the Halloween Party, the children decided they wanted to have a Spooky Lunch and so invented all sorts of creative suggestions. I listed the items wanted on a parent sign-up sheet outside our classroom door. The parents were so obliging and supplied the most original snacks for the class.



Pre-K Literacy

To entice 3 and 4-year-olds into literacy, I created a little predictable book called Pumpkins and Jack-o-Lanterns.

I used clip art for pumpkin images and for Jack-o-lanterns. On one of the last pages, I put a trick in by putting a jack-o-lantern image with the word pumpkin. But if you turned the word over the correct word jack-o-lantern would show. The last page had a huge BOO! Which delighted the children. The word Jack-o-Lantern is such a unique word shape that children pick the words up quickly. I started with a predictable order, then changed it up, added the trick, and a fun scare at the end. I've removed the clip art here but it's easy enough to recreate on your own.

Pumpkins and Jack-o-Lanterns	Pumpkin
Jack-o-Lantern	Pumpkin (repeated a few times to set the predictable pattern)
Jack-o-Lantern	Jack-o-Lantern
Jack-o-Lantern (but Pumpkin word under)	Pumpkin
Jack-o-Lantern	BOO!

Another predictable book for early learners about pumpkin farms, but applicable for Halloween. Again, I have removed the clipart I used.

Scarecrows and Farmers	scarecrow
farmer	scarecrow
scarecrow	farmer
farmer	scarecrow
scarecrow	farmer
farmer	BOO!

My reflection:

These books were so popular for the emergent readers because they could easily gain success by using the picture cues but also by looking at the word shapes to differentiate the text. They were so satisfied to add the loud BOO at the end of the book.

Pumpkin House

One fall, we were so lucky to have a huge box donated to us and when I asked the children what we could use it for, they decided to make a pumpkin house. Their design was simple – just turn it on its side and cover the opening with an orange plastic tablecloth that we had in the classroom. It had to have a Jack-o-Lantern face though.

This kindergarten class enjoyed the enclosed space and so much dramatic play happened between the kindergarten wooden house that was decorated for Halloween and this cardboard pumpkin house.



Scientific Drawings of Rotting Pumpkins

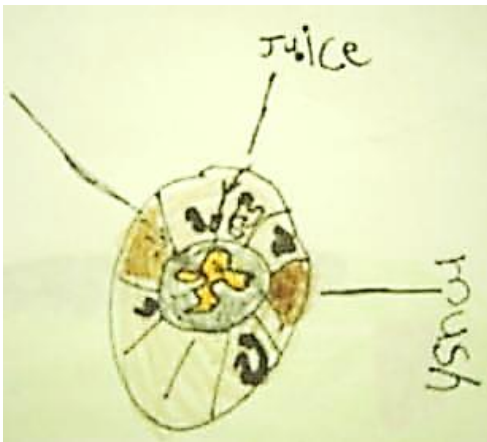
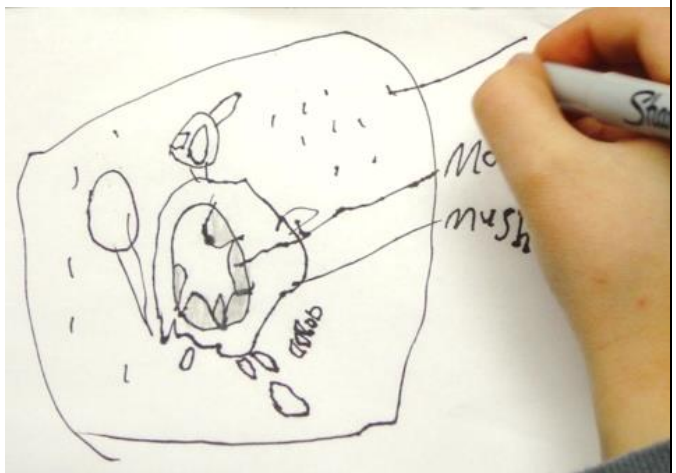
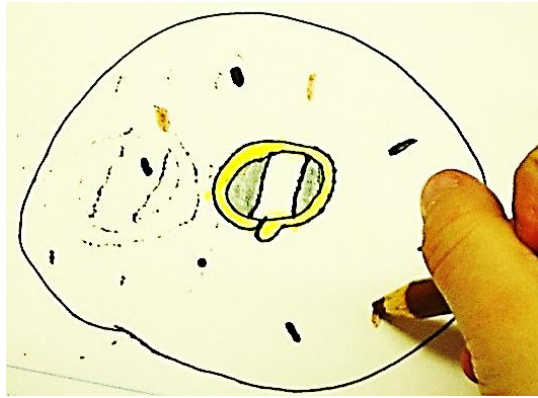
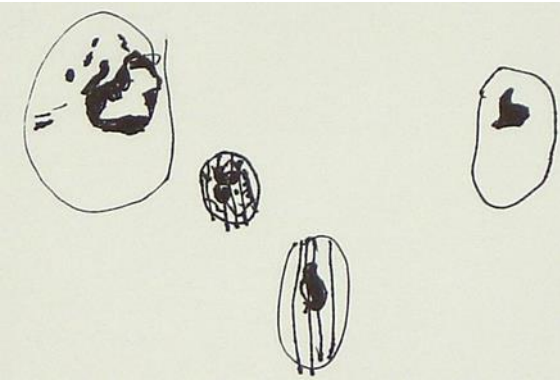
Having pumpkins in the classroom is not only a source for possible projects like making pumpkin soup, doing pumpkin math, but also for watching the natural process of decomposition. Pumpkins will always rot! To set up this experience for success, choose a pumpkin that has been bumped or bruised. Rotting will start at these spots and progress from there; images of our pumpkins rotting are shown here.

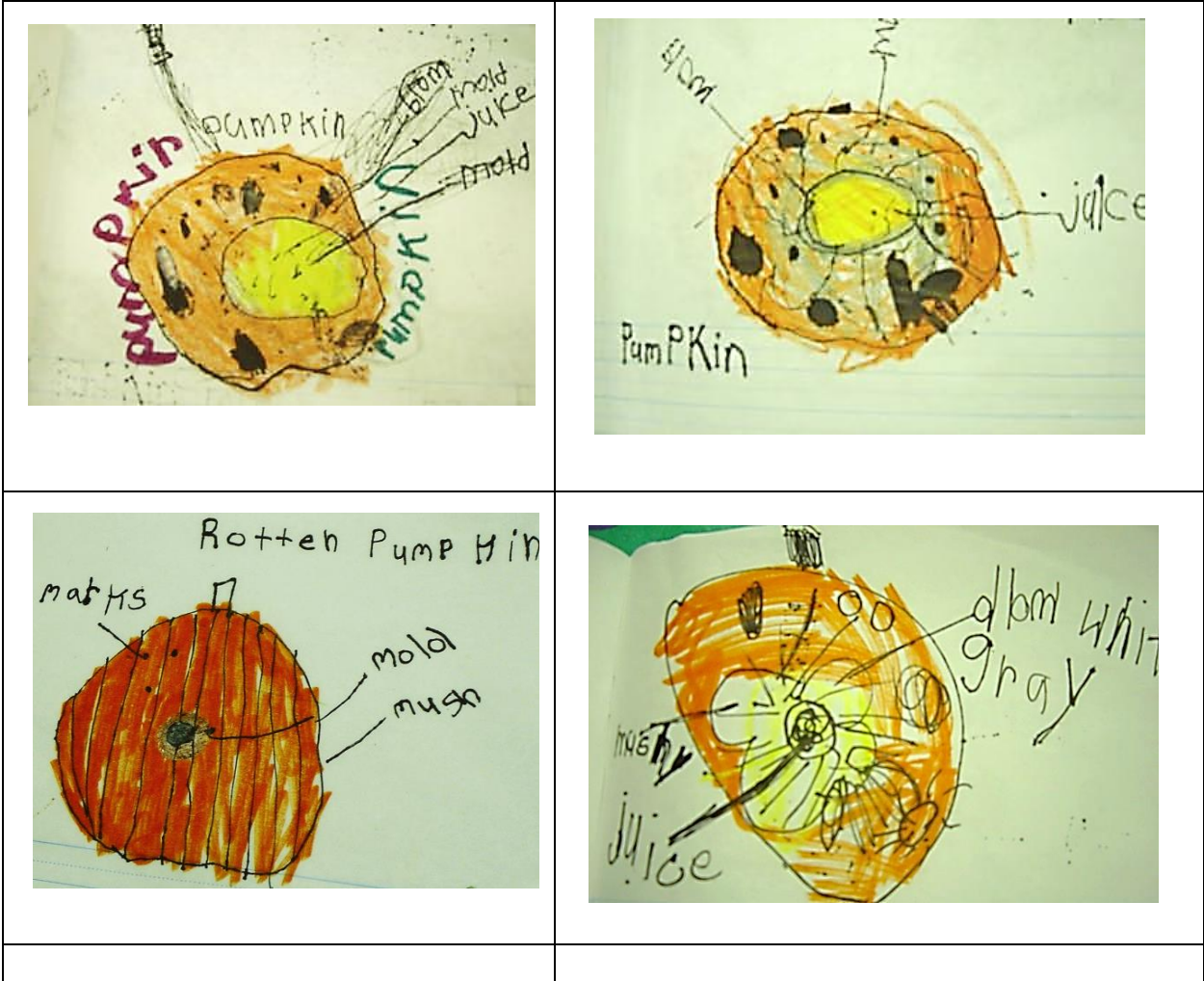
The children documented this process by making scientific drawings several times throughout the process. The following class was fascinated by doing scientific drawings.

This is the photo of the actual pumpkin and following are the children's drawings. Note the labelling that is part of a scientific drawing.



You may notice the problem solving the children encountered with drawing the shape of the pumpkin as well as drawing a 2-dimensional representation from a 3-dimensional object.





My reflection

To do a scientific drawing, a person must draw what you see. By using the children's drawings, I was able to show evidence of each child's observation and representational skills.

Curricular objectives include science (observation, living things), literacy (reading and writing in different formats including labeling), and art.

Rotting Pumpkin Documentation

Introduction

The following text and photos document one day for my kindergarten classes. The children had been interested in pumpkins since before Halloween, demonstrated by their construction of a Pumpkin House, pumpkin carving, and pumpkin art.

Shortly after Halloween, we were reviewing our yearly goals. When I asked the children what they still wanted to learn in kindergarten this year, topics included “learning more about pumpkins” and “making a movie.” I saw an opportunity to blend the two by having the children collaborate on making a “Pumpkin Documentary Video”.

Our plans for the documentary included “rotting pumpkins” which was scheduled to be Scene 8.

Several of our remaining pumpkins following Halloween were placed on a classroom table. Two of the pumpkins showed signs of rotting just after Halloween, so I placed them in a plastic tub for the children to observe the process of change. I overheard a few comments like, “There’s grey and white stuff on these pumpkins.” or “There’s water in here now.” But the children mostly seemed oblivious to the changes taking place.

However, by mid-November, the smell was becoming stronger, and I knew timing was critical to “catch” the learning for the “rotting pumpkins” scene. I had my video camera ready, and I waited...




My reflection

Sometimes the urge is to hurry the children’s progress. In this case, children did not notice how ripe the rotting pumpkins were becoming. Parents were concerned about the smell, but children did not seem aware of this. I spent a lot of time encouraging parents to trust the process, to believe that they would discover this on their own for maximum learning to occur.

I wasn’t exactly sure of how this would develop. All I knew was that we needed to dispose of the rotten pumpkins in some way, and that I wanted the children to problem-solve to reach that same conclusion. I had no preconceived idea of how that would happen. However, I did give a heads up to our custodian, telling him that we would likely be coming to see him for some of his help.

The photos are from this video using a Video-Capture card in my home computer. All text is from that day, from both classes. Any quotes with CV are mine.

Documentation

<p>Today the children came in noticing the smell from our rotting pumpkins.</p> <p>“They’re mushy.”</p> <p>Others: “It stinks.”</p> <p>“They’re rotten because they have white stuff and green stuff. And they’re stinky!”</p>	
	<p>“They’re rotten. It’s yucky.”</p> <p>“Some of the pumpkins are good. “</p> <p>“This one’s good.”</p> <p>“They’re old.”</p>
<p>CV: “Did you smell that?”</p> <p>“Yeah, I can smell it from here. It smells like pigs.”</p> <p>“Yeah,” agreed the others. “Pigs!”</p> <p>“I think it smells like seaweed; we can’t eat it for dinner.”</p>	



CV: "They're not good to eat anymore. What happened to the pumpkins?"

"It was so old."

"They were in the warm too long."

CV: "But look at these ones. They've been in the warm too. They're not like this."

"That's because those ones must have grown faster than them, so they didn't stay as long".

CV: "Where did the juice come from?"

"The pumpkin."

CV: "Juice doesn't come out of this pumpkin, so why is it coming out of this one?"

"Because they're rotting."

"Why did they squish?"

"They were all high up." (CV – tall)

"They're breaking down... They got old and squishy and they're breaking down."





CV: "What is all this white and grey stuff on them?"

"It is fungus."

CV: "Has anyone heard of the word mold before?"

"That's what I meant by fungus."

CV: "When things get rotten, what do we do with them?"

"Throw them out."

CV: "Throw them out? Why?"

"Because! That's what my mom did."

CV: "Why?"

"Because they have fungus on them, and if you touch it, you'll get fungus hand, or fungus stomach, or fungus face, or fungus foot, or anything."

"The pumpkins are rotting."

"It's soft. It's squishy."

CV: What should we do with these pumpkins?

"Throw them in the garbage."

"Throw them out."

"Throw them outside."

CV: "How do we throw it out?"

"Just pick it up and put it in the garbage."





CV: "Well, look, there's juice down here. And how would we pick it up?"
"Get some sort of really big pliers to get them out."

CV: "Why couldn't we just lift them out?"
"Because the pumpkin juice has fungus in it too."
"We could just lift this tub up and put it in the garbage."

CV: "Why couldn't we just lift them out of here?"
"Because there's sticky stuff on the bottom."

CV: "How do you know it's sticky?"
"Because it's wet and sticky."
"Well, we could just put in our hand and pick it up."

CV: "There's someone in charge of taking care of things safely. How about if we go and ask him how we might handle this?"

(children to our custodian)

"I have a pumpkin and I don't like it."

"How do we take it out?"

Others: "It smells yucky." "And it's squishy." "Juice came out of it." "It's stinky." "It has fungus on it and sticky stuff."

"If we pressed on it, it would explode with juice."

"We'd have juice all over our room."

Custodian: "I think we need a bigger garbage. You lead and I'll bring the big garbage can."



Custodian: "You're right. It smells pretty bad."

Class: "See? We told you!"

Custodian: "Let's think about this carefully. We have one bag in here now, but it's pretty thin. We don't want it to break because then we'd have a really big mess. So, I'm going to put another bag in and one more bag. Do you think that's enough?"

Class: "Four. Four!"



Custodian: "We need another garbage bag for my hand. I don't want to get pumpkin stuff on my skin."

"Don't throw the pumpkins!"

Custodian: "I think we have to."

"Yes, we have to."

"Who's going to bring it to the garbage?"

"I think we should have a shovel."

"Hey, I got an idea! We could work together!"

Custodian: "Why don't some of you get on one side, and I'll get on the other side, and we need a whole lot of people to volunteer to watch and give us encouragement. Let's pour it slowly. Ready? Slowly. Slowly."



Custodian: "It's pouring out. Ready? Here goes a pumpkin. Watch out everybody – it might splash."

"It will bang."

Custodian: "There goes one! There goes two!"



"See? The pumpkins are all gone."

Class: "Yeah, we did it!"

"We did it!"

Class: "It's so stinky."

Others: "Yeah, it's so stinky. It's finally gone."

Class: "You did it!"

Custodian: "Yes, we did it! It's finally gone."

My reflection:

I was so relieved the day the children noticed the smell and wanted to do something about it. I printed and shared this rotting pumpkin documentation in the school open area, with enlarged photos and text. The parents came to read, the principal came to read, visitors came to read, but the most excited readers of all, were the children themselves. I trusted in the children that they would observe, I trusted them to find a solution to the problem, and maximum learning was achieved. I don't think any of us will forget the smell of those rotten pumpkins!

It was an opportunity for others to share in children's theory building.

This theory was based on past experience and transferred to a new situation.

"Because they have fungus on them, and if you touch it, you'll get fungus hand, or fungus stomach, or fungus face, or fungus foot, or anything."

This theory was a theory that was quickly adjusted after acquiring a new experience. When dropping something into a metal garbage can, it usually does make a bang sound.

"It will bang." This child nodded his new understanding when he heard the plop and splash sounds.

I was also fascinated by the idea that we should just **throw the pumpkins outside**. It made me wonder a lot about the previous experiences for that child.

The role of involving other school staff in children's projects can be invaluable. Our custodian was a gem and delighted the class with his comments and questions. The relationship of my students with him grew so much that day because of the shared experience. The students began to appreciate the necessity of doing things with safety and cleanliness in mind.

Concluding Thoughts

Throughout all my teacher training and inservices that I attended, the theory of using a holiday 'theme' was discouraged. After all, there was no place in the curriculum that included holiday learning outcomes, other than multicultural awareness. Halloween was definitely not included in this category.

Using pumpkins as a focus of inquiry, through diverse media and studies, I was able to give evidence of authentic, real learning. The longer the time that children had with the pumpkins themselves, the more creative their ideas became. I chose to facilitate and co-create experiences for them based on their ideas. And many, many cross-curricular objectives were achieved.