Niloufar Rezai, Director: Containers was a really interesting topic for both toddlers and preschoolers. This topic can go in so many different directions.

Claudia Ahern, Preschool Teacher: Children had background knowledge of containers, and it was in our classroom; it was in their environment.

Amy Tyler, Preschool Teacher: Not only there was a lot of sensory for the younger age children, but also for the older age children there was a lot of experiments involved.

Getting Started

Amie Theriault, Toddler Teacher: To initiate containers I actually gathered numerous different types of containers to open up a conversation.

Amie: What’s this?
Child: A container.
Amie: All three of these are containers? But they look a little different. Are you sure they’re all containers?

Amie: From there, we kind of came up with the definition that we would use which was, a container can hold something, or carry something. And I partnered them up with a peer, and I said, “I need all of these objects to go from this side of the room to the other side of the room. Can you help me carry them?” So I started handing them little manipulatives, and I’d keep handing them more and more and more. And now they’re struggling trying to hold them all, and they’re dropping them, and it’s not working, and they keep stopping to pick them up, and they’re laughing. So then on the way back I said, “Here, let me give you this basket. Let’s see if this helps.” I think that helped to solidify to them what a container is.
Language and Literacy

Claudia (reading): One day, Alexander found a funny looking box.

Claudia: *The Color Box* book is about a monkey who finds a box and crawls inside. And as he crawls inside, he sees a spot of color. We provided large packing boxes for the children to investigate. They could crawl inside the box; they could close it; there was writing materials that they could make colors on. Because when Alexander crawled through the box, he found or spotted different colors.

Amie: The school bus was a literacy experience because we read the story, *Meow And The Big Box*. There’s a cat who has a big giant box, and the cat transforms the box into a fire truck. I brought in a big box to the room, so the first thing they had to do was build this box. So they worked together and taped up all the sides, and I said, “What should we do with our box?” So they started coming up with all these ideas, and they all chose school bus. We planned out all the materials that they needed; cooperatively they painted it. We placed it in a dramatic play center, and they’ve loved it ever since. And they use it every day.

Child: We got to go all the way to Main Street tomorrow.

Amie: Is that the next stop on your bus route? You need to go to Main Street?

Mathematics

Niloufar: I really like how math fit into the topic of containers. Children had so many opportunities to predict how many of a certain item could fit in a container, or could this item fit in this container.

Claudia: We asked the children if they could match containers to lids. And they had to use higher level thinking skills. Some lids fit different containers, or two containers, but if they didn’t match them correctly, when there was only one or two containers left there might not be a match.

Amy: We did a lot of sorting with containers. The children came up with some really great different categories.

Child: Maybe we could get together big, big, and big.

Amy: Let’s talk to Maura.

Child: Small, big, small, big.

Amy: So size? Do some big ones together and some small ones together?

Creative Arts

Niloufar: There were many opportunities for the classrooms to explore art and music through the use of containers.

Amie: We had them make maracas. They were able to choose what type of container they wanted. And then they were able to choose objects around the classroom to fill their maracas with.
Amie: Did you hear the sound her maraca made when she jumped? Do it again. Jump!

Amie: It led us into all these conversations about the materials and how they sound different and feel different.

Claudia: They created structures in a cooperative group situation. They were given a piece of paper to draw a blueprint of what they were going to construct; what was their structure going to look like. And then from there they used their materials and built their structures.

Child: We need to pick a color here of which straw we want.
Amy: Oh, this is the straw?
Child: Yes.
Amy: And what was this part again? What were you making?
Child: That was a soda can.
Amy: A soda can.

Amy: One particular child was really excited to make a soda can. I said, “Oh, maybe we should make a blueprint for this just so we can stay organized.”

Child: And now the ice cubes.

Amy: And we went step by step with the soda can.

Amy: What will you use the yellow ribbon for?
Child: That’s the lemonade.
Amy: Oh, that’s going to represent the lemonade.

Amy: As he was building we checked off everything—you know, we checked it against the blueprint. Did we have everything that he needed?

Amy: So now we have the yellow lemonade and the blue ice cubes.
Child: All done.
Amy: I think everything is in there. Everything from your blueprint is inside.
Science

Ross Koning: So what part of the plant lives in the container? We call it the roots.

Claudia: Our trip to the greenhouse was great. We’re really fortunate to have Dr. Koning there.

Ross: And how is this container different? How is this container different from those?

Claudia: He pointed out the various containers the plants and flowers were in.

Ross: And this one’s made of peat. So this one’s called a peat pot.

Amy: Two boys took a cardboard container to the water table. I was, of course, very aware of what they were doing when they chose those containers, but I let them take them over and experiment for themselves what they were going to do with them.

Child: Ay, yay, yay! Well, that was a bad idea.

Amy: That’s a teachable moment.

Amy: What is this made out of?
Child: Cardboard.
Amy: Cardboard. What happens to cardboard when it gets wet?
Child: It breaks.
Amy: It breaks.

Amie: With science we did a lot on the materials of the containers, metal and cardboard. And so I showed them some clay containers, and we decided that we would try to make our own.

Amie: How could we make this hold something like a container? What do you think? What would we have to do?
Child: Stick it! That.

Amie: We brought them back kind of as a group, and “Well, let’s try out our containers.”

Amie: You said that this container would hold a pompom. I’m going to give everyone a pompom and I want you to see if your container will hold your pompom.

Amie: So I kind of put a pompom on top of a container.

Amie: What’s happening to the pompoms when we try to put them on our containers?
Child: They can’t fit.
Amie: They can’t fit. Hunter’s won’t fit.

Amie: You know and they could see that the pompoms were rolling off. Why are they rolling off?
Amie: Look! Hunter’s container is holding his crayon. What does Hunter’s container have? What does it have; what’s this?
Child: A hole.

Amie: They were able to see that you needed like an open space along with the walls and the sides in order to get them to contain objects.

Child: Hi, Miss Claudia!

Claudia: We made a telephone out of yogurt containers. As the string is pulled tight, sound waves travel across the string, and the yogurt containers amplify the sounds. And it’s just amazing because if the string is pulled tight, you can clearly hear what the person’s saying.

Amy: We talked a lot about different materials that containers were made out of. So I thought a good experiment to do was to test the kind of the durability of plastic and glass. “What do you think will happen if I take a hammer and I smash the glass jar and if I smash the plastic bottle?” So we wrote down our predictions. And then I first, I smashed the plastic bottle and we realized that the bottle didn’t break but it did get kind of squished. Then I took the hammer to the glass bottle and I smashed that. I put all of the pieces into a safe container. We passed it around, and then the children noticed immediately that the bottom of the glass jar did not break. And many children thought that the bottom must be thicker than the rest of the jar.

What We Learned

Amie: I think the children and the teachers learned just how much we rely on containers in our daily lives. You just couldn’t live your daily life without containers.

Claudia: One of the things that was so nice about this investigation was how using everyday items and thinking of things that you would normally throw away were, was just amazing and how it fit into our curriculum.

Nilofaur: Children learned containers have a purpose. So when selecting a container they were really mindful of what they needed it to do. So the properties of the container became important: the material they were made of, the shape.

Amy: I think I’ve learned from them. That a container is not just what you and I think is a container. It’s not just a milk jug, or it’s not just an orange juice container, but it is a tree because it holds sap. They were so creative—things I never really would have thought of as a container. But when you sit and think about it, that’s what I really wanted them to get out of this investigation. I wanted them to learn what a container was and that a container does hold objects in it—and that’s exactly what they learned.