

Kohl Children's Museum of Greater Chicago Presents

Projects of Chicagoland

**Successful Implementation of the Project Approach
From Early Childhood Connections Participants**

Second Edition

**Edited by:
Erika Gray
Julie Minasian
Mary Piñon**



**KOHL CHILDREN'S
MUSEUM**

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Projects of Chicagoland: Successful Implementation of the Project Approach From Early Childhood
Connections Participants

Prepared for the Chicagoland Project Approach Summer Institute
July 23-24, 2009

Available for download at www.kohlchildrensmuseum.org/projects

First Edition

Edited by: Erika Gray, Margaret Hanly, Annie Herriott, Dave Judy, and Mary Trieschmann
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Second Edition

Edited by: Erika Gray, Julie Minasian, and Mary Piñon
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Published by:

Kohl Children's Museum of Greater Chicago
2100 Patriot Boulevard
Glenview, Illinois 60026

Layout and Design: Ross Bay

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Dear Friends,

For nearly 25 years, Kohl Children's Museum of Greater Chicago has been a strong advocate of the project approach in early childhood education. As the only institution in the Chicago area focusing exclusively on interactive exhibits and programming for young children ages birth to 8, we have witnessed firsthand the power of complex play and the significance of enabling children to direct their own learning experiences. Our interactive environment of 17 hands-on exhibits encourages curiosity, creativity, and self-discovery, many of the key elements of the project approach.

By engaging children's natural interests, steering them into in-depth explorations, and helping them embrace the learning process, the project approach has been a key element of the Museum's Early Childhood Connections (ECC) program. Hundreds of classrooms and day care centers throughout the Chicagoland area have partnered with the Museum through ECC to provide meaningful learning experiences, teacher training, and parent involvement for children at risk of academic failure from schools in low-income communities.

The following collection of projects is a direct result of the hard work, innovation and commitment of the Early Childhood Connections participants who have embraced the project approach and have successfully integrated it into their curriculum. I encourage you to find inspiration from these projects with the hope that you will begin to implement the approach into your own settings.

Enjoy changing the future!

Sincerely,

Sheridan Turner
President and CEO

Learning To Grow.™

Introduction



Kohl Children's Museum of Greater Chicago has trained over 300 early childhood teachers working with children at risk of academic failure on the project approach in the Chicagoland area since 2000. The underlying principles of the Early Childhood Connections program are grounded in the Museum's belief that children learn best when they are engaged, motivated, intrinsically curious and most of all, having fun. The program utilizes the project approach, which encourages children to formulate questions, seek out and discover answers, consider their findings and form conclusions. In this environment, teachers become the facilitators of learning rather than distributors of knowledge. It also encourages **all** children to explore and learn in their own way as well as fostering the development of critical thinking, cooperation and communication skills.

Early Childhood Connections is designed to achieve the following goals:

- To increase the use of the project approach and developmentally appropriate practices in classrooms and childcare settings serving children at risk of academic failure ages 3-8;
- To increase the positive attitudes of teachers and childcare providers toward project approach learning;
- To provide parents with opportunities to play an active role in their children's education.

The Early Childhood Connections Program provides several critical components: professional development for teachers and childcare providers conducted by Dr. Judy Harris Helm, world-renowned expert in the project approach; focused field trips to the Museum; resources and support in the project approach; parent/child in-school activities; family celebrations; and family passes for future Museum visits. The training component consists of three full professional development workshop days conducted in the fall, winter and spring of each school year. Each participating teacher conducts one or more projects in their classrooms and childcare settings during the year of training and has opportunities to share their successes and challenges with their peers.

Throughout the past six years, the Museum has been assessing the program using both quantitative and qualitative methods. Through collaboration with Dr. Jan Perney from National-Louis University, we have concluded that through the rigorous standard of a pre- and post-test control group design, and controlling for initial differences between the intervention and control groups, there is evidence that the Early Childhood Connections Program is producing statistically significant and practically meaningful positive changes in teacher and childcare providers' attitudes toward the project approach and an increase in the use of developmentally appropriate methods and strategies by early childhood educators.

The project approach is a valuable tool for learning. It is our hope that the following projects will motivate early childhood professionals to begin to implement this approach into the everyday lives of their classrooms, centers or homes.

Garbage Project A project by children 2½ – 3 year old Cherished Children Early Learning Center, Mundelein, Illinois Length of Project: 8 weeks Teachers: Sharon Southard and Mo Lanier Participated in Program: 2008 – 2009	
Phase One	<i>Beginning the Project</i> We chose this topic because our kids love to line up along the fence and watch the garbage man empty the dumpster. Our project launch was fun. The kids came in from the playground to find our room trashed with garbage. They looked around in amazement. We worked together to clean up the mess. We've never seen our kids clean up so well before. At circle time, we talked about what they knew about garbage trucks. Some of them knew what color garbage can they had at home, and one child thought that garbage men wore a lifejacket. That was actually a fantastic guess for a 2½ year old; the vests garbage men wear are very similar. None of the children knew where garbage went after the trucks were full, so we knew there was a lot to learn.
Phase Two	<i>Developing the Project</i> We started our investigations by reading books and watching a video on garbage trucks and recycling. That helped us on our way to finding out about our subject. We learned new vocabulary words like "landfill" and "recycle." Next, we made a litter truck cart. We took this cart, dressed up in our apron outfits and cleaned up three playgrounds at our center. We learned people throw a lot of garbage on the ground. We also learned about recycling and had fun making things with garbage, rather than throwing it out. We made a garbage sculpture, an aluminum can train and a bowling game. Parents reported that the kids were showing interest outside of school and that they were definitely learning. When asked, "Where does garbage go?" they could now answer, "A landfill." When making our box garbage truck, one of the boys said, "We need headlights." We involved the parents by having them participate in a garbage game of how long does it take for different types of garbage to disappear. We also gave them information on where to take household items for disposal. For a field site visit we went to a recycling center and landfill.
Phase Three	<i>Concluding the Project</i> To conclude our project, we took another trip around the playground in our aprons and took a picture out by our dumpster. To share our project with parents, we invited them to our room to look around at all of our projects, and the children explained what they had learned. We also presented parents with the children's project folders, their garbage outfits (aprons and nametags), and an "Oscar the Grouch" puppet made by the teachers. The greatest thing of all to our conclusion was that our school purchased recycle bins for paper, bottles and cans; in the future all of our classrooms can learn about recycling and how important it is.

Comments

The subject of garbage trucks was something the kids were definitely interested in and excited about. I loved researching the topic. I think it would have been great for 4 or 5 year olds. Sometimes I was discouraged because I was not sure how much they were really taking in. I think they enjoyed cleaning up the playground (for a short span), and now they know where garbage goes. That's a start, and isn't that what a teacher's job is, to give the start of information? So, maybe we did ok after all.



◀ Teacher Anticipatory Planning Web

► Children working together sorting items that could be recycled or thrown away.



1. Are there seats in the garbage truck?
2. Is the horn loud?
3. Where does the garbage go?
4. How do you pick up the garbage?

One child's comment was "We can't go into the street".

◀ Questions and comments children had about the garbage truck and were later investigated during the project.

Growth of Plants

A project by children 2 – 2½ years old

Paul K. Kennedy Child Care Center, North Chicago, Illinois

Length of Project: 4 weeks **Teachers:** Erica Timms, Donna Chavez, Connie Jones, and Lauren Loechelt

Participated in Program: 2008 – 2009

Phase One

Beginning the Project

The topic of plants was chosen because the children liked picking the dandelions that grew in our play yard in the early summer. To help the children focus, we walked around the VA grounds and pointed out different types of plants. After returning to the center, we helped the children cut out pictures of different plants to make a collage. Besides pulling the weeds, the children knew they needed to water the flowers; this was represented through their play. As the children had comments or questions, a teacher wrote them down and these were discussed during our afternoon circle time. As teachers, our expectations for the project were to focus on the different types and uses of plants, but the children took us in a totally different direction.

Phase Two

Developing the Project

We investigated our topic through books, National Geographic magazines, puzzles, felt board stories, and by growing our own plants. Several teachers at our center grow plants in their classrooms, so the children were able to visit these classrooms and talk with the teachers about plant care. We also continued our walks on the VA property. We were able to get Master Gardener, Dawn Moss-Callahan, from the Botanic Gardens to visit our classroom and talk with us about the life cycles of a bean plant and to plant some bean seeds with us. Some resources that were very valuable to us were a book series about plants written by Gail Saunders-Smith, and our magnifying glasses because the children were able to take a closer look at the different parts of the plants they were working with. Parents were invited to come and talk about their experiences with plants or to try growing plants. The children were also very happy to show their parents their growing seeds each afternoon as they were being picked up. The children represented their knowledge through drawings and through play.

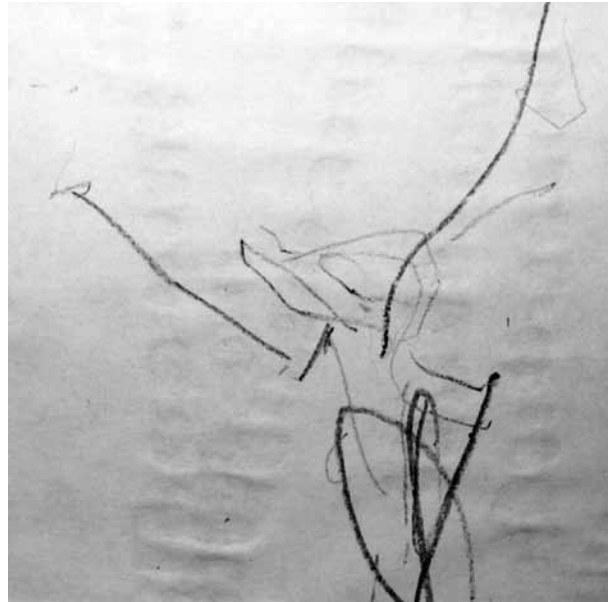
Phase Three

Concluding the Project

Our project is not fully closed. We are still anxiously waiting for our plants to reach full maturity. We made display boards showing the parents what the children were learning. Our plants are proudly displayed in our classroom for all to see. We are hoping that once our plants reach maturity, we will be able to invite the parents to join us in tasting the fruits of our labor. The children learned to care for and respect plants. They also learned the different parts of a bean plant and the different plant stages. Skills that were learned by the children were: sharing, learning to take turns, learning to sit and receive directions before doing a task, focusing on what they are doing, and trying to do things for themselves before asking for help.

Comments

As teachers, we learned the importance of having a hands-on approach to learning. We learned that by being able to use each of their five senses to explore materials, the children learn better and are able to retain more knowledge. Plants were a very good topic for our class because this topic allowed us to learn and grow together; the teachers had little prior knowledge of growing or caring for plants ourselves. The most difficult part of this project was Phase I, getting the children to generate questions for exploration. If I did another project, I would like to do something that required the children to use more of their gross motor skills.



▲ Children created observational drawings of plants. ▲



▲ Children learned how to plant seeds and take care of and cultivate plants in and outside of the classroom. ▲

Our Pet Project

A project by children 11 – 22 months old
Laurance Armour Day School, Chicago, Illinois

Length of Project: 16 weeks **Teachers:** Anthony Bell, Elvira Mata, Annie Jones, and Gabriel Williams
Participated in Program: 2004 – 2005

Phase One

Beginning the Project

This project emerged from the excitement and enthusiasm we observed in our children while visiting the neighborhood fire station. The firemen did all they could to entertain the children, but the children were only interested in the barking sound they heard in the back of the station. Their facial expressions, imitation of the barking, and the kicking of their legs gave a clear message that they were more interested in the barking than in the fire truck or firehouse. The firemen then introduced Shamo to the children. They had a look of amazement on their faces when he appeared. The firemen shared that Shamo was a Dalmatian puppy who was in training to become a fire dog.

Phase Two

Developing the Project

After returning to the school, we discussed the idea of focusing on dogs as a possible topic for our project. We wanted to include the parents' input in our planning, so we asked them about their pets at home. We discovered that some of them had pets other than dogs; they had fish, cats, and birds. We decided the topic of "pets" would be a more appropriate topic for the children to explore.

The children were exposed to books, songs, sounds, artifacts, activities, and music to enhance body movement that represented each pet. The project investigation began. Parents were invited to share their family pets by bringing their pets to visit the classroom, sharing stories through photos, and sharing artifacts (pet toys, collars, and pet beds).

Using our neighborhood and community resources contributed to the learning process. On our daily walks, we saw many people in the park and on their porches with their pets. They were willing to share the names and dispositions of their pets. We also looked at the aquarium and the aviary in the medical center's office building which is adjacent to our center, on many occasions.

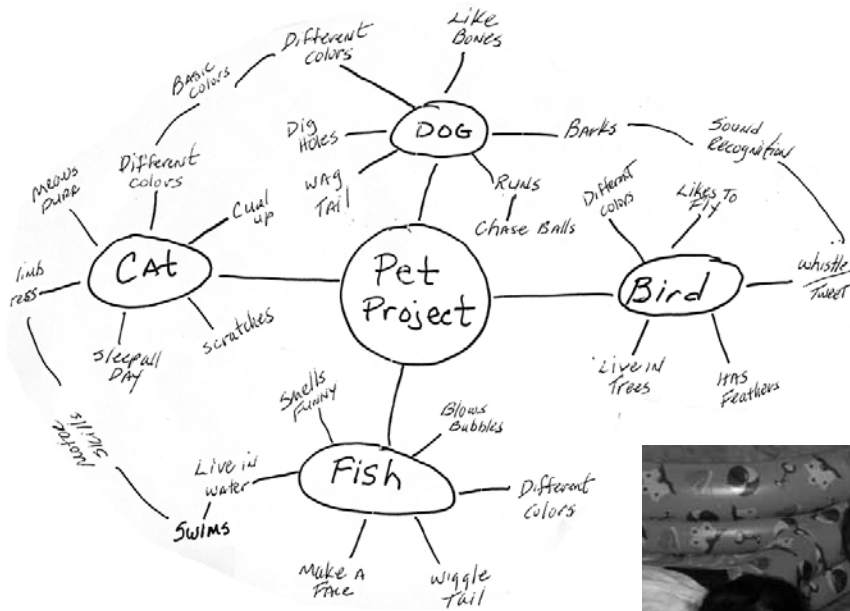
Phase Three

Concluding the Project

As a culminating event, the children, teachers, and parents transformed our classroom into a pet shop. On a Saturday morning, our families attended the grand opening of the "Pet Shop." All of the constructions – which represented each pet – created by the children were displayed in the classroom. For example, we had a bird cage, a dog house, a fish tank, and a cat's pillow. The constructions allowed the children to represent the many characteristics and behaviors of each pet.

Comments

Our Pet Project was the first project in our classroom. When we started, we were only looking for some other curriculum focus to extend the children's learning. We used the project approach as a method of guiding the implementation of our curriculum along with meeting the children's basic needs. The moment we observed how enthusiastic the children were about pets and when we recognized how they were trying to express their interest in them, we began to see the value of using the project approach in our classroom.



▼ Infants and toddlers engage in learning about fish environments.

▲ Teacher assisted infants and toddlers in creating a web for their pet project.



▲ A parent visits the classroom as an expert on dogs.



▲ Toddlers investigate how dogs play with balls.

Our Wheel Project

**A project by children 11 – 22 months old
Laurance Armour Day School, Chicago, Illinois**

Length of Project: 16 weeks **Teachers:** Anthony Bell, Elvira Mata, Annie Jones, and DeShonda Webster
Participated in Program: 2005 – 2006

Phase One

Beginning the Project

We noticed that the children were looking out of the windows at different times of the day. They would become especially excited when they heard the beeping sound of the large white delivery truck, as well as when they saw buses, cars, or other trucks go by. As they observed, we would describe the vehicles by saying, "Look at the bus.... The wheels are going around and around, wheels make the bus go." We used that same phrase to describe each vehicle they became excited about. We finally decided to let the children experience, through play, the shapes and sizes of wheels. Wheels of many different shapes and sizes were added to the classroom. Books, magazines (of racing cars), calendars, and many pictures were added as well.

Phase Two

Developing the Project

Our investigations began with field site visits. The first was prompted by hearing the beeping sound of the truck outside of our playground. When we heard it, we quickly went out and asked the driver what was inside his truck and discovered the different goods he delivered. On a different trip to the parking garage's "Car Wash," we met Manni, the car washer. As he let the children investigate the inside of a car, they noticed the steering wheel. We compared the steering wheel to the spinning rims on the tire wheels of the car. We also compared the car wheels with the wheels of a motorcycle and a truck that were also parked in the garage. We stressed the different sizes of each wheel. The last trip was a planned focused field trip to Kohl Children's Museum. The focus was to have hands-on experiences with wheels at the museum. By taking the trip, the children experienced riding in the big yellow school bus. They got to see the big bus tires and the steering wheel.

We involved the parents in the experiences the children were having. They were asked to bring pictures and other artifacts that represented their personal vehicles. They were also required to fill in the pages of a blank album, which we made and sent home with the families. They were asked to include pictures of their vehicles – the steering wheel, the tires, and pictures of the ways in which they used their vehicles.

Phase Three

Concluding the Project

As a culminating event, we transformed the classroom into a highway "Rest Area." The parents were all invited to visit the rest area. They enjoyed picnic snacks and drinks at our "real" picnic table. They were able to push the children on their cars, trucks, and buses around the room, in the hallways, and then back to the rest area where books and pictures were then shared with the parents. Parents could take pictures of their children in front of a large bus mural which was hanging on the wall. There were train tracks to put together and trains to play with. This experience gave the children and parents a way of expanding their knowledge about wheels. They learned that wheels come in many different shapes and sizes. Because wheels help to make vehicles go, they are an important part of our everyday life.

Comments

The project inspired our team because of the way it motivated the children. We were amazed at how the children's interest in wheels expanded. They were able to guide us in focusing on what they wanted to experience due to their interest. The hands-on experiences of having access to expert visitors kept the children and teachers eager to participate.



▲ Examining a wheel on a bike



▲ Documenting the movement of wheels through painting



▼◀ Exploring a tire with sponges and brushes



◀ Representing a wheel using black paint and brushes

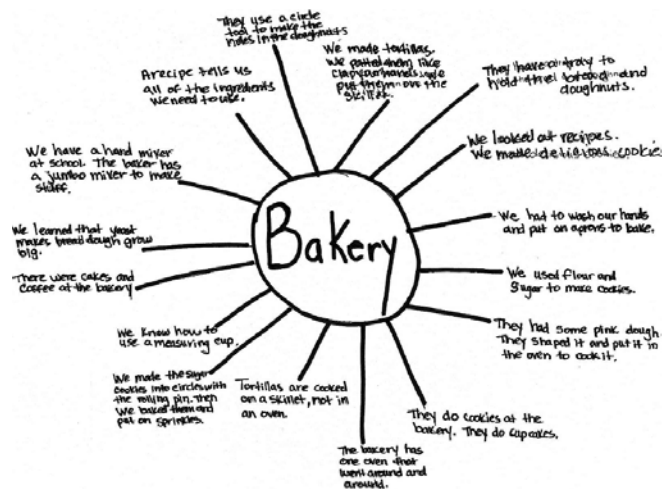
Bakery Project A project by children 4 – 5 years old McKinley Park Elementary School, Chicago, Illinois Length of Project: 4 months Teachers: Bethanie Smith and Annette Guerrero Participated in Program: 2004 – 2005	
Phase One	<i>Beginning the Project</i> We chose the bakery topic because we regularly observed several children engaging in pretend play using various materials to make birthday cakes and other bakery items. The focusing event was exploring picture books that had actual photographs of bakeries and bakery products. We did a large group KWL chart on bakeries. A small group of children came up with the KWL questions to investigate. We then transferred the questions to clipboards so that the children could use them to interview the experts. We wanted the children to gain new knowledge on how various bakery items are made and sold.
Phase Two	<i>Developing the Project</i> We continued to explore the photographs in books and came up with more questions to ask the bakery employees. Our project experts were six parents who came in and made tortillas with the children. The class, accompanied by plenty of parent volunteers, took a walk to a neighborhood bakery for a field site visit. The owner and his assistant were interviewed by the children and they guided us through the bakery. While on the field site visit, the questions were primarily focused on what the children had come up with prior to the visit. The parents assisted the children in asking the questions by pointing out various items in the bakery. Once we left the bakery, the children went back to the classroom and reviewed the questions and photographs. We brought back baked goods from the bakery and displayed them in plastic bags. During the following week we placed various colors of modeling clay, paint, and paper but did not give instructions on what to do with the materials. The children decided to use the materials to make replicas of the items they saw at the bakery. Another group of children decided that they were going to make a holding tray that they had learned about at the bakery. The children brought in various materials from home and asked me to get the “shiny stuff” (aluminum foil) to make the tray. Once the tray was completed, the children made more clay models for the tray. Throughout the process of making the clay models, we displayed a photo of the item next to the actual item in our project area. The children shared their sculptures with their families and any visitors who came to the classroom.
Phase Three	<i>Concluding the Project</i> One child suggested that we make real baked items to eat and put on our tray. We brought in a recipe book with pictures of children doing all of the mixing and measuring for the recipes and the children chose recipes from that book to make. As a culminating event, we experimented with the various recipes. We sold the baked goods for “tickets” at our snack booth during our classroom celebration.

Comments

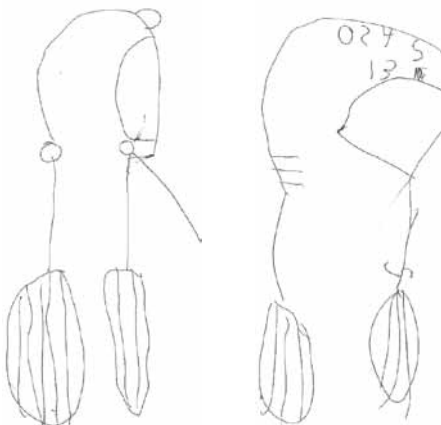
The bakery project was my most successful project to date. We observed children who were considered "quiet" students become leaders. Children were deeply focused on their various tasks during the project. The children had tasks that were meaningful and worthwhile for them; therefore, the interest level was high until the very end of the project. It was a great stepping stone in strengthening our school's partnership with local businesses.



▲ Ms. Smith's Pre-K class created webs about the bakery in phase one and at the end of the project to see how much they learned.



▲ End of Project



▲ Time One

▲ Time Two

Students created time one and time two observational drawing of different appliances used in the bakery.

► Real strawberry torte



► Making tortillas



► Students created clay sculptures of the different pastries they saw at the bakery. This is a child's representation of a strawberry torte.



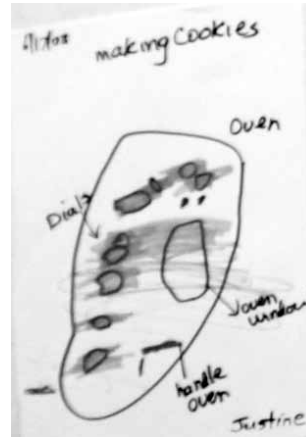
Bakery Project A project by children 3 – 5 years old Cherished Children, Calumet City, Illinois <i>Length of Project: 2½ months Teachers: Alanda Klein and Gaby Herrera</i> Participated in Program: 2008 – 2009	
Phase One	<i>Beginning the Project</i> The bakery project was chosen because we observed the children playing in the kitchen area and with the bakery “prop boxes.” They get excited when we have a birthday treat that is baked. We started by talking about bakeries and put together a vocabulary wall and collected pictures and books. They represented their knowledge by showing a lot of interest in the dramatic play area. We decided to look into the following questions: What’s a recipe for? How hot is the oven? What are the different ingredients? This project had total class participation including hands-on learning. Our expectations were that the children could share what they learned with their families and that they would explore baking at home and have fun baking.
Phase Two	<i>Developing the Project</i> As the project was developing, we expanded our vocabulary wall. The children seemed very interested in looking at the new things on the wall. When possible, we did a bakery project each week. Some of the things that we baked/made were: frosting, biscuits, and butter. We do not have a regular oven in the classroom so we were limited in what we could bake. After each bakery project, the children’s knowledge increased, and they couldn’t wait to do another one. We visited our director, Ms. Carol, in her home. She has extensive baking knowledge, and taught us how to bake banana bread and muffins. We also visited a local Target Store’s bakery department where we saw a cake-decorating expert and visited the bakery aisle in the store. During a field trip to the Lake County Fair, we looked at exhibits in the culinary section. At all three events, the children asked many questions. We wanted something that would have total involvement with the parents so we put together a “Literacy Baking Bag” with different bakery-related items in it. We had each child bring the bag home so they and their parents could work with it. We also asked the parents to share one of their special recipes with us for a future classroom cookbook.
Phase Three	<i>Concluding the Project</i> For a culminating event, we planned to do a small bake sale in the classroom. Since we only had a small toaster oven and microwave, we had to “make do.” We sent a letter to parents inviting them to come and enjoy our baked items. The children worked hard on their baking skills as we prepared for the bake sale. There was a small cost for our baked goods, so the children learned some math skills as well. The children were very excited to share their baking experience, and they felt a sense of pride, sharing something they had worked hard to produce. They learned a lot about baking as well as sanitary baking practices. Our summer project is ending, but we hope their interest will never end.

Comments

This was a good project because it was something the children could understand. It was fun to observe them learning where bakery treats come from and how they're prepared. I also enjoyed how each child's family joined in baking at home, giving us recipes and buying from our classroom bake sale. I was happy to see how eager each child was to bake and how much they could do on their own. Their children have always enjoyed playing with the bakery and kitchen toys, but now I notice them incorporating new ideas learned during this project. One difficulty during the project was that during the summer there are a lot of field trips, and sometimes it was hard to find time to bake.



▲ Children explored using measuring cups to make baked goods.



▲ Observational drawing of an oven.

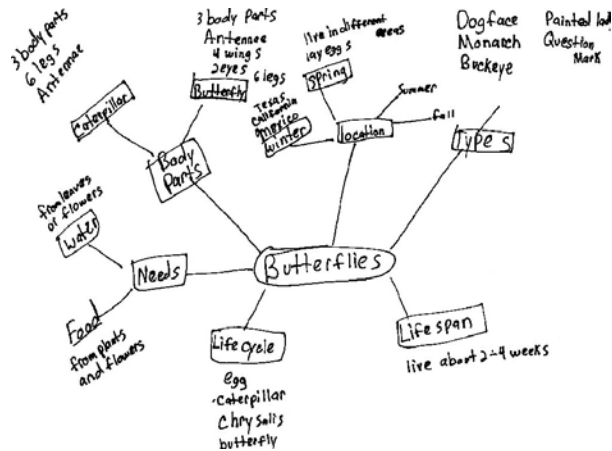


▲ Children went on a site visit to a bakery and frosted, decorated, and tasted donuts.

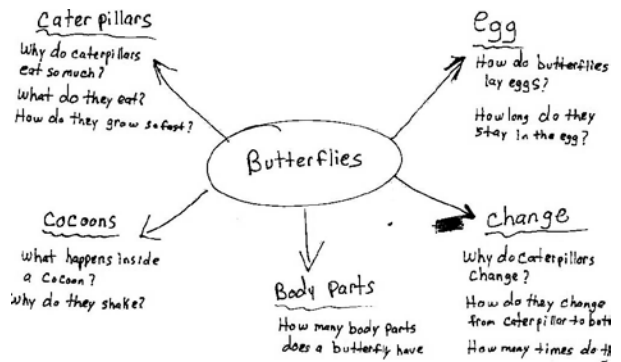
Beautiful Butterfly A project by children 3 – 4 years old De la Cruz School, Chicago, Illinois Length of Project: 3 weeks Teachers: Maretzy Barrera and Mrs. Fernandez Participated in Program: 2005 – 2006	
Phase One	<i>Beginning the Project</i> In October we borrowed an insect theme box – modeling butterfly metamorphosis - from another teacher. The children had many questions about how the caterpillars changed to butterflies so we decided to explore this topic further. We asked the students what they knew about butterflies. A lot of the children responded that butterflies are different colors and that they fly. The children had a lot of questions. Do butterflies have ears? How many body parts do they have? Why do they grow so fast? How do they make their cocoons? Why do they eat so much? What do they eat? Why do they come in different colors? These questions were written on a web and shared with all the children.
Phase Two	<i>Developing the Project</i> We asked the children to go home and ask their parents if they would help them find information on butterflies. Some children returned to school with some pictures of butterflies and others with names of different butterflies. They were very excited to talk about what they had found. The first week of the project, we visited the Peggy Notebaert Nature Museum. We spoke with Lisa at the museum and she answered many of the questions we had. During our investigation the children really wanted to focus on the metamorphosis process. They were amazed when the caterpillars began to make their chrysalis and wanted to know what happens inside the chrysalis. The museum has a program that allowed us to borrow a box of information on butterflies. It contained models and posters that describe the change that caterpillars undergo. There was a poster that showed Monarch butterflies flying to Mexico during the winter. Since most of my students' families are from Mexico, they were very interested in this information. The children and the teacher decided to buy a butterfly kit for the classroom. The children observed the caterpillar stage, the chrysalis and finally the butterflies. They did observational drawings at each stage. The children investigated the foods that the caterpillars ate and foods that the butterflies ate.
Phase Three	<i>Concluding the Project</i> The last day of our project was our butterfly release celebration. Each group of children released ten butterflies. They were very excited to see the butterflies fly away. The parents were able to see the photographs from our butterfly release celebration and all of the project documentation was displayed in the hallway. At the end of the project the students were able to explain metamorphosis and what happens at each stage of the butterfly life cycle.

Comments

We originally thought that the project would be difficult in terms of keeping the students interested without telling them what to do and how. We were so wrong – the children amazed me! They asked such good questions and learned so much that we really finished this project with a different view of my students. A lot of times as teachers we assume that projects are too hard for students and that they may not be interested. We learned through trying project work not to underestimate the capabilities of my students. This was a great experience, for students and staff. We cannot wait to do it again.



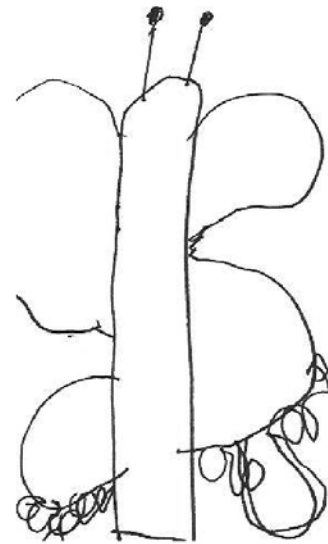
▲ Ms. Barrera's Pre-K class web on butterflies



▲ Questions the children wanted to investigate



▲ Time One observational drawing



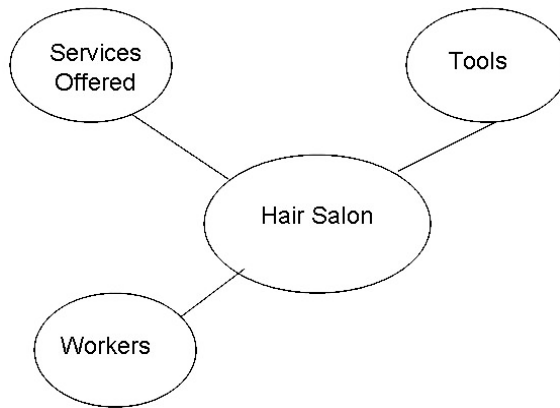
▲ Time Two observational drawing

◀ Observing a butterfly

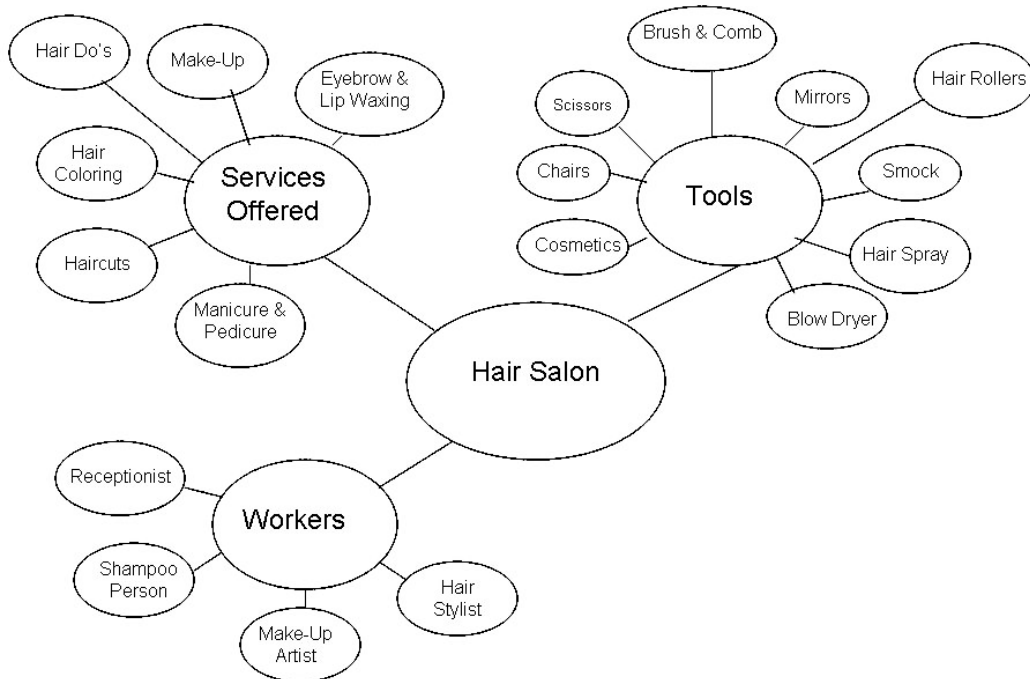
Beauty Salon Project A project by children 3 – 5 years old New Field School, Chicago, Illinois Length of Project: 3 weeks Teacher: Lisbeth Herrera Participated in Program: 2005 – 2006	
Phase One	<i>Beginning the Project</i> The students showed interest in each other's different hairdos. They talked about their own experiences with trips to the hair salon. We used a web to investigate students' knowledge about hair salons. Some students had been to a hair salon, while others shared that their parents cut or groomed their hair at home. Many children were able to name hair salon tools and other hair salon products but they wanted to know more about their uses. Other questions they wanted to investigate were: What happens to the hair that is cut off? Does it hurt when a person gets a haircut? How does hair change color?
Phase Two	<i>Developing the Project</i> In order to investigate the questions, children took a site visit to 3 Logic Salon. This gave the students an opportunity to observe firsthand what a beauty salon looks like. We began by meeting stylists Carlos and Julio and looking at Julio's work station. The items in his drawer were taken out for the children to see. The students were amazed at the many different types of combs that existed for different hair styles. The students were able to see and feel the hair razor. They wanted to know if they would feel pain when this tool was used on their hair. In addition, the students sat in the revolving salon chair and were also taken on a tour of the salon. The students represented their learning through drawings and through play in the hair salon play area in the classroom designed for them. In this play area, they pretend to make appointments using the phone, writing down the times in their appointment logs, having clients wait in the waiting area, providing services, and then using the cash register to complete transactions.
Phase Three	<i>Concluding the Project</i> To culminate the project, our students put into practice their creative skills in doing each other's hair. The project was shared with the parents during parent conferences. They were able to see our classroom's mini hair salon – "Mis Pelitos Hair Salon – which translates to "my little hairs." Many of the boys in the classroom, prior to the field trip, would tend to keep away from the vanity in the dramatic play area. However, their opinions changed after the field observation. They realized that men, too, get a haircut, and don't necessarily always have to go to the barber shop. The students learned the following: names for different types of hair (curly, straight, short, long, etc.), importance of safety in the salon, variations of combs, variations of hair dryers, and the importance of self-grooming (boosts self-esteem).

Comments

I was surprised at the level of interest the students showed during the field trip. I was not sure that a neighborhood business would leave such an impression on the children. However, our school neighborhood is quite vivid. It just goes to show that neighborhoods have very interesting places which we don't always take the time to make a learning experience for our children.



Time One Web



Time Two Web

The Car Project A project by a child 4 years old Completed as a home project in Des Plaines, Illinois Length of Project: 16 weeks Teacher: Rhonda Yost Participated in Program: 2005 – 2006	
Phase One	<i>Beginning the Project</i> This project was started because my daughter asked me if she could learn about something. I asked her what she wanted to learn about and she told me the car. We sat down and talked about our car. I asked her what she knew about the car and we went outside to take a look at the car. I was unsure about her continued interest in the car so we went to check out books from the library about cars. After many stories and continued conversations and questions, we proceeded with the project on cars. My hope for the project was to increase her current knowledge of the car and to increase her investigative and questioning skills.
Phase Two	<i>Developing the Project</i> We began the investigation by taking a trip to the driveway. My daughter was given full access to our family van to investigate anything she wished. This was quite an experience for her. She checked out all the buttons and climbed through the entire car. She had many questions that were answered through this investigation, but she also developed new ones through the investigation time. We then turned to books, the local repair shop, and my father to help us with further investigations. The more my daughter learned, the more questions she had. She was asking questions that I did not even know the answers to. The highlight of her investigations was helping Grandpa change the tire on his truck. Throughout the project, she also became concerned about our safety in the car. She questioned why adults did not have to have car seats and then why seat belts were not safe enough for her and her brother. Throughout the project, I took some photos and kept a journal of our conversations and investigations. Zaphillia also took some of her own photos and did observational drawings.
Phase Three	<i>Concluding the Project</i> As a culminating event, Zaphillia taught her grandparents about our van. The grandparents were taken on a tour of how the van worked, where the safe places were to sit for adults and children, and how to get under the hood. This was very important to her because during her investigations, she emptied the window washer fluid and we had to fill it up so she could wash more windows. This project went far beyond my expectations of increasing her knowledge of our van. Her investigative and questioning skills were also expanded greatly.

Comments

The Car Project was very rewarding and very successful. Zaphillia's interest level in cars kept increasing during the project. Her grandparents were very impressed with the amount of knowledge she had to tell them about the van. She is still asking my father if they can change the tire again. Her grandparents enjoyed being involved in her learning process as well.



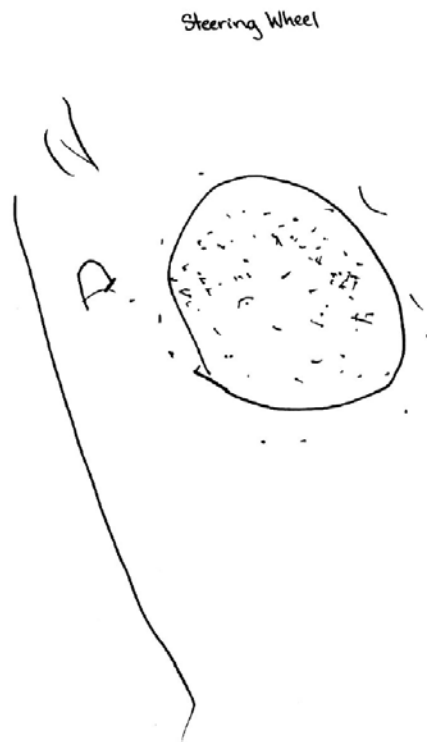
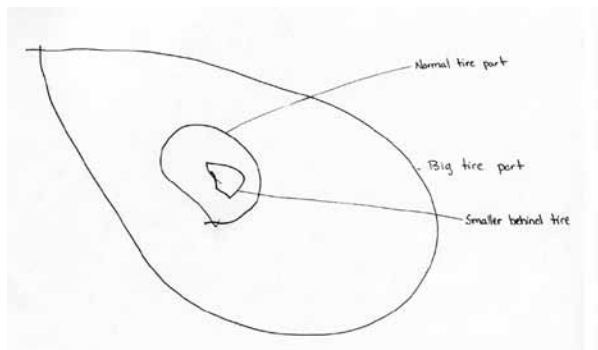
▲ Investigating a steering wheel



▲ Changing the wiper fluid



▲▼ Observational drawing of a car tire



▲ Observational drawing of a steering wheel

Doctor Project A project by children 4 – 5 years old Belmont-Cragin Early Childhood Center, Chicago, Illinois Length of Project: 4 months Teachers: J. Kalousek, A. Fielding, and L. Carrillo Participated in Program: 2007 – 2008	
Phase One	<i>Beginning the Project</i> The children's interest in doctors began with the use of the doctor kit in the classroom. Play was extended by adding actual doctor equipment, x-rays, and trade books. Through discussions with the students, we created webs to find out what they knew about doctors and what they wanted to know. The web was used to generate questions for the medical staff during the field trip to the community medical center. The expectations for the project were to increase the students' knowledge of healthy lifestyle choices, increase vocabulary, and allow students to express feelings about doctors and doctor visits.
Phase Two	<i>Developing the Project</i> A doctor's office was created in the book area where students' role-playing ranged from doing checkups to performing surgery. X-rays of a human skeleton were identified and labeled. Nutrition activities focused on making healthy food choices. During the field trip to the medical center, students visited the examination rooms and lab. They asked the nurse and doctor questions and created observational drawings. After the trip, a list was made with information that the students gained from their visit to the medical center.
Phase Three	<i>Concluding the Project</i> The final product of the project is a book created to show the different phases of the study. Each student will have the opportunity to take the book home to share with his or her family members. The documentation board will be displayed in our classroom during our open house. Students learned that doctor examinations, making healthy choices in nutrition, and exercise will help their bodies grow and continue to stay healthy.

Comments

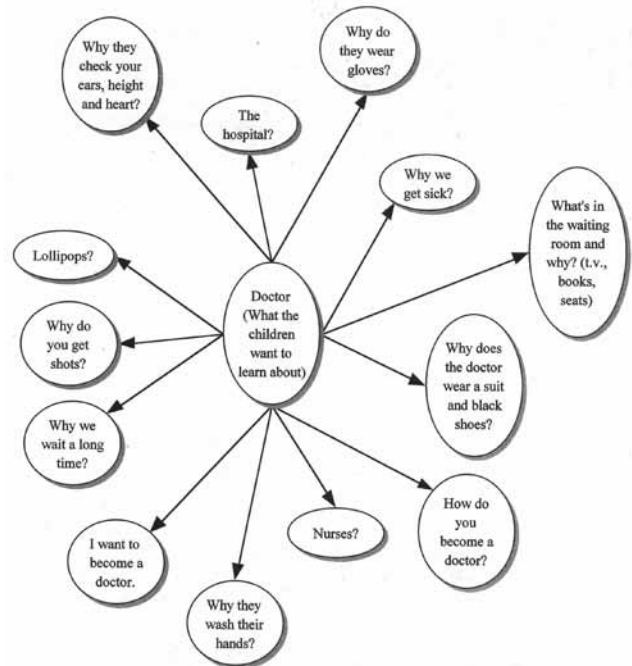
This project provided opportunities for children to express their knowledge of doctors and to gain a deeper understanding of why doctors are an important part of our lives. The materials and books helped the children to extend their role-playing. Abbas was one child who benefited from this topic. His father is studying to become a doctor. He knew some important facts, such as the need to study and being a gentle doctor. He wanted to label the x-rays and found a book to use as a resource. If I used the project approach again, I would like to do a project on water; I feel that this is a topic that more children would be interested in. There could be more activities and parent involvement.

▼ Children's questions for the doctor

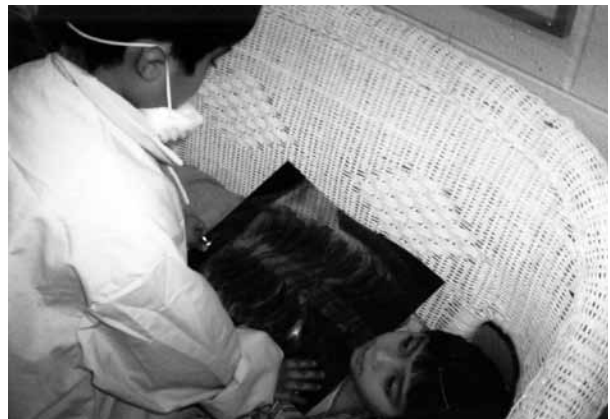
Why do we get sick?
 How do you become a doctor?
 Why do you wash your hands?
 Why do shots hurt?
 Why do you check our ears and hearts?
 Why do we wait a long time?
 Why does the doctor wear a suit and black shoes?
 What does the nurse do?



▼ Children's first web



▲▼ Children did role-playing as a doctor and patient in the classroom, using stethoscopes and x rays. ▼



Drum Project A project by children 3 – 5 years old Child Care Center of Evanston, Evanston, Illinois Length of Project: 2 months Teachers: Ann Rappelt and Nicole Ramirez Participated in Program: 2007 – 2008	
Phase One	<i>Beginning the Project</i> The teachers noticed the children drumming on a variety of things with different materials. They used markers, sticks and pencils to drum on tins, buckets and even tables. We asked the children about drums, making music with drums and if they had any questions. We made a list and posted it. The children drew pictures of their interpretation of a drum. We made drums from recyclables. We decorated them with a variety of art materials. After they were made they tested them out for sound and “drumability.” The expectation was that the children’s interest in drums/ drumming would deepen.
Phase Two	<i>Developing the Project</i> A djembe, hand drums and an ocean drum were purchased. The children played these drums and compared them to the instruments they had made. Our first field site visit to Kohl Children’s Museum was about music and the children learned the term “vibration.” They made instruments from recyclables. A child asked if we could learn about other instruments and as a group we decided we could. We watched a video about the orchestra. We invited someone who played the viola and another person who played keyboards to visit our class. The children drew instruments and played them. A drummer visited who showed us more about sounds and the tools drummers use. Our last visit to the museum was about music and emotions. Parents as well as staff and board members were given a wish list of drum materials. Many sent in items. Parents were advised of activities via the bi-weekly newsletter and lesson plans. Parents acted as chaperones during our field trips. The children’s work was represented through drawings, photos and videos.
Phase Three	<i>Concluding the Project</i> When we asked the children, “What would be a good culminating activity?” it was suggested that we should, “do an orchestra.” This led to a decision to perform a concert. We made a poster and made copies to serve as invitations. We e-mailed our invitation to board members, field experts, and our Kohl Children’s Museum mentors. The children made guest lists, tickets, and a list of songs they wanted to perform. We went back to the questions and answered them and also reviewed our original list of musical instrument knowledge and updated it.

Comments

The project was enjoyable and rewarding. Each child participated at some level and a few got very deep into certain aspects. Their musical and curious dispositions were allowed to grow on their own levels. I discovered that the children had a hard time with questions; they were more used to giving answers. Observational drawing is also something I would like to practice more. The project lasted a long time because the children's interest was sustained. I was most pleased that it came up naturally to find out about other instruments and that books were able to pique their curiosity.

Are drums big and little?

You have drumsticks and what other things can we use?

Can we use sticks?

Can we use our hands?

Is drumming hard to do?

Can we drum with our mouth?

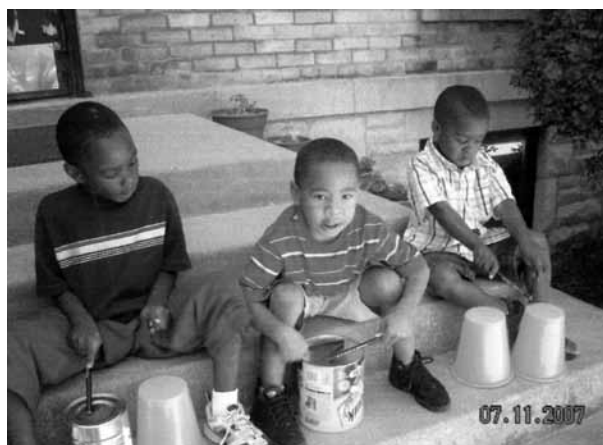
Can we drum on the drums?

Can we get drums and make them?

- ▲ Children came up with a list of questions to investigate and through a variety of activities and investigations children were able to answer their questions.



- ▲ Children explored making sounds with aluminum pans and spray bottles filled with water.



- ▲ Children explored using cans and buckets as drums and pencils as drumsticks.



- ▲ Children invited the school, parents and family members to a drumming concert as a culminating activity for the project.

Egg Project A project by children 2 – 8 years old Ms. “D’s” Jump Start Family Childcare, Chicago, Illinois Length of Project: 2 months Teachers: DeCarla Burton and Lolita Pace Participated in Program: 2005 – 2006	
Phase One	<i>Beginning the Project</i> The children represented their prior knowledge and experiences through group discussion about chickens. We divided the children into two groups – each group had children ranging in age from two to 7 and 8. We paired the children according to verbal skills. The older children helped by setting the tone of the discussion but most of the children participated. I taped the conversations and played it back so the children could hear themselves. From their comments, a list of questions were formulated for the younger children as the older children asked what they wanted to know. Some of these included: How do chicks break out of the egg? What do chicks eat? Do chicks bleed? Where do chicks live? Who are chicks’ enemies?
Phase Two	<i>Developing the Project</i> Our field site visits included a trip to Kohl Children’s Museum to observe the incubation of baby chicks. The children observed first hand what the chicks looked like after they hatched and viewed diagrams of the hatching process. We created a web based on what the children wanted to know about the egg and the baby chicks. Next, the children were involved in observational drawings to allow opportunity to examine an egg by attempting to draw what they observed. Additional resources were brought into the classroom such as charts of the incubation process, books about chicks, roosters, hens, story books, and other resource materials. Children were encouraged to explore these books and other resources based on their interest and at their own pace. Additional questions did arise from their exploration and we continued to explore the world of chicks, which eventually led to exploring eggs. We then purchased an incubator and eggs to hatch in our center. Each day one of the older children marked four eggs with a date and placed them in the incubator. The children took turns caring for the eggs. We created a felt story board that we used to show what we learned.
Phase Three	<i>Concluding the Project</i> The children were excited as we decorated the backyard displaying the materials we used to explore “The Egg Project.” We invited the parents to stop by so that their children (the experts) could share with them what they learned from the egg project. They were prepared to explain how the incubator worked, how long the incubation process lasted, and the difference between a grocery egg and a fertile egg. Two webs were provided for the parents to view. One of the webs displayed what the children wanted to learn before the investigation and the second web outlined what the children had discovered through their exploration.

Comments

Unfortunately, we had an unsuccessful hatch in our center – not one of the eggs produced a baby chick. The children formulated their own theories about why the chickens did not hatch. David, age three, did not think that the incubator was hot enough.

The children wanted to see what was inside the eggs. We cracked the eggs that did not hatch and the children saw that the chicks had not grown and the inside of the eggs were like the inside of a store bought egg.

JPZ mneKF
The Egg Project



Observational Drawing I
4/24/06

▲ Time One Drawing



▲ Time Two Drawing



▲ Children and parents view chicks at Kohl Children's Museum.



▲ Children explore the difference between a fertile and a non-fertile egg.

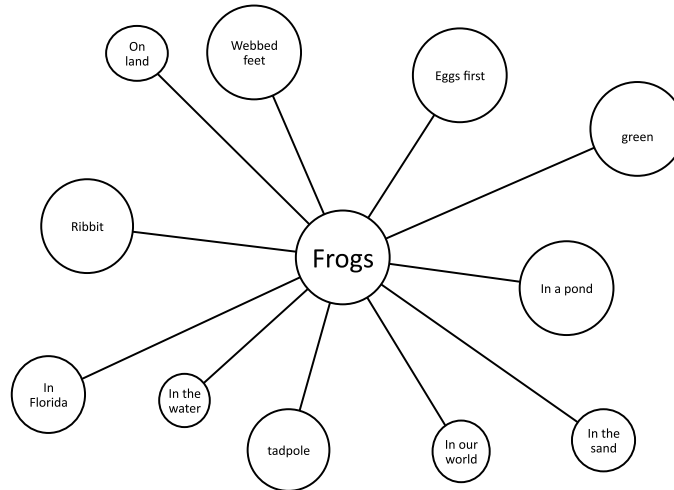


► After observing chicks over the course of the project children created chick sculptures out of clay.

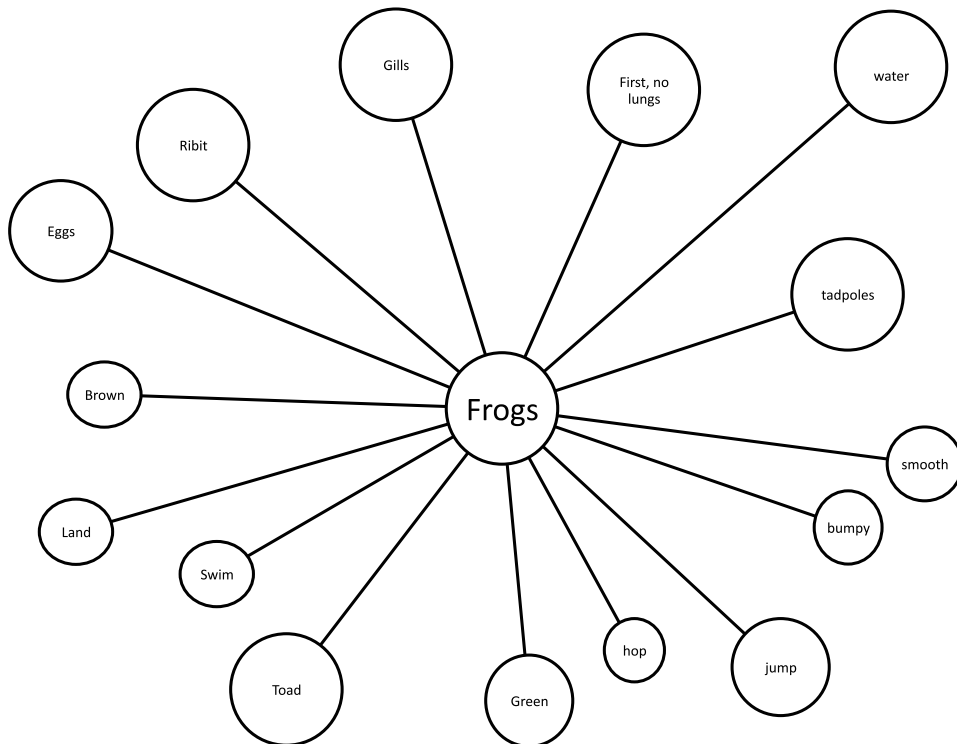
Growing a Water Frog A project by children 3 – 5 years old McPherson School, Chicago, Illinois Length of Project: 2 months Teacher: Jacqueline Gilfillian Participated in Program: 2007 – 2008	
Phase One	<i>Beginning the Project</i> Our first project topic was water. After our H2O focused field trip to Kohl Children’s Museum, class discussion led to a decision to observe something that lives in water. At first, most of the students wanted to study fish. Someone said, “Frogs,” and another student replied, “frogs don’t live in water.” This is how our project began. The teacher asked, “Do you know that there are 2,000 different types of frogs? One of those 2,000 types is a water frog. Would you like to grow a water frog?” We voted as a class and everyone voted yes. We made a list of the things we already knew about frogs. We then read our first informational story about the life cycle of a frog and added things we learned to a chart.
Phase Two	<i>Developing the Project</i> Students investigated the metamorphosis/life cycle of a water frog. The teacher ordered eggs at different stages to ensure that the students would see the final state by April. Due to the cold weather, companies did not want to ship the eggs. One company finally agreed to ship all of the stages. When we opened the package we found tiny tadpoles. Daily observations were made using magnifying glasses. Students made observational drawings of the frogs and took pictures. We charted the weekly changes we observed at different stages of development. We read books about frogs and discussed differences between types. We played leapfrog by measuring how far we jumped and then charting the distances. We recorded a timeline of the tadpoles’ growth. We wrote stories and sang songs about tadpoles and frogs. The class would observe feeding behaviors during different stages and what to feed at each stage. The students took turns feeding twice a day and changing the water twice a week. They also caught frogs with a small net and gently touched the frogs to feel their moist skin. We visited Shedd Aquarium where we observed various animals that live in water as well as several frogs in different habitats.
Phase Three	<i>Concluding the Project</i> The class made their own play dough and molded tadpoles with it. The next day we used the remaining play dough and had a contest to see which group could make the best frogs. The students created great looking frogs by working together. In the end, they were all winners and received treats. We made a large display in the hall outside of our classroom showing our work. On Parent Teacher Conference Day we shared our display with parents and the school community. Students were eager to share the project. They discussed the pictures we took and explained the stages. We have had hundreds of people from our school community stop by to see our frog project. A teacher from another Pre-K classroom asked to join in with the project. We set up another room for our students to observe on their own; only our classroom cared for the tadpoles/frogs. The extra set-up room gave the other classes in the building (Pre-K – 2nd grade) a chance to visit the frogs and watch their changes and growth. Finally, we planned a visit to the Notebeart Nature Museum to see their frog exhibit and also complete a workshop on babies and growth.

Comments

The project kept students interested and involved. The first day after spring break, students wanted to check on the tadpoles/frogs. One student became sick after break and was out of school for another week. Her mom told me, "All Fatima keeps talking about is the tadpoles and frogs." This project was a great experience for my students, the school, parents, and the teachers. I am thinking of repeating it next year. The other Pre-K teacher expressed the same idea because her students stayed engaged and interested along with us.



▲ Web One



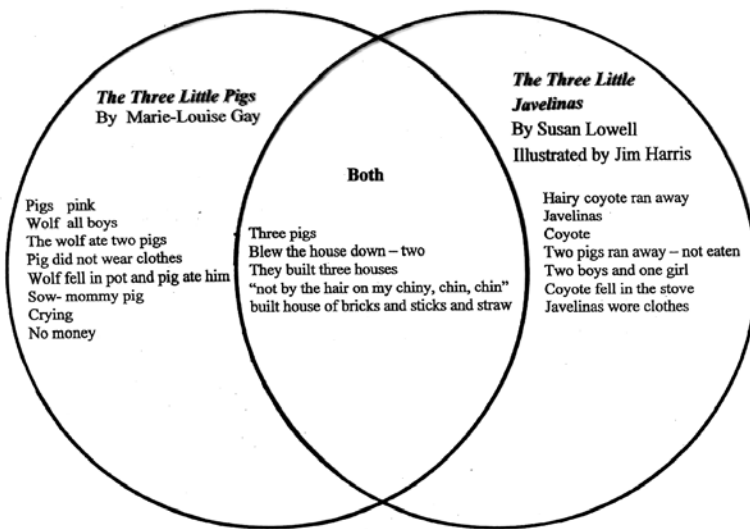
▲ Web Two

The House Project A project by children 3 – 5 years old John Hay Academy, Chicago, Illinois <i>Length of project: 2 months Teachers: Cynthia Dressler and Carmen Perez</i> Participated in program: 2004 – 2005	
Phase One	<i>Beginning the Project</i> We had been reading the story of <i>The Three Little Pigs</i>. We read two versions of the story and the students wanted to find out if there were more books with the same story. The students were able to relate to the fact that the pigs lived in houses or apartment buildings and that some lived with brothers and mothers. One little boy compared the wolf to the wind blowing at night during a recent storm. The students also related the parts of their homes to the pigs': windows, doors, locks, furniture, and fireplaces.
Phase Two	<i>Developing the Project</i> We compared two stories – one traditional and one based in Mexico. We then webbed the information that the students knew about houses. We began a discussion about how we could build a house in our classroom. We happened to have many boxes available to us to explore for building. Some of the students had little interest in building but would revisit the books daily. The students measured out a sufficient space in the classroom to construct the house. The children had many ideas about how to construct the house but the final materials of choice were boxes. They decided that masking tape would be better than nails for assembling the walls. The students used paper towel tubes to assemble as logs to construct the roof. The house became shaky when the students added the roof, so one of the boys suggested that the box flaps be taped to the floor so the house would not move. The students spent more time constructing the house than actually playing in it, so soon it was time for them to "blow the house down."
Phase Three	<i>Concluding the Project</i> One child suggested that we all stand in front of the house and blow as hard as possible to see if the house would fall down. We blew as hard as we could but were unsuccessful in our attempts. The children discussed what else we could try and one of the boys suggested that we remove the tape that held the bottom flaps of the house to the floor. The children gathered in front of the house again and blew as hard as they could. It worked! We blew the house down. As the students reviewed the pictures, we began to note what they were saying. We used the notes to create a book to send home for the students to share with their families.

Comments

This has been one of our favorite projects. The amount of cooperative problem solving that was observed was great. The students benefited from the process of the product and not necessarily the finished product. This particular group of students did not communicate well with each other at the beginning of the project, but because they had a common goal their communication skills improved and were enhanced overall.

- Children compared the story of *The Three Little Pigs* and the *Three Little Javelinas* using a Venn Diagram.



- ▲▼ Children used cardboard boxes, tubes, and tape to construct their house.

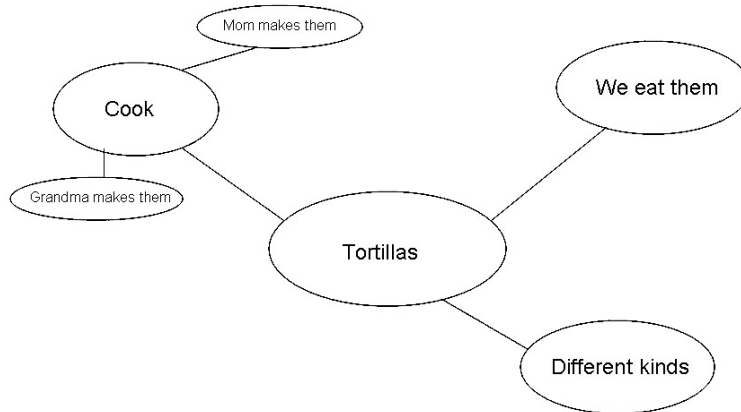


- ▲ Children worked together to paint the house.

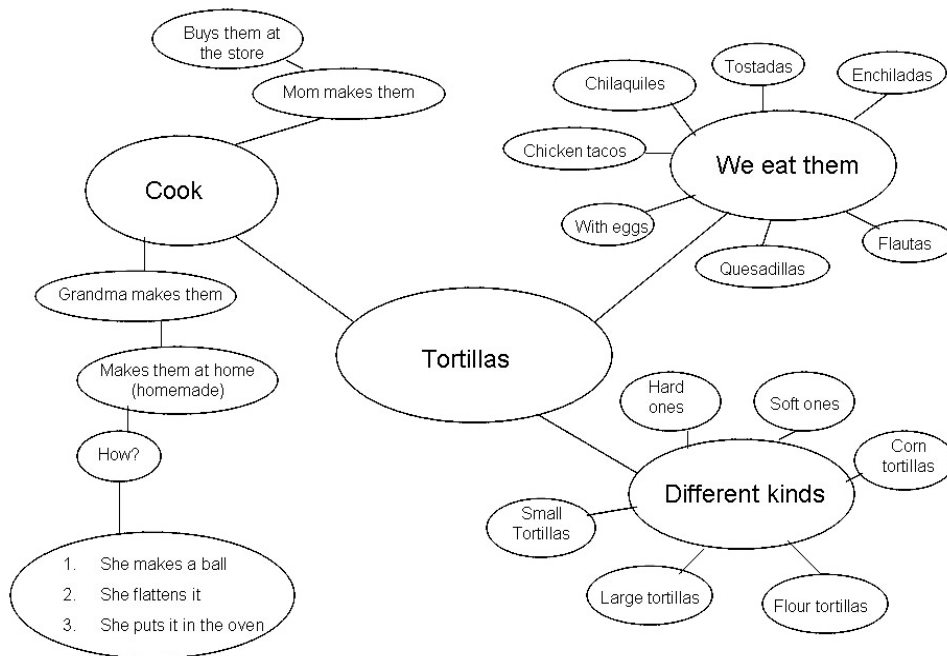
How to Make Tortillas A project by children 3 – 5 years old Goethe Elementary School, Chicago, Illinois Length of Project: 2 months Teacher: Wanda Ocasio Participated in Program: 2004 – 2005	
Phase One	<i>Beginning the Project</i> We have a tortilla song the students enjoy singing and we talked about how the children eat tortillas at home. I asked the children if anyone in their families made tortillas at home. They were able to demonstrate how they flattened the tortillas. The children were interested in telling me how their mothers or grandmothers made tortillas and the different foods they ate them with. I realized that the students did not have the language skills to explain what the steps were so I decided that making tortillas would be a good project topic. They had some prior knowledge so I began to ask them questions about tortillas and recorded their responses on paper as our first graph. By making the tortillas at school, we could find out what ingredients we needed and the steps to take to make them.
Phase Two	<i>Developing the Project</i> We discussed the different ways the children eat tortillas and how we were going to eat them in the classroom. Our visiting expert demonstrated how to make the tortillas using a tortilleria. She then allowed the children to make a tortilla using the tortilleria. There were many conversations taking place while the children were involved with making the tortillas. They talked amongst themselves and compared the different sizes of the tortillas. We also discussed the texture of the tortilla dough. The children drew pictures representing the experiences making tortillas in the classroom and at home. We read and looked at different books about tortillas. We learned a new song about tortillas to which the children enjoyed dancing. The children dramatized making tortillas using the tortilleria with play dough. The children represented their learning by making observational drawings, making tortillas, learning new songs, and by pretending to make tortillas in the dramatic play area.
Phase Three	<i>Concluding the Project</i> We decided that we would culminate the project by making tortillas. A parent donated a tortilleria and other parents helped the students make the tortillas. We cooked the tortillas and served them either as a quesadilla or a taco.

Comments

I learned that when the children are interested in a topic, they will participate more in the classroom. This topic was great for my classroom because it brought us closer as a class. The children were excited to share what they already knew. By allowing them to do what their mothers and grandmothers do, it gave them a sense of pride about their culture. When we made the tortillas, I realized that my quiet student really benefited by this project. He enjoyed sharing how he and his mother make tortillas at home.



Time One Web



Time Two Web

Investigating Instruments A project by children 4 – 5 years old Onahan School, Chicago, Illinois <i>Length of Project: 8 weeks Teachers: Cyndi Lopardo and Sandra Santillan</i> Participated in Program: 2004 – 2005	
Phase One	<i>Beginning the Project</i> The students started a new music program and enjoyed learning new songs. We began to make a list of what the students knew about music and what questions they had about music. Most of the questions were focused on instruments. Some of the students had instruments at home or knew someone who played an instrument. Teachers brought in a clarinet and guitar for students to investigate. We webbed what the students knew about instruments and then added the questions that students wanted to investigate.
Phase Two	<i>Developing the Project</i> Students made observational drawings of the instruments. We began to make lists of what the students learned in their investigations. Both children and their families were the experts and brought instruments from home. They talked about their instrument, demonstrated it, answered questions, and taught their friends how to use it. We used Venn diagrams to compare similar (guitar and violin) and dissimilar (guitar and clarinet) instruments. Throughout their investigations of the instruments, students made observational drawings. The group studied vibration and made instruments at a field site visit to Kohl Children's Museum. They continued to make instruments using materials available in the classroom.
Phase Three	<i>Concluding the Project</i> As a culminating activity for this project, the children, after a classroom discussion, decided that they wanted to make a book to share with parents. The students compiled all of the pictures and graphs into a book that was sent home to be shared with each family.

Comments

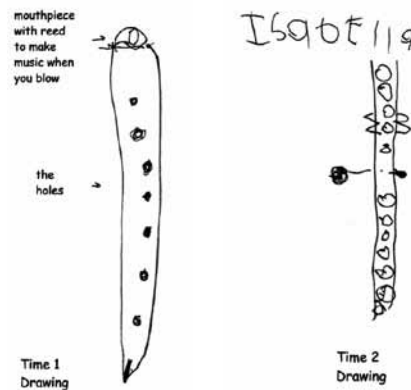
We were most amazed at our students' enthusiasm toward observational drawing. Students who had been drawing the same types of pictures repeatedly began to take risks and draw new things. Students began to carry around clipboards and draw/write more frequently in the classroom. Even the student who was stressed and frustrated whenever he was asked to draw something began to make observational drawings on his own.



▲▼ Students documented the instruments through observational drawings.



▼ Mrs. Lopardo's Pre-K class investigated different types of instruments and created time one and time two observational drawings.



▲◀ Children explored real instruments.

Investigating Lucky Hamster

**A project by children 4 – 5 years old
Onahan School, Chicago, Illinois**

Length of Project: 10 weeks **Teachers:** Cyndi Lopardo and Sandra Santillan

Participated in Program: 2005 – 2006

Phase One

Beginning the Project

We have a pet hamster (Lucky) in our classroom and the students were very curious about him. Everyday, students were at the hamster's cage observing his behavior and asking questions about what he was doing and what he ate. We created a class web of what the students already knew about hamsters. One of the students had a hamster at home and shared what she knew. We began to gather questions for investigation from the students' observations and the webs. Our webs were posted near Lucky's cage.

Phase Two

Developing the Project

We began to take Lucky out of his cage so that we could take turns holding him. The students used cardboard tubes and boxes to create play areas for Lucky. They made observational drawings of Lucky and of the play areas. They began to explore the informational books we found at the local pet store. We offered Lucky a variety of different fruits and vegetables and kept a list of his favorites. We made a field site visit to the local pet store where we learned more about pets and hamsters. The students used stuffed hamsters in dramatic play and crawled through tunnels like Lucky. We revisited the web and the students added their new knowledge.

Phase Three

Concluding the Project

The students decided to make a movie to document what they had learned about Lucky. Each had an opportunity to share. This DVD was played at our family celebration night held at Kohl Children's Museum. The DVD was also played continuously during Self-Select time in our classroom for the next two weeks. Parents and students visited the DVD often.

Comments

This was our first student-initiated project. It sprang totally from the student's interests. Much of the exploration was done on their own. When their parents volunteered in the classroom, students brought them to the project area to tell them what they knew about Lucky and to explore the books, drawings, and DVD in the project area. About two weeks after our project was completed, a group of students used Kidnex to replicate Lucky's cage.



- ▲ Students observed Lucky in his cage and gathered data through observational drawing.



- ▲ Observational Drawing of Lucky the hamster sleeping in his cage.



- ▲ Students went to a local pet store to observe and document pets and their homes.

Life at the Pond

A project by children 3 – 4 years old

Paul K. Kennedy Child Care Center, North Chicago, Illinois

Length of Project: 4 weeks **Teachers:** Elizabeth McClinton, Dionne Stone, and Yadira Serrano-Melendez

Participated in Program: 2008 – 2009

Phase One

Beginning the Project

When thinking of a project topic, we first examined our childcare center and the surrounding environment. We have access to a beautiful duck pond that we use for nature walks and adventures. During circle time, we simply asked the children, "What is a pond?" Some of the children's responses included simple words such as water and ducks. We asked the children "What swims in a pond?" The children replied, "Fish and sharks!" They were asked to draw a pond. After this, we knew that our children would learn about animals and pond life through our project.

Phase Two

Developing the Project

After talking with the children about their early drawings and displaying them, we knew it was time for a visit to the duck pond. The habitat is rich with wildlife and foliage indigenous to this area and we wanted the children to simply observe the pond and the things they saw. Ms. Yadira collected some pond water for us to bring back into our classroom for close observation. The children loved the animal life and watched as three men caught a fish at the pond.

Once returning from the duck pond, the children constructed a mural of a pond on our classroom wall. We included things the children talked about such as ducks, frogs, and fish. We read stories about freshwater ponds and pond life. We also posted our pictures of the children's experience around the room for parents to use as discussion pieces.

We introduced the use of clipboards for recording and binoculars for the children to use when investigating the pond. We went back to the pond to look specifically for animals that might be at the pond as well as what in nature makes a pond. We were able to collect plant life and rocks to bring back to our class to be incorporated into our final project.

Phase Three

Concluding the Project

For our final project we wanted our children to use what they had learned about ponds to build a pond in our classroom. The children knew that they wanted to include the animals they saw at the pond, sand, water, flowers, and water. The children learned about animals at the pond and what elements in nature make a pond. They also learned how to use clipboards to record data and binoculars to see things that were far away. They also learned about items that sink or float.

The parents were excited to hear about the pond from their children. When picking them up at the end of the day, parents were invited to come into the classroom to see and talk about the pond mural the children created.

Comments

The duck pond presented many opportunities for investigations to be explored, generated, and recorded. Our goal for the children was to allow them to experience and learn about nature through a hands-on approach. It was amazing to watch the children's reactions during our visits to the duck pond. They also communicated to their families about the experience, and we received a lot of positive feedback from parents. This has been a great summer full of fun and exciting experiences, and we learned as much as the children did through our participation in this project.



- ◀ Children visited a local pond several times at their site visit to investigate their questions.

- ▶ Children used paint and large paper to make a representation of the pond.



- ◀ Children observed and documented the different wildlife at the pond.

Melon Madness A project by children 2½ – 5½ years old Evanston Day Nursery, Evanston, Illinois <i>Length of Project: 1 month Teachers: Stephanie Lane-Baker and Debbie Butcher</i> Participated in Program: 2007 – 2008	
Phase One	<i>Beginning the Project</i> We chose this topic because we noticed the children’s fascination with the melon we served at snack time. They touched, poked and commented on how juicy the melon was. Some children removed seeds and collected them on napkins, while others busily spat out seeds and slurped down the melon. Many commented that they had watermelon at home, and also remarked that they bought it at the store. These comments and others were evidence of their prior knowledge and experience with our potential topic. The children were adamant in their request for another full melon to open in the classroom. Several children giggled and asked if we could drop a melon to see if it would open up or “explode.” We recorded the children’s questions for our future investigations.
Phase Two	<i>Developing the Project</i> Our children began this project by measuring, weighing and trying to estimate whether our daily selections—which varied, depending on availability—would have seeds and what color the flesh might be. The children created observational drawings inside and outside of the classroom, using clipboards to hold their work. They also took photographs of melon seeds. We began to develop new vocabulary from books as well as from the different types of melon we brought to the classroom. The children’s newly developed interest in seeds prompted us to cut other fruits and vegetables. We conducted informal field site investigations by observing a neighbor as he tended his large garden. As he prepared the soil and planted early summer vegetables, he demonstrated the maintenance it took to maintain a garden. As the children observed, they also asked questions about seeds. Further field site investigations included numerous visits to Great Opportunities Adult Day Care’s greenhouse where the children planted seeds with elder adults. Parent volunteers joined some of these visits, and their help was invaluable. The children developed a greater interest in seeds. We had a seed spitting activity and wondered if any of the wayward seeds would take root and grow in the middle of the playground.
Phase Three	<i>Concluding the Project</i> Our culminating event was a final visit with our elder friends from Great Opportunities Adult Day Care. During this visit, while enjoying a magic show together, one of the children remarked, “Just like our seeds: now you see them, now you can’t.” At this time, we were also preparing for the end of the school year, and the children’s transition to kindergarten. We discussed melons and seeds less as we focused more on returning to school as an older child who would be welcoming younger children into the school. Our school summer break and subsequent preparation for on-going kindergarten goodbyes may have sped up our conclusion to the melon project; it is also possible that it was the project’s natural time to expire.

Comments

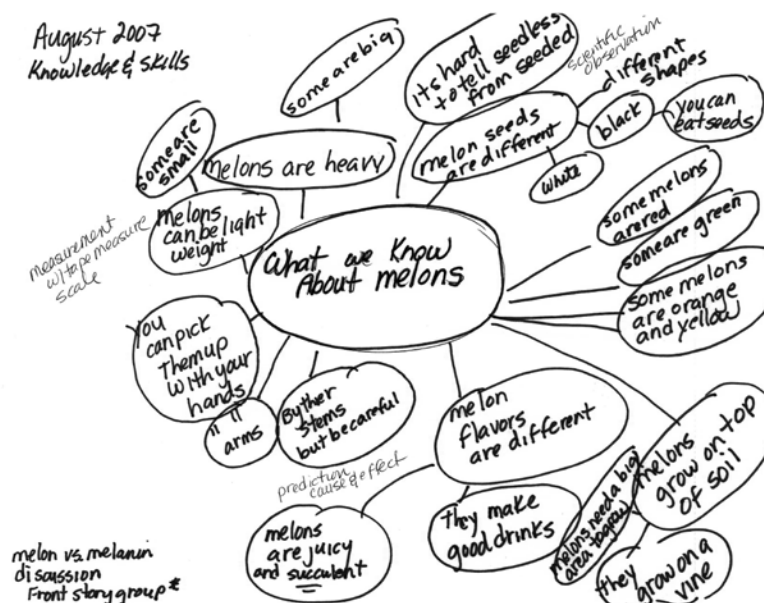
This project reaffirmed our belief in the collaborative approach to learning. The children made significant gains in content knowledge, especially in vocabulary development, scientific reasoning and increased inquiry. The 3's and 4's were particularly focused on rote counting and tallying, however, all children took great interest in practicing their developing math skills. The "seed" of another project topic was planted as we observed children picking up sticks and gathering them to dig holes in the dirt. We wondered what questions they might have related to these sticks and/or wood in a future project.



▲ Children used colored dough to create model representations of melons.



▲ Observational drawing of a slice of watermelon.



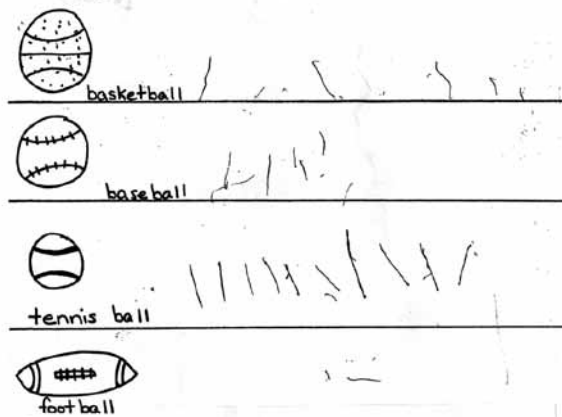
◀ Final Melon Web

Our Investigation of Balls A project by children 3 – 4 years old John Hay Academy, Chicago, Illinois Length of Project: 4 weeks Teacher: Cynthia Dressler Participated in Program: 2005 – 2006	
Phase One	<i>Beginning the Project</i> This topic was chosen after a visit to the IDEA Factory at the Museum of Science and Industry. Many of the students focused on activities that involved balls and their uses. To begin this topic, we webbed information about what the class knew about balls and how they used them. This topic was one that was relevant to all students because of the familiarity of the topic; all children had some experience with balls even if it was only with the materials in the gym at our school. We continued to develop questions about our topic and decided that we could ask our school's gym teacher to find out more information. The students were interested in the different models and materials related to the balls.
Phase Two	<i>Developing the Project</i> We began the investigation by listing what we knew about the topic and found that, as a class, our strength was in the uses of balls. We were able to visit the school gym as part of our investigation. Some children asked specific questions about the types of balls used in the gym. Mothers worked with the teacher's assistant to tally the different types of balls available in the gym and complete some observational drawings. After asking the initial questions about the uses of the balls the students developed a curiosity about what the balls were made of and the differences between the types of balls available. I brought in fiction and non-fiction books connected to the balls. One series of books, <i>Let's Find Out</i>, was a great resource because it allowed children to research information through the photographs in the books. Mr. Meyer, the gym teacher, allowed us to cut up some of the old balls from the gym in order to learn how they were made and what they were made of. Students represented their learning through drawings, journals, vocabulary lists and dictation. After learning how to handle the balls based on different sports, the students also adapted the way they played with them.
Phase Three	<i>Concluding the Project</i> To end the project, we cut open two balls – one hollow and one solid – so the children could satisfy some of their curiosity. We displayed the students' work and photographs of the project on the bulletin board for Literacy Night so that parents could see what their children had been studying. The students learned how to ask focused questions and record information through writing and tallying. They also discovered purpose in writing and using it as a tool. They became more comfortable sharing their ideas with one another. Some of the students who had previously been less inclined to talk began talking more because they had a reason and need to contribute.

Comments

This topic was a good choice because all of the students had some background knowledge to share and it gave the opportunity for some of my quieter students to feel confident in what they had to share.

It was good to have a topic that all children felt confident discussing right from the beginning. The students have benefited through learning the importance of taking notes and recording information. They have become experts at using books as a tool to gain information as well as reading them for pleasure.



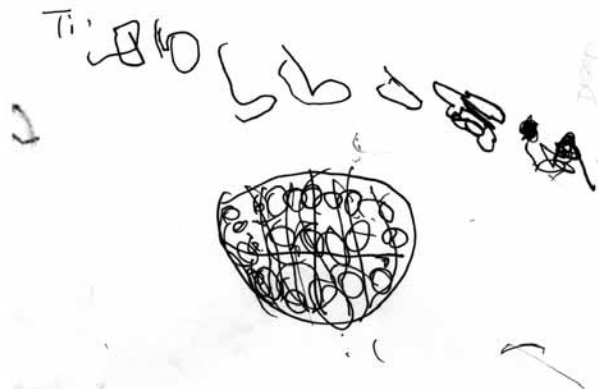
- ▲ Children used tally marks to count how many balls of each type they saw.



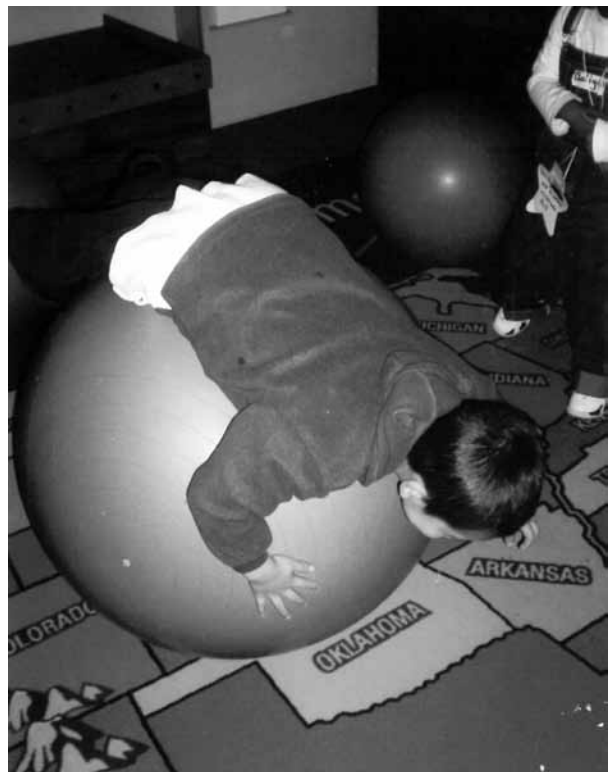
- ▲ Children documented the different types of balls through observational drawing.



- ▲ Children investigated different types of materials from which balls are made.



- ▲ Observational drawing of a basketball



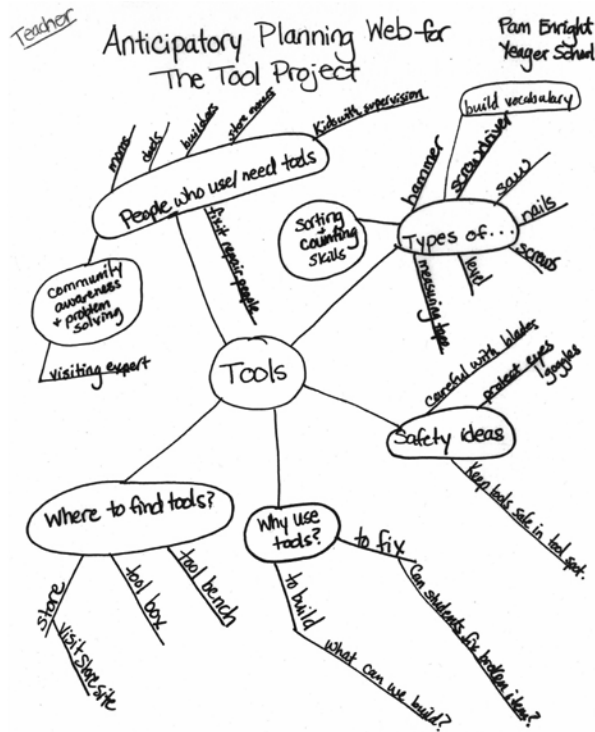
- ▲ Children explored various sizes of balls.

Tools Project A project by children 3 – 5 years old Yeager School, North Chicago, Illinois Length of Project: 5 months Teacher: Pamela Enright Participated in Program: 2008 – 2009	
Phase One	<i>Beginning the Project</i> Our topic was chosen because students seemed to have an interest in tools and building. I added new toy tools to the classroom and books about tools and building to see if these sparked even more interest. We made an introductory web together to further discover the children's knowledge and interest in the topic. We posted the web in the classroom. It was easier for some students to act out the motion of the tools than to pose a question or describe any tool, so we accepted the information as they could give it and recorded it on our web. My expectations were to give the project approach a try and to see how the students took to it. I didn't really know what would happen!
Phase Two	<i>Developing the Project</i> The children investigated books and photographs of real tools and building sites. They observed, touched, and drew real tools. They used tools (with supervision) to fix a classroom bookshelf. We were lucky to have a parent who was a carpenter/construction worker who came in as our expert visitor; the children were as excited as if Bob the Builder himself had come! The investigation questions increased the exposure children had to different tools and their uses. We updated the parents in our newsletter and presented pictures of our work. From the project's beginning, the children said they wanted to build a house. FedEx/Kinko's donated boxes that we stacked at the back of the room. Students discussed house ideas for a while, and then I suggested that they use the boxes to create a house.
Phase Three	<i>Concluding the Project</i> The students continued to explore with the boxes and tools. They worked on the house structure, and we set up an open house for other classes, our principal, and the students' families. For the open house, we left the house standing in our rug area. At the tables, we displayed the following photographs chosen by the students: our expert visitor, the day the students fixed the bookshelf, our investigation with the play tools and the new building blocks, and the concluding project—our house. The students were very proud to share our story during the open house!

Comments

I was worried at first about the wide range of abilities in my class. Since we were an early childhood special education classroom and I had a morning and an afternoon class, I wasn't sure if we could do everything that was expected. I also broke my leg in December a week after our introductory Project Based Learning meeting. My leg and the project were the two best things that have happened to me—in terms of my teaching—in a long time. My leg forced me to let the students be more autonomous because I was limited physically so they rose to the occasion! The project taught me how to listen to students better and to hear their interest.

▼ Anticipatory planning web



- ▲ Children explored and investigated how to use real tools to construct a house with cardboard boxes.



The Train Project A project by a child 3 years old Completed as a home project in Des Plaines, Illinois Length of Project: 12 weeks Teacher: Rhonda Yost Participated in Program: 2004 – 2005	
Phase One	<i>Beginning the Project</i> The train project was started with my daughter because we lived close to the CTA red line and the Metra train. She was fascinated with the trains as they would pass by. We rode the CTA frequently and she was always excited to find out we were taking the train somewhere. She started asking questions about the train. We talked about what she already knew, which was very little. My expectations for the project were to increase her knowledge of the El train and how to ride it safely.
Phase Two	<i>Developing the Project</i> We began the investigation by watching the El train. My daughter counted how many trains went by and realized that there was more than one train. She was also interested in how many windows and doors were on the train. We observed the train on many occasions. She then began asking where the trains went. It was time to take a ride on the El train for investigation. We prepared questions to ask the CTA employees at the station by our house. She wanted to know how much it cost to ride and where she could go. The station worker told her that for her mommy, the cost was \$1.50 and that she could ride for free with her mommy. He gave her a map of the train system so that she could see where the trains could take her. At this point she also discovered that the red line was not the only train. She then started asking about other trains. We watched the Metra trains and saw a couple of freight trains. We also made trips to the Museum of Science and Industry and to Kohl Children's Museum to explore trains there. During the project, I took photos and kept a journal of our activities and the conversations we had.
Phase Three	<i>Concluding the Project</i> The entire project had included only my daughter and me. She decided that she wanted to take her dad for a ride on the El train. We had tickets to a baseball game and we always took the train to the baseball games. She planned the trip to the baseball game. When we were investigating the map, she found the baseball stadium and pointed to the stop where we would have to get off. She memorized the station names from our house to the baseball game and told her dad which stops we would have to pass to get to the game. She was able to show her dad how much she had learned about the train. This project expanded her ability to investigate, read maps, count, ask questions, and increased her knowledge of the El train and how it compares to other trains.

Comments

The train project was my first home project. It was much different than the projects I had done in the classroom. My daughter's interest remained high during the entire project and still continued after the project was officially finished. This project showed me the importance of doing projects with your children in the home.



▲ Drawing train tracks



▲ Finding her train in the book

► Drawing the train on the train tracks



▲ Time 4 drawing of a train

Vegetable Gardening Project

A project by children 3½ years old
Cherished Children Early Learning Center, Mundelein, Illinois
Length of Project: 2½ months Teachers: Karen Klinger and Kristy Wagner
Participated in Program: 2008 – 2009

Phase One

Beginning the Project

We chose vegetable gardening for a couple of reasons. First, we have an on-site garden in our playground that children were watching grow. Second, Karen and our director Carol Sternal, are avid gardeners. Carol brought in packets of flower and vegetable seeds. Our children sorted through them and were drawn to the vegetables. They were able to identify a lot of the vegetables by the pictures on the seed packets. The questions that came up were: "What are roots?" "What do they do?" "What will happen to the seed?" "What do the vegetables grow on?" These questions were generated when we started to weed our existing garden. Our expectations were to create an appreciation of growing things.

Phase Two

Developing the Project

We exposed the children to many activities throughout the project. We created grass buddies: socks filled with soil and grass seeds with faces drawn on them. Our first observational drawing was of a potato plant that Ms. Kristy had grown in another classroom during the school year. We read a number of books related to vegetables and how they grow. We explored with math vegetable counters in several different ways (sorting, counting, etc.). We put soil and beans in the water table and watched the beans sprout without water! We gave the children garden gloves, tools, and a wheelbarrow for them to explore. In the dramatic play area, we set out a garden shop. We also created garden hats out of newspapers and let the children decorate them. For our big portion of the project, Mr. Karen bought two wading pools and let the children explore the pools and poke holes on the bottom. Once the pools were ready, we paraded them outside with our homemade garden hats and filled them with 200 pounds of potting soil! The children then took zucchini plants, pumpkin, watermelon, cantaloupe, and green bean seeds and planted them into the pools. They were so excited; they did not mind their dirty hands and faces. Our parents brought in family recipes and talked about their own gardens.

Phase Three

Concluding the Project

Our class sent out invitations to all of our parents to visit our classroom project mural and the garden itself. Our parents were given the opportunity to visit at their own convenience, when they dropped off in the morning or picked up in the evening. Our parents were quite interested and the feedback was positive. Our children learned about the elements necessary for the growth of plants (soil, sun, water, etc.). They learned the phases of vegetable production (flowers bloom, fall off, and then vegetables grow in its place). They learned to compare the likeness and differences of the plants.

Comments

I learned how powerful it is to incorporate topics chosen by children that are relevant to their lives. What surprises me most is the intense level of enthusiasm project work generates, and how strong the children's focus became. Our topic was excellent because we had easy access to our playground garden, and there was a surprise every day; a baby tomato developing, a leaf growing overnight, etc. Sharing my knowledge about gardening and drawing was especially meaningful. It was easy to execute once I understood the process. We had one child who overcame some of his shyness because of his enjoyment of the project. I would allow more time for planning and field trips.



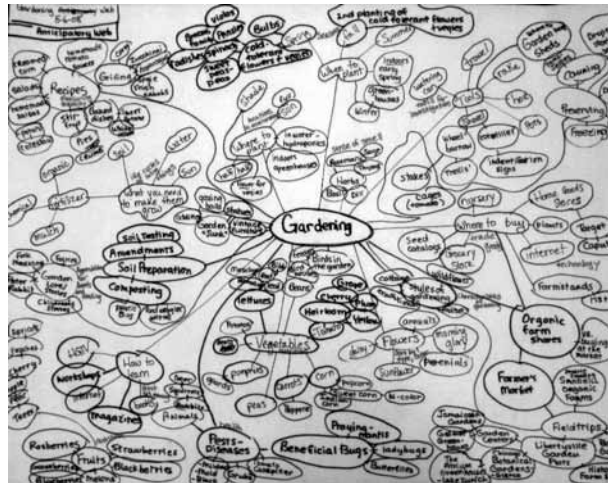
▲ Children used tallies to count different items in the garden.



▲ Children observed and documented a variety of plants.



▲ Children assisted with planting and maintaining gardens at the school.

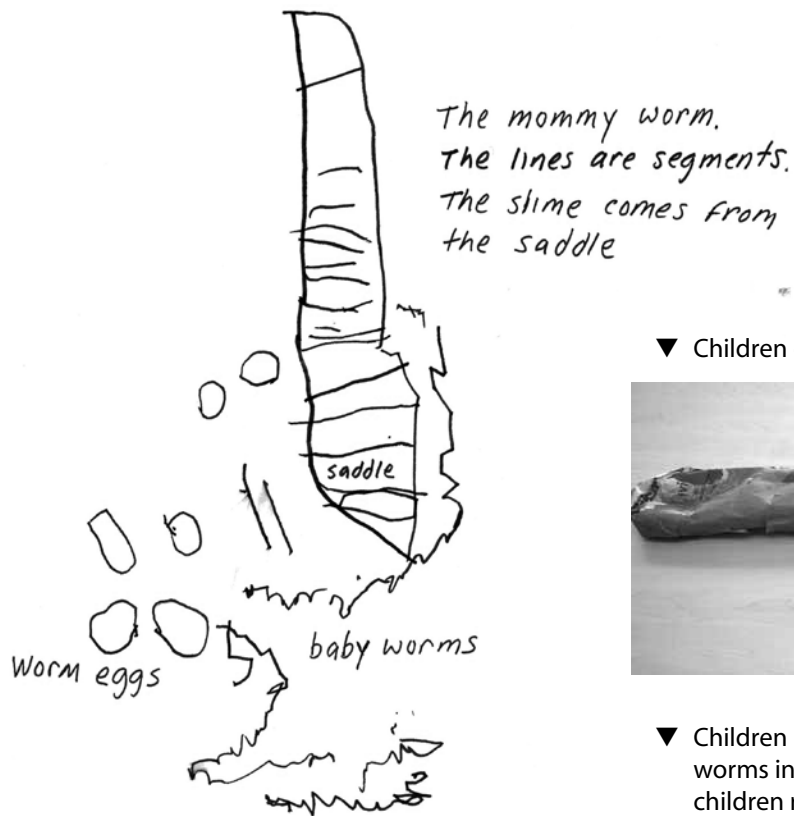


▲ Final Web

Worms A project by children 3 – 5 years old Child Care Center of Evanston, Evanston, Illinois Length of Project: 2½ months Teacher: Deana Scurry Participated in Program: 2007 – 2008	
Phase One	<i>Beginning the Project</i> I noticed that the children in my classroom liked to dig for worms; however, they did not know much about them. They played with worms and unknowingly harmed them. When I presented worms as a topic to my students, they were interested. Watching my classroom dig for worms became the focusing event. Students represented their beginning knowledge and experiences with the topic before the investigation through group discussions and drawings. I asked each child what they wanted to know about worms and wrote their questions on poster board. The majority of my class wanted to know why worms like to dig underground and how worms have babies. My expectation for the project was for my classroom to gain knowledge and respect of worms.
Phase Two	<i>Developing the Project</i> Nicole Ramirez, a teacher at the Child Care Center, was our worm expert. She brought in four different types of worms: night crawlers, leaf worms, dilly worms, and red worms. She answered all of our questions about worms. We were able to set the four different types of worms out in trays so that the children could experiment with them on their hands, arms, and necks. We used magnifying glasses and rulers and rotated among the table so that everyone had a turn with each type of worm. My class tried digging for worms in many different places. First we tried the wood chips on the Child Care Center playground. We found bugs, but no worms. We put some worms in a large tray that had dry paper towels on one side and wet paper towels on the other side. The children guessed that the worms would move to the side with the wet paper towels, and they did. We put our worms in a worm composter given to us by a family in our classroom. The children helped prepare the composter by shredding newspaper and spraying it with water. Then the worms were transferred to a multi-level composter called, "the worm factory," that automatically separates the food scraps from finished compost. We asked our families to help us feed our worms by sending home a list of things that worms like to eat. My classroom represented their learning through drawings, story dictation, and clay sculptures. My classroom decided they wanted to make a pretend "worm factory."
Phase Three	<i>Concluding the Project</i> The culminating event was putting the real and pretend "worm factory" on the playground. My classroom was able to show others the worms, answer questions, and take pride in the project. This was how we were able to share the project with the entire school. The project was shared with parents through conversations with teachers, their children, newsletters, and activities displayed in the classroom. My students learned many things from the project. They learned how to investigate and observe. They learned how to make predictions and conclusions based on prior knowledge. They learned facts about worms they didn't know beforehand.

Comments

The Project Approach taught me that investigations that I initially saw as unsuccessful to my classroom were actually learning experiences. For example, I was becoming frustrated when my class wasn't able to dig up any worms. Later, we learned from books that worms burrow deep into the ground during the summer to keep away from the heat. This was a good topic because worms are easily accessible and harmless, giving children opportunities for hands-on experiences. This project showed the children that there is more to worms than meets the eye. One thing I would do differently: record more discussions.



◀ Children observed worms and documented what they saw and dictations were added to children's drawings.

▼ Children created worm sculptures



▼ Children investigated how to compost with worms in the classroom. During the project children represented their learning by creating a worm factory out of cardboard boxes, clay, leaves, coffee grounds, lint, and soil.



▲ Children explored worms and were able to ask worm expert questions.



Worms A project by children 3 – 5 years old Von Humboldt Child Parent Center, Chicago, Illinois Length of Project: 3 months Teachers: Daria Zavacki and Mrs. Cervantes-Garza Participated in Program: 2005 – 2006	
Phase One	<i>Beginning the Project</i> The topic of bugs was discussed when a fly entered the classroom at the beginning of fall. The students began naming different types of bugs and discussed what they know about bugs. The worm was not discussed until after the experience of the focused field trip workshop at Kohl Children’s Museum on “Animal Adaptations.” The teachers listed the names of all of the bugs that the children discussed. The students chose four bugs they were interested in learning about: ant, fly, ladybug, and worm. The students voted, we tallied the score, and the winner was the worm. We asked the children what they knew about worms and used a web to have the students focus on each subtopic. What body parts are on the worm? What shape is the worm? What food does the worm eat? We then asked the children what they wanted to learn about worms. What do they eat? Do they have teeth? How big are they? Can we play with them?
Phase Two	<i>Developing the Project</i> With our questions in mind, we began our investigation. We borrowed books from the library, researched information on the internet, and we put up a poster of the anatomy of a worm. As we were working on our investigation, one of the students asked, “Why do we have worms?” For this question, we decided to ask an expert. We arranged for a classroom visit from Miss Venus Vargas, nature educator with the Chicago Park District. She taught the class about worm composting. The students took notes and drew pictures using their clipboards. The students participated in building and preparing worm compost and the parents helped with supplying newspapers and left over fruit from home. A father drilled holes in a large plastic container. We received red worms from the compost community representative of the neighborhood. It was a group effort. Twice a week, the students took turns feeding the worms, making sure the bedding was moist, and keeping it under the water table because “it was a dark place.” They put all of their writings and drawings into a folder they named “Worm Book.”
Phase Three	<i>Concluding the Project</i> We made three display boards showing our findings and shared these with our parents, teachers, students, and visitors in the center. We also placed the displays in our All-Purpose Room on Parent Teacher Conference Day to share the information with all of the parents. We explained to the parents and visitors that the students enjoyed feeding the worms, using the clipboard, and taking pictures with the camera. They also developed new vocabulary words and learned that the worm is an important insect.

Comments

In doing the project approach, the students learned more about the subject because they were actively engaged in the process and in answering their own questions. The students' vocabulary increased and their writing skills developed. The students observed and asked questions about the worm compost. They enjoyed feeding the worms in the compost and seeing the growth of the worms. We learned to extend learning beyond themes.

This is what we know.
This is what we learned.



▲ Learning web



▲ Children in Ms. Zavacki's Pre-K at Von Humboldt Parent Child Center observed worms in the classroom.



3-1



This worm has 14 rings.

▲ Observational drawing



▲ Ms. Zavacki and her students created a worm compost bin in their classroom and made observations daily.

Birds of a Feather Project A project by children 3 – 5 years old H. B. Stowe Academy, Chicago, Illinois Length of Project: 3 months Teacher: Barbara Healy Participated in Program: 2007 – 2008	
Phase One	<i>Beginning the Project</i> The topic was chosen because the children expressed an interest in birds during an observational walk. They asked questions about the different types of birds they had observed and wondered where birds came from and what they ate. After our walk, we created a KWL chart about birds. We kept this posted in the classroom. Some of the students had pet birds at home and shared their experiences and knowledge of their pets.
Phase Two	<i>Developing the Project</i> The children began by making observational drawings of the birds they observed on our walk. I read informational and narrative texts about birds. After reading several books, the children noted the many varieties of birds. Our project became redirected as they began to question why birds ate different things and why some birds look different from others. We used tools such as pliers, tongs, toothpicks, scissors and spoons, to replicate a bird's beak and to try to eat like a bird; it was very hard not to use fingers! I then collaborated with the art teacher to make bird masks and pictures created from a bird's perspective. We went to Kohl Children's Museum and made birds' nests and listened to, Tanglebird, a story about a bird making a nest. The children used stuffed birds, which produced that bird's song, to recreate the scenes we saw on our walk. The informational texts were a valuable resource for pictures and facts regarding various types of birds, many of whom the children had not personally observed. The children represented their learning through observational drawings, sculptures, dramatic play, graphic organizers, and through free exploration at the water table, which was filled with bird seed. Parents offered to bring their pet birds to school as the weather warmed.
Phase Three	<i>Concluding the Project</i> The culminating event was the visit of family pets to the classroom. The children were asked to design their own bird. The bird designs were displayed in the classroom and hall for parents to observe at report card pick up day. The children learned the characteristics of birds, the types of foods that birds eat and some observed that the two are related. Their observational skills increased as well as their inquiry skills. Their dispositions changed in that they are now more willing to ask questions and more observant of the world around them.
Comments	I learned that my students, many of whom are English language learners, were quite receptive to initiating their own learning. This was a good topic because it was familiar to the children and easy to observe. It was especially meaningful to me because all of the children participated in the investigations. Each child was able to learn without being frustrated and thus experience success. Some of my students have special needs, so this is particularly important for them. If I did this project again, I would initiate it in the spring when birds are more easily observed outdoors, and it would be easier for parents to bring family pets to school.

The Hat Project A project by children 3 – 5 years old McPherson School, Chicago, Illinois Length of Project: 3 months Teachers: Rosaura Torres and Mrs. Guzman Participated in Program: 2007 – 2008	
Phase One	<i>Beginning the Project</i> We decided to study hats because of a hat with gold sequins that a student found in our indoor gym. One day, one of the boys was wearing this hat as he rode a tricycle in the gym. He told a teacher that he found the hat in a basket where the balls are kept. Since that day, one student would wear the hat whenever we visited the gym. As students shared everything they knew about hats, we discovered that they knew quite a bit. They wanted to know why people used different hats and why they needed hats for certain jobs. We decided that we would make hats out of newspaper and display them in our hallway. We would involve parents by inviting them to help us build our collection of hats in the classroom and also inviting them to our culminating activity.
Phase Two	<i>Developing the Project</i> The students started their investigations by observing hats that we asked parents to bring in. Parents were very responsive to our request; we had: ceremonial hats, sun hats, cowboy hats, caps, straw hats, and an umbrella hat, to name just a few. Having hats at the students' disposal was a very important part of the project. We began to read books about hats. A favorite was Ezra Jack Keats' <i>Jennie's Hat</i>. We set up a table in our classroom dedicated to hats. We placed bins on the table and put hats inside the large bins and books in the smaller bins. We placed clipboards under the table for the students' observational drawings. Children had easy access to this table during free play time. They used the hats during dramatic play time and in small group activities, acting like police officers and firefighters. The girls enjoyed playing with the sun hats and used them during pretend parties. When we began doing the observational drawings, some of the students had a very difficult time. One of our young 3-year-olds began to cry when he heard the directions. We sat with him and encouraged him to try to draw just a simple object, like a ball. In time, he started to feel more confident.
Phase Three	<i>Concluding the Project</i> We asked parents to donate newspaper and masking tape for the culminating activity. We also invited them to come to the classroom to help their child make a hat. I explained how to make the hat's crown and demonstrated how to shape the brim in various ways. Students told their parents what kind of hat they wanted, and the parents molded them accordingly. We had different color tempera paint at each table. Other materials were available to students to decorate with: stickers, feathers, foam cut-outs, pom-poms, ribbons and fake flowers. The students seemed to enjoy decorating their hats which turned out to be unique art pieces! We were excited to display them. The display was ready for parent/ teacher conferences, outside of our classroom in the hallway. We took each child's picture wearing their hat and displayed it with their hat. We hung the hats on a clothesline against the wall. On conference day, we heard many positive comments: one parent said, "You should sell these hats! They are very well made."
Comments	The most difficult part of the project was getting children accustomed to doing observational drawings. Many lacked confidence in their ability to draw. Once students realized I was more interested in the process than the end product, they seemed to gain confidence. The culminating activity was the most enjoyable part of the project. It was a joy to work with parents and students in the learning process. If I did this project again, I would try to find someone who actually knows how to make hats, for instance, someone who knows how to weave a hat out of straw.

Animal Habitats A project by children 5 – 6 years old Stockton School, Chicago, Illinois Length of Project: 4 months Teacher: Karla McReynolds Participated in Program: 2005 – 2006	
Phase One	<i>Beginning the Project</i> The topic of our project was chosen after two months of studying animals in the science curriculum pre-assigned by the school. We observed many animals during this unit and the children were really interested in what the animals ate and where they lived. I decided to show videos related to animals that live in water, animals that live under the soil, and animals that live on the land. We read books on different animals' habitats and read about what they eat. We decided to obtain a small pet for our classroom. We took a class vote on which pets to choose and which pet would be first to join our class. We decided to start with crickets and began to make our web. We talked about the things that we knew about crickets and then listed all of the things that crickets needed to live, including building materials for the habitat. We decided to purchase another pet for the classroom. We went to the pet store and Wally, the store manager, showed us a lot of pets. The students voted on the next classroom pet; the decision to choose a mouse was almost unanimous. The students asked Wally questions about mice, and he told them that sometimes mice bite. The children now had more information so I asked if they wanted to vote again. All of the students voted for birds so we bought two parakeets. We returned to the classroom and made our first bird web that same day.
Phase Two	<i>Developing the Project</i> During the project the students had to work as a team in order to build the cricket habitat, bird cage, the branches and a swing. The students learned mathematical skills and how to work better as a team. They came up with the idea of using empty plastic bottles taped together to make a cricket habitat. This would not work for the bird cage so they had to investigate other materials. They decided that they needed a bird cage and that they could use string and cubes to build the branches and the swing. The children designed their branches and swing on paper and used measurement to decide on correct sizing. Our field site visits included the Science Lab at our school. Our expert, Judy Wilson, the science teacher, showed us her many animals and told us about their habitats and what they needed to survive. We visited Kohl Children's Museum and attended the Bird Habitat/Animal Adaptation workshop. Finally, we took a walking trip around the block to locate bird nests and to find branches, sticks, twigs, and leaves for our bird habitat. Parents were very helpful with the project – assisting with the initial set-up of the cricket habitat, donating materials, and going on field site visits. The students represented their learning by creating drawings, writings, and then creating habitats themselves.
Phase Three	<i>Concluding the Project</i> The project has been on display in the classroom and the parents have helped the students rebuild part of the first failed cricket home. Steps of the project with pictures are beautifully displayed in the hallway and visitors are constantly coming in. The children enjoy telling the visitors about their project. The students and their families attended a family celebration at Kohl Children's Museum where they shared their project documentation.

Comments

With young children you have to do a lot of probing, but once interested the students were hooked on the crickets, and they kept themselves going. Now I can't pry them away from the animals. The children will tell me what I should put in the cage, if the animals need food, and how many crickets they see. I think that Ivan and Imani may have benefited the most from the project. These two children tend to not do written work and are very quiet in class but they were very excited about this project. When Ivan's group finished their first stage of the cricket habitat, he said, "We did it as a team!"



▲ Children created a list of items for the cricket habitat and assigned students to bring in the objects.



▲▼ Parents assisted children in creating habitats in the classroom out of recyclable materials.



▲▼ Children created observational drawings of crickets.

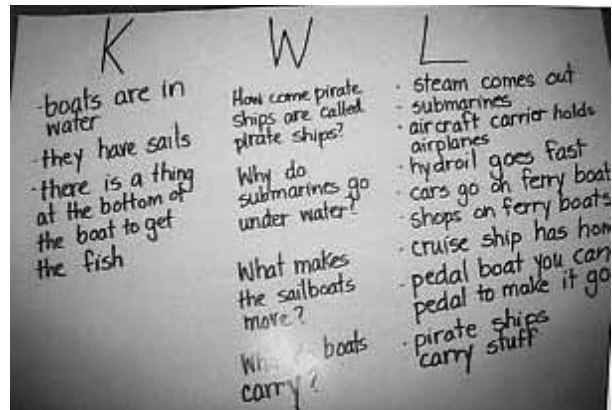
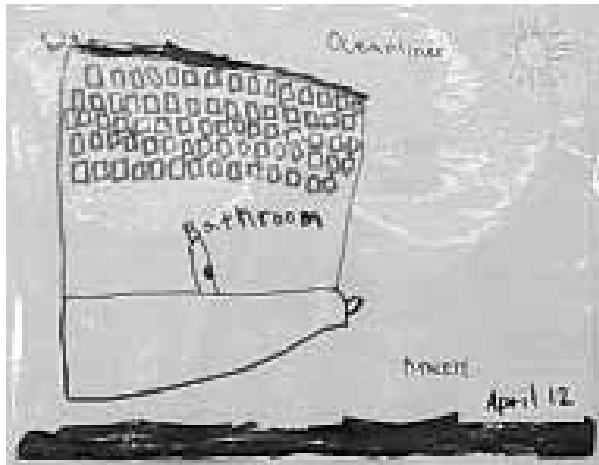


Boat Project A project by a kindergarten classroom Farnsworth School, Chicago, Illinois <i>Length of Project: 6 weeks Teachers: Laura Ryan and Becky O'Hearn</i> Participated in Program: 2006 – 2007	
Phase One	<i>Beginning the Project</i> The boat project began after we completed an experiment about sinking and floating. Students worked in small groups to see if a crayon would float in water. They created their own tin foil boats to help the crayons float. We discussed types of boats they knew about, who had seen a boat, and who had ever been on a boat. We listed the responses on a chart. The children were also intrigued with how many crayons would fit into their boats, which led to a discussion about what kinds of things boats carry. We made a list of possible items that a boat could carry. The children had many questions; we made a web to record answers to these questions. I felt this was a good topic to explore because of the high interest.
Phase Two	<i>Developing the Project</i> We began our investigations by making a sketch of any kind of boat. Next, we discussed what we already knew about boats and what we wanted to learn. We started a KWL to record our responses. We read several non-fiction books about boats including, The ABC Boat Book which was a huge success. We read this many times, and the kids looked through the book whenever they could. We brought a projector into our class so the group could look at boat web sites as a class. We interviewed our expert, Tiffani Fisher, our music teacher who also works part-time as a tour director on The Wendella. She spoke to the students about her job. She also brought in pictures and a brochure and answered their questions. This didn't change our focus, but made them aware that people had jobs working on boats. The students were interested in many different kinds of boats so we decided to work in small groups to create their favorite. We made lists of what types of materials they wanted to use, and we made copies from books so they could view boat details. Parents helped by sending in items to build boats. Students made drawings, created their own boats, engaged in pretend play, and talked about boats all of the time!
Phase Three	<i>Concluding the Project</i> The culminating event was held on report card pick up day in our classroom. All of the boats were on display and everyone had a chance to show off their creations. The students were so proud and couldn't wait to tell their parents how they made their boat. They also made a mural which was displayed in our early childhood building. One of the things that children learned was how to work together in a group. Many talents came to light and most interacted very well. There were 8 students with special needs in our class. They learned how to compliment each other and to share ideas. They learned the parts of a boat and the names of countless types of boats. They learned that people could have jobs on boats and that you can take a tour while on a boat. They also found out that airplanes could land and take off from a boat, cars could be carried on a boat, and that there are swimming pools on some boats. A new fascination was introduced!

Comments

This project helped me to reconnect with the students. It helped me to see that while our days can be quite rushed and hectic, I need to make more time to let them explore their ideas. Everyone got involved and was excited about building a boat. One of our bilingual students who is usually quiet, really got into this project. His mom gave him special stickers to help decorate his boat. He ran into school holding his stickers. A special needs student also talked with family and other teachers about her boat and every day asked when it was time to work on our boats. These events would not have happened if it were not for this project.

▼ Observational drawing of a boat.



▲ The KWL chart helped organize what children knew about boats, what they wanted to know, and what they learned about boats.

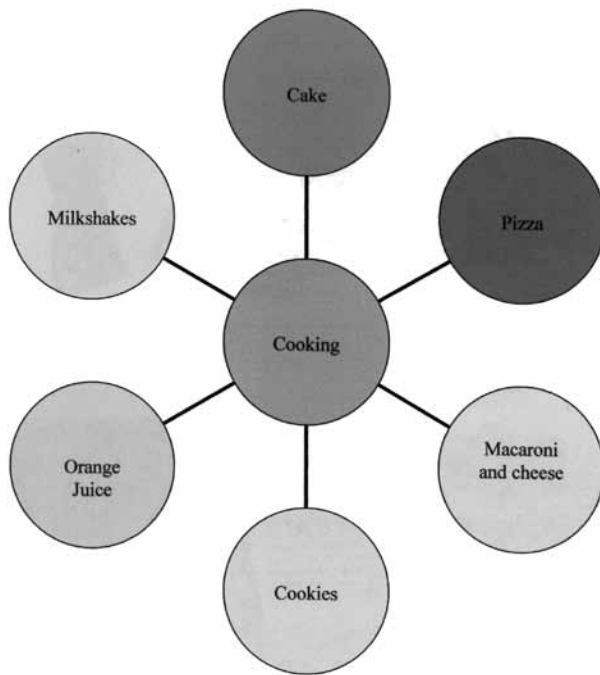
▼ Children painted a mural about boats.



Cooking Project A project by children 5 – 6 years old Yeager School, North Chicago, Illinois Length of Project: Ongoing Teachers: Virginia Kelley Participated in Program: 2008 – 2009	
Phase One	<i>Beginning the Project</i> My students like to play with the tool bench and tools in my room, so I thought this would be a good topic to pursue. As I drew the web and we discussed the topic, it became clear to me that they had no desire to pursue this topic. I suggested pets or guinea pigs (we have one in our classroom), but they were not interested. When I mentioned cooking, they lit up! We created a web and all of the children's questions were, "How do you make . . . ?" I also brought up the point that in order to be successful cooks they would need to learn hygiene, reading a recipe, measuring, counting, numbers, etc.
Phase Two	<i>Developing the Project</i> We explored several cookbooks and chose some recipes to try. First, we made green eggs and ham. It was a pre-planned activity that just happened to coincide with the beginning of our cooking project. Before we began cooking, we discussed the items we would be using, and what their idea of the recipe might be to access prior knowledge. My challenge was to make these experiences as child-centered as I could. When we made milkshakes, I asked them how to make it. They gave me a list of ingredients. I took as many of those ingredients as I had on hand and put them in the blender. They all tasted it and some thought it was ok. Then, we made milkshakes with milk and ice cream and added chocolate syrup and candy for more flavor. They all liked those milkshakes! We made cookies without a recipe as well. I paired the children and gave them flour and water to mix. They worked together to get the right consistency and they were in charge of keeping a tally of how many cups of flour and water they used. Then, we added different types of flavorings to see which tasted good. We decided these cookies were not too good! We made cookies with a recipe, and they were delicious! Now we always follow a recipe. We also made fresh squeezed orange juice, pizza, cake, macaroni and cheese, and deviled eggs with our visiting expert (our principal).
Phase Three	<i>Concluding the Project</i> The children decided that they wanted to conclude their study of cooking with a cookbook. Again I was left with the question of how to make this a child-centered activity. We named our class and took a picture for the cover of our cookbook. As a group, we sounded out all of the words for the cookbook. Each child was responsible for writing three or four of the steps onto index cards that were then glued onto the page with their drawing and their photograph. Each child was able to assemble one or two pages for the finished cookbook. To date we only have one recipe in our cookbook, but hopefully we will be able to add a few more before the end of the year.

Comments

Throughout this experience I have struggled with the question of how to make these activities child-centered. I feel that I have followed the children's lead in choosing the topic and in choosing the culminating activity, but I knew it would be difficult to make cooking a child-centered activity given that following the recipe is critical (in most cases). I did find that I needed to allow a lot of time to complete our cooking activities so that everyone could be involved in all phases of the recipe. I also needed time to help the children process all of the information they were taking in. All in all, it was a lot of fun, especially for the children, but it is hard to apply the project approach to cooking.



◀ Children's first web about cooking



◀▲ Children explored with a variety of baking and cooking tools and used them with several recipes.



Exploring Ice Cream Project

A project by children 5 – 6 years old

Solomon School, Chicago, Illinois

Length of Project: 4 months **Teacher:** Amy Gawlick

Participated in Program: 2006 – 2007

Phase One

Beginning the Project

Our topic was chosen after a child brought in *Curious George Goes to an Ice Cream Shop*. The children were very interested in learning more about ice cream after I read the book. This was the focusing event that began the project. The children represented their beginning knowledge and experiences by asking questions and letting me know what they knew about ice cream. We created a web about what more they wanted to know. The class wanted to investigate many things. We decided that we wanted to investigate how to make ice cream. My expectations for the project were that I wanted to let the children explore all aspects of ice cream and to have fun.

Phase Two

Developing the Project

We read many different ice cream books and studied different types of ice cream. We discussed the ingredients needed to make it. We also enjoyed exploring syrups. We investigated how long it took for a popsicle to melt. The children wrote predictions about how long they thought it would take (it took 1 hour and 21 minutes for it to melt). We also tasted cones and tallied our class results. We created an ice cream shop, and the children explored what it was like to be in a shop. It was also a fun way to explore money. We made menus for our ice cream shop. The children also pretended to make flavors by using food coloring to change cotton balls into different colors. The children wrote about their favorite types of ice cream. They also created ice cream artwork.

Our expert visitor taught the children a lot about ice cream. She discussed the history of ice cream, what country eats the most and what flavor is the most popular. She shared many interesting ice cream facts. The investigation questions were redirected by the experience and more questions were asked after the visit with the expert. Parents were involved through verbal communication. The children represented their learning through artwork, writing, playing ice cream shop, books, and pictures.

Phase Three

Concluding the Project

The culminating event that closed the project was actually playing ice cream shop. Most of the school knew we had been working on an ice cream project and came in to see the kindergarteners playing and exploring ice cream. Their awesome artwork and writings were displayed for the whole school to view. The children learned so much from the project! They obtained a lot of knowledge on the topic, improved their social skills by working together, developed a positive attitude about investigating new things, and really let their creativity shine. The children gained a greater interest in exploring new topics. It was a wonderful experience.

Comments

I learned a lot after concluding the project. I learned that children really do learn from one another and love to teach each other. I appreciate that children never want to stop learning. They came up to me everyday with a new question regarding ice cream. I learned that I also enjoy investigating, and it is fun. I was surprised by the incredible questions the children asked throughout the project. They continue to ask more questions and want to conduct more experiments. I believe this was a good topic. I loved watching them play ice cream shop. This project made me remember why I love being a teacher.

- Children listed questions they wanted to investigate.



◀ Final Web

Fire Truck Project A project by a bilingual kindergarten classroom Walt Whitman School, Wheeling, Illinois Length of Project: 2 months Teacher: Roberta Schiavinato-Manley Participated in Program: 2007 – 2008	
Phase One	<i>Beginning the Project</i> The topic was chosen because students showed an interest in fire trucks. This interest stemmed from a brainstorming session and discussion of our community and the people who work in it. After our discussion, students were excited about fire trucks and wanted to find out more about them. They had basic knowledge of fire trucks but also had many questions. We decided to investigate and write their questions on butcher paper. Some questions included: how many wheels does a fire truck have? How much water does it hold? How many firefighters climb the ladders? I expected my students to be engaged and excited about the project. I wanted them to be able to find answers to their questions and much more!
Phase Two	<i>Developing the Project</i> Students were encouraged to read books purchased for the project. During this phase, we also investigated videos and pictures that were taken at the fire station by me and the other kindergarten teacher. As a group, we talked about the fire truck pictures. Students decided which part of the fire truck they were most interested in: wheels, ladders, steering wheel, lights/sirens, etc. and then made observational drawings from the pictures. We visited the fire station for a tour and information session with the firefighters. Students explored, drew, and asked questions. We took many pictures to use as resources for building our own fire truck. Parents were invited to be part of the field site visit. The fire fighters at the site were very receptive to the students' questions about the firehouse, fire truck, fire fighters, and their gear. Students represented their learning by observational drawings, writing letters to another class, and by the final project in Phase III.
Phase Three	<i>Concluding the Project</i> Our culminating event was to build a fire truck out of cardboard boxes. We reached out to the local community for project supplies. The children really had to learn to work together in their groups to build all the different parts of the truck. Every student helped paint the fire truck and students exchanged notes with each other to monitor the progress of the project. Students became engaged and felt like experts on fire trucks. They developed problem-solving skills, drawing with details, and asking questions. They were able to see the importance of different community members. The project was shared with the parents through newsletters and pictures sent home. Parents were able to visit the classroom the day of the celebration at the museum. We also sent out invitations to all homerooms in our school to come see our awesome fire truck.

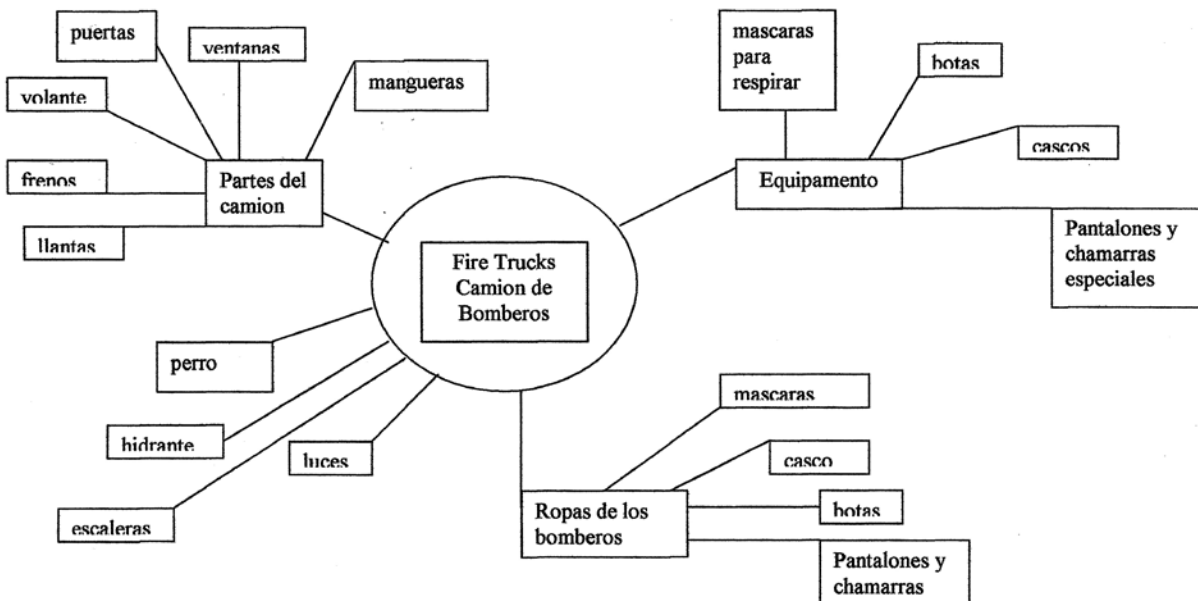
Comments

It was exciting to do this project with my students. It is amazing what “little people” can accomplish. The students were interested and engaged in investigating, observing detail, and building the fire truck. I did not think that at this age they would be able to be independent and come up with such great ideas. The field site visit was a crucial experience for my students. They were so thrilled that they couldn’t wait to get back to class to build their own fire trucks. They are very proud of their accomplishments, and so am I. It was a challenging time management experience and at times a little overwhelming, but when I saw how engaged students were, it was all worth it!



◀ Children constructed a fire engine out of cardboard boxes, paper, paint and other material during their investigation.

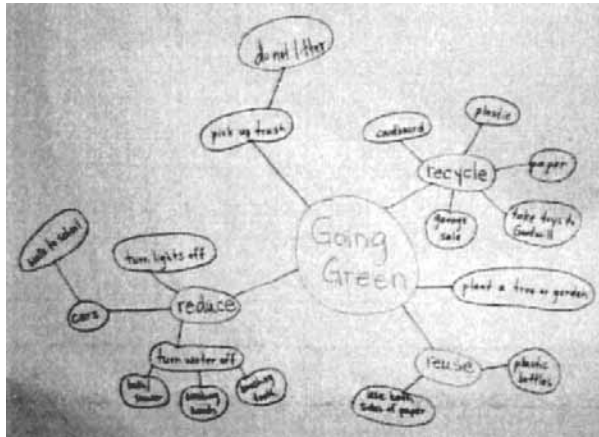
▼ Final Web



Going Green Project A project by a kindergarten classroom James G. Blaine Elementary, Chicago, Illinois <i>Length of Project: 5 months Teacher: Mrs. Krystal Verstraete</i> Participated in Program: 2007 – 2008	
Phase One	<i>Beginning the Project</i> Brainstorming a possible topic was more difficult than I expected. In December, one of my kids brought in a book to share with us, and the topic of interest became clear. She brought in <i>When Santa Turned Green</i>, by Victoria Perla. The focusing event was developing a web to see what we knew about the topic. It wasn't until we broke it out into the 3 R's (reduce, reuse, recycle) that the kids could contribute what they knew. The broad question we decided to investigate was: "What can I do to help save Mother Earth?" My expectations were for an increased awareness of what it means to "go green," make eco-friendly improvements, and play an active role in saving the world by recycling, reusing, and reducing.
Phase Two	<i>Developing the Project</i> We broke the project into three categories: recycling, energy conservation, and water conservation. During our recycling exploration (which lasted 3 ½ months), we read several books about why it is necessary to recycle, what items could be recycled, and where things go once they are sent to the recycling center. In an effort to learn to appreciate our own paper more, we made paper using recycled paper and other items found on a nature walk. We also each brought in an item we wanted to recycle, talked about it and then created something using the items. The children decided to do this project in two groups: a boys' team and a girls' team. The girls created a stage and puppets, and the boys recreated the City of Chicago. We also had a parent come in to share with us how recycling is done in Japan (we learned that the U.S. still has a long way to go!). A few other project highlights: Whole Foods donated 30 reusable shopping bags, EcoBags donated 30 eco bags, Arne Duncan wrote us a letter personally thanking us for bringing attention to this topic, and the children developed an invested interest to start making changes now.
Phase Three	<i>Concluding the Project</i> There were two culminating events that closed the project. First, we wrote a book about small things we can do to save our Mother Earth. Each of the children wrote a page, and we were actually published! You won't see our book in bookstores, but each family got a hardbound copy of <i>Make Every Day Earth Day: A Kindergarten's Guide to Saving Mother Earth</i>. The second culminating project was a photo scrapbook. Over the course of the exploration, students took pictures of things they were doing at home to help our environment. They then created a scrapbook showcasing their photos with captions that detailed how they helped the environment. The scrapbooks were due on April 22, Earth Day!

Comments

Looking back, I believe this first attempt was more of a unit that had several projects within it. The two actual projects were the making of paper and the projects they made from their recycled "trash." The projects they constructed took about two weeks to complete, and through it all, I've never seen the students work so well together. They were deeply focused and engaged in what they were creating. Their interest level was sky-high, and the finished pieces were very meaningful to them and me. Overall, I feel the project was extremely rewarding for all involved.



◀ Children's web about what they know about recycling

▶ Children created a book that is about what we can do to keep the environment clean.



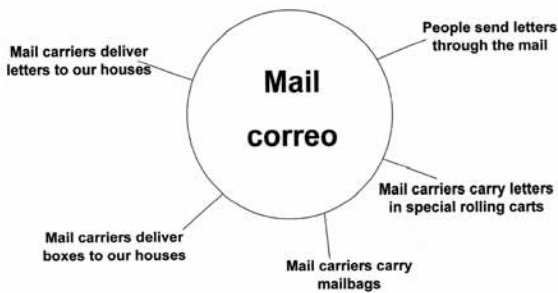
◀ Children created recycled art sculptures.

The Mail Project A project by children 5 – 6 years old New Field School, Chicago, Illinois Length of Project: 4 months Teacher: Susan Orozco Participated in Program: 2005 – 2006	
Phase One	<i>Beginning the Project</i> The topic was chosen as a result of the children's interest in writing letters to one another and to me from early on in the school year. They would "write" the letters at home and bring them to school or they would get together and write them at our writing center during center time. We made a basic web that included five or six facts that the students knew about mail. I asked them if they knew how the mail process worked and told them that my sister is a mail carrier. We called her from the classroom and invited her to visit during the following week. We wrote a list of questions on chart paper that the students wanted to ask her. After the mail carrier visited us, the class chose to investigate how to write a letter, address the envelope, and how mail is delivered. All of the ideas generated from the mail carrier's visit were written on chart paper.
Phase Two	<i>Developing the Project</i> We went on a field trip to the Museum of Science and Industry and visited the Zephyr train's mail car exhibit to learn about how mail was collected, sorted, and delivered by train. Parent chaperones accompanied us and helped children to ask their questions. We also took a walk in the neighborhood to see the different types of mailboxes. A mail carrier visited our classroom and the students asked her many questions. We learned a lot from her. A parent also visited our classroom and helped students practice letter writing. Parents encouraged letter writing at home. Some allowed their children to help mail bills and correspondence from home. The students wrote letters home from school and parents were excited to receive letters from their children. In addition, we turned part of our housekeeping area into a pretend post office. Students role-played as the classroom mail carrier. We kept journals about the mail project in our portfolios.
Phase Three	<i>Concluding the Project</i> We built a large mailbox out of cardboard boxes in our classroom and also wrote a class book about the mail. The children have learned to work together in teams or groups to solve problems. The problem-solving skills really developed as we worked on building the mailbox. They have become experts at how to address envelopes and writing the basic parts of a letter. They have also learned how to create observational drawings.

Comments

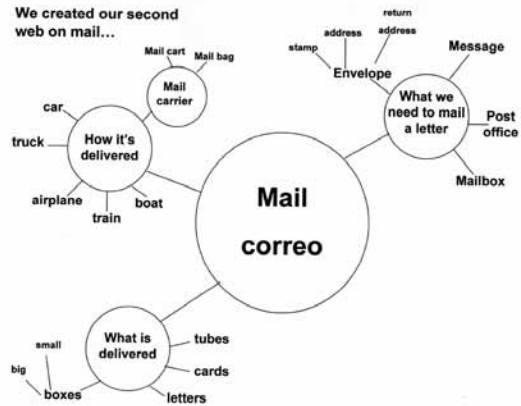
The students really directed the topic. Although we put the project on hold a few times as other things demanded our time, we always returned to it. Even as we began the culminating activity for the project, the students remained very interested in writing letters and role playing in the post office. I would not be surprised if their interest in the mail lasted beyond the end of the school year. I was also surprised by how many of the Illinois Early Learning Standards were covered and in how many content areas: Language Arts, Math, Science, Social Studies, Physical Development/Health and Social/Emotional Development.

We created our first web on mail...



▲ Web 1

We created our second web on mail...



▲ Web 2



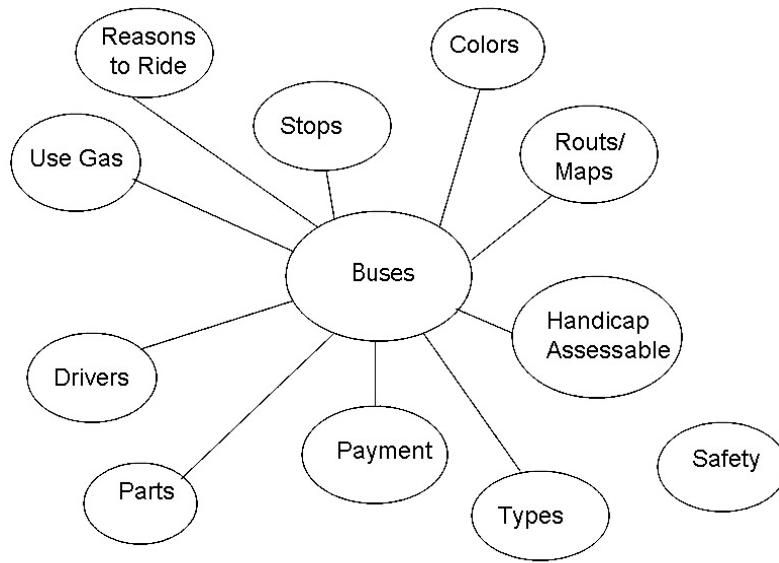
Students investigated how to address envelopes to mail letters to friends and family. Students created a post office in the classroom and role played being a postal worker.



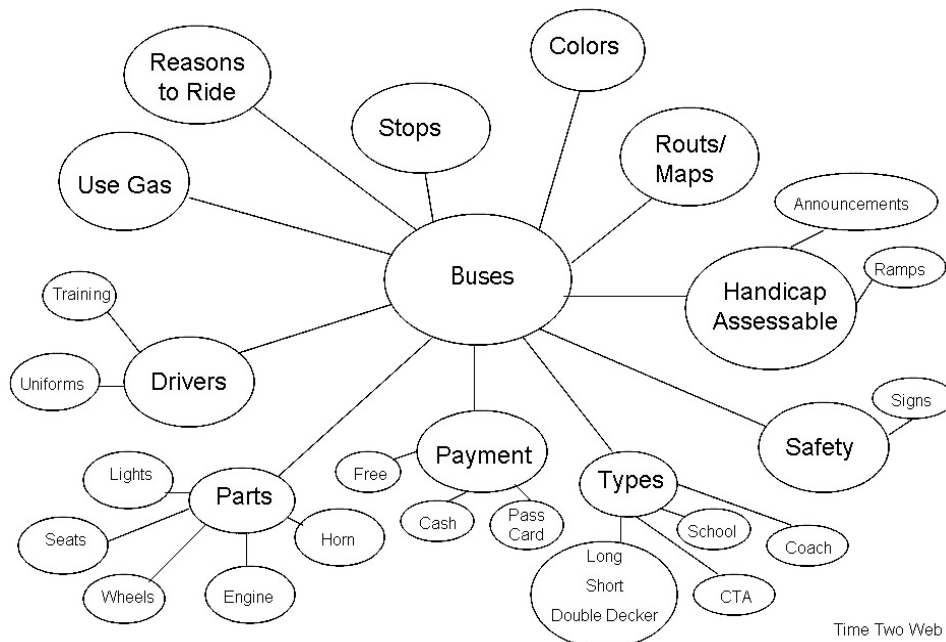
School Buses A project by a kindergarten classroom Gladstone Elementary School, Chicago, Illinois Length of Project: 6 months Teacher: Ann Kuhlman Participated in Program: 2005 – 2006	
Phase One	<i>Beginning the Project</i> The students at first generated a long list of topics that interested them. We decided to use a voting process to come to a final decision. We agreed that we wanted to learn more about buses and used a web to gather information about what the children already knew about them. I was concerned that including both city buses and school buses would be too much for my students to handle. However, the students decided to focus specifically on school buses. I began the project by using one of our favorite songs, "The Wheels on the Bus." This helped my students get into the mode of thinking about buses. We read many books about buses and then completed observational drawings of a toy model school bus. The students decided that they wanted to focus mainly on the physical characteristics of a school bus. I recorded some of their questions for later use.
Phase Two	<i>Developing the Project</i> My students observed and took detailed drawings of a school bus on three separate occasions. I arranged for Maurice, the school bus driver, to bring his bus to our parking lot. This allowed the students to safely observe, take notes, and investigate the bus. The students chose a particular part of the bus in which they were interested. This allowed us to create several groups of "experts" who knew about the dashboard, front, back, side, wheels, and inside of the bus. The children asked the bus driver many questions and recorded their own answers. The students were able to work in groups to reproduce a bus using clay, paint, play dough, construction paper, and drawing a representation on a fabric square. Students represented their learning through creating clay models, observational drawings, fabric square drawings integrated into a classroom quilt, dramatic play, art and written notes. The student's written interview notes included numbers, measurement, shapes and words.
Phase Three	<i>Concluding the Project</i> Our project fueled a lot of curiosity from the first grade class. They came into our classroom and talked to the students about why and how we built a school bus. We also had a group of senior citizens visit our classroom. They were very excited to hear the pride in the voices of our children as they explained all about their school bus. We extended an invitation to the administrative staff at our school to look at our bus and find out about all of the things the students have learned about school buses.

Comments

I am thrilled that the children have enjoyed every aspect of our project. They have taken ownership of their learning and show pride in their accomplishments. My students have learned so much from this project investigation. Most importantly, they have learned how to better communicate with each other. They enjoyed working in small groups and taking lead roles in the development of the school bus. My students were taking written notes that were meaningful to them and after being posted in the hall, their writing abilities even impressed the writing specialist. I wanted them to develop their own knowledge about school buses – their function as well as their design. I wanted them to develop their own questioning strategies and be responsible for the course of this project. I feel that we accomplished these goals.



Time One Web



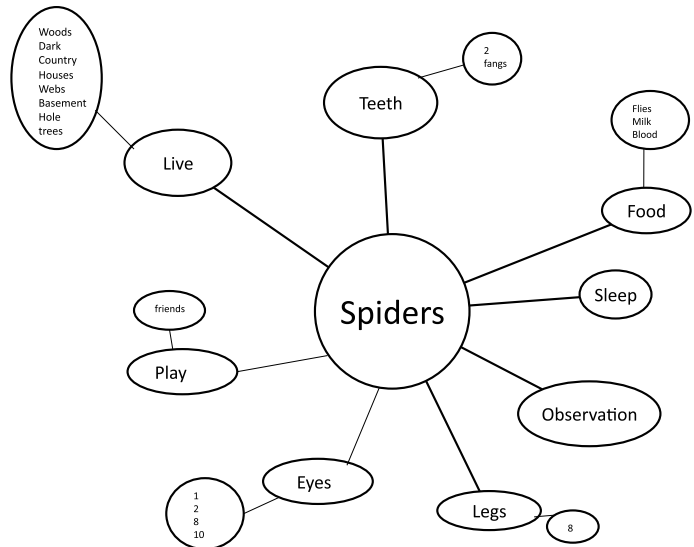
Time Two Web

Spiders Project A project by a kindergarten classroom South Loop School, Chicago, Illinois Length of Project: 4 months Teacher: Melody Grimes Participated in Program: 2007 – 2008	
Phase One	<i>Beginning the Project</i> I first began by asking the children about different things that they liked. I made of list of topics they would like to learn more about. We voted on which topic they wanted to investigate and learn more about. The final list consisted of spiders, snow, butterflies, the zoo, cars, and horses. When we tallied the vote, spiders won, and the class was excited. Next, we created a KWL web. The kids asked a lot of questions about spiders and had some prior knowledge. I was unsure about how to explore this topic, so I did internet surfing and discovered I could order a tarantula! It arrived the same week we returned from winter break. I was so excited!
Phase Two	<i>Developing the Project</i> To aid in the discovery and investigation process, I ordered books, videos, and arts and crafts supplies related to arachnids. The kids were very excited when the spider arrived. They drew a picture of a spider after I read a spider story. Most drawings included spiders in a web or in a park. We spent a lot of time observing and learning how to care for our class spider. We had a naming mini-party. The tarantula was called a rose-haired tarantula, but the children came up with the name "Rosie" by observing the spider and before they knew her scientific name. They were fascinated by how Rosie moved. Videos about arachnids helped provide important information on habitats, habits, and care. We observed tarantulas while on a field trip to the Lincoln Park Zoo. There was a tarantula's molted shell on display for students to view and touch. Before this experience, we did not know that tarantulas molted! After the field trip, they daily asked when Rosie was going to molt. Unfortunately, we did not get to observe this in class. I noticed that, independently, the students began to draw more detailed pictures of Rosie. Everyone was excited about Rosie—parents, other teachers, the janitor, lunchroom staff, and the principal. The students loved to share important facts with all visitors. They drew detailed pictures of spiders on dry erase boards and wrote down words from the science wall. They also used Unifix cubes to make spiders.
Phase Three	<i>Concluding the Project</i> I held a parent workshop to discuss project based art and to inform the parents about the process and discovery. We made webs; however, we found out that tarantulas don't spin webs like other spiders. I noticed that their drawings became more detailed and descriptive. By the end of the project, the children were very knowledgeable and able to answer any questions that visitors had. As a culminating activity, we created a class book about Rosie. One of my students took Rosie home for the summer.

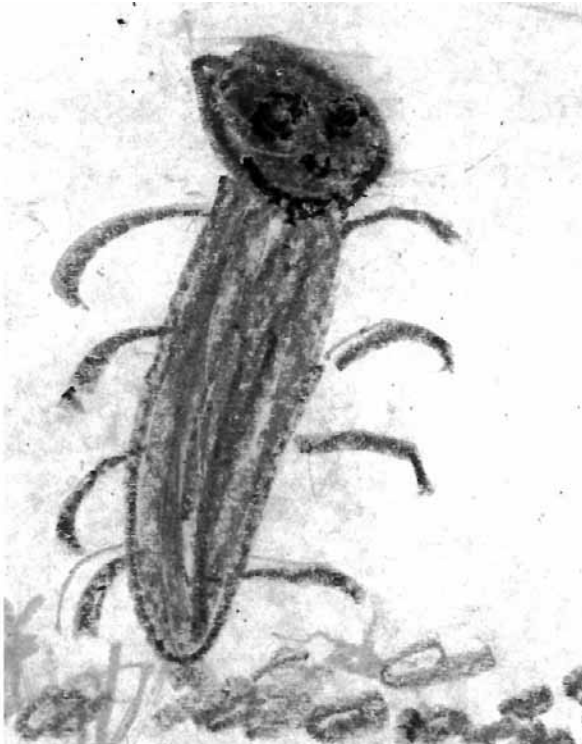
Comments

I learned a lot during this project. I thought that I was familiar with basic information about spiders, but I found out that there was a lot that I did not know. One of the most fascinating things for me was learning that tarantulas don't spin webs like other spiders. This project was completely out of my comfort zone because I am very squeamish about anything that is creepy or crawls. I sacrificed my comfort for their learning, which was a great discovery for me. I really let the kids take the lead for this project.

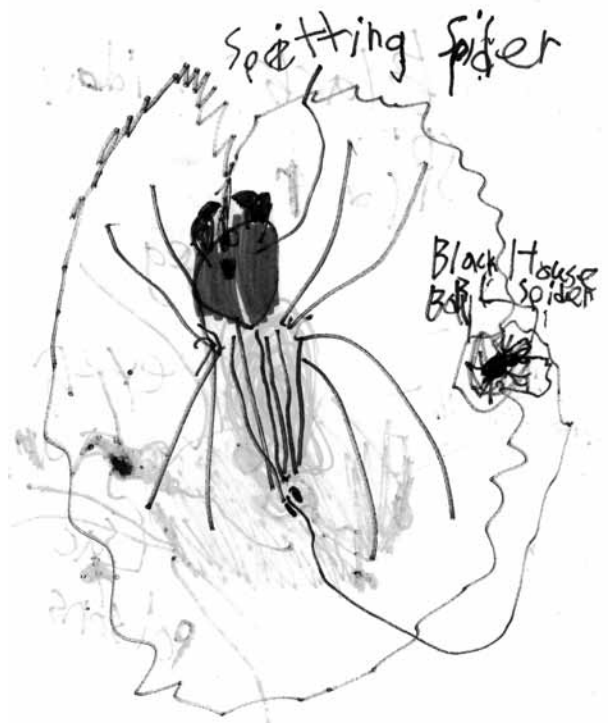
► First Web



▼ Time One Drawing



▼ Time Two Drawing



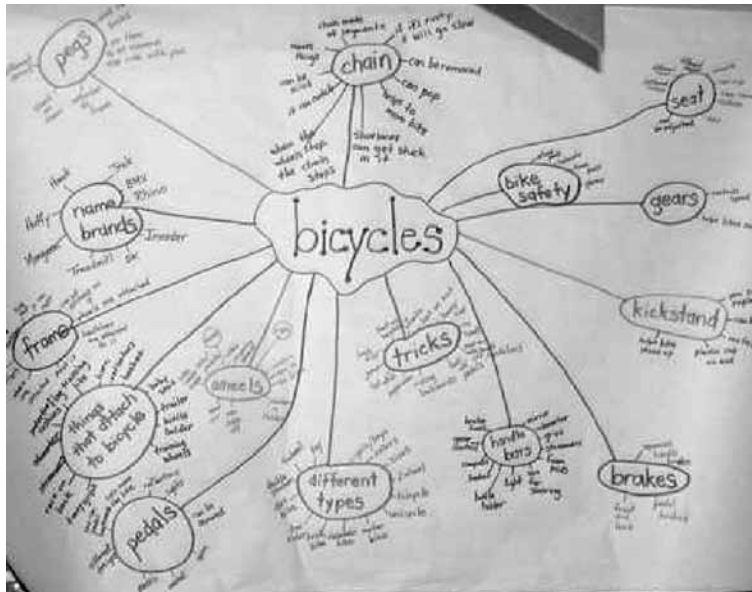
El Veterinarian A project by children 5 – 6 years old Willard School, Evanston, Illinois Length of Project: 7 weeks Teachers: Maria Torres and Alicia Quiroz Participated in Program: 2007 – 2008	
Phase One	<i>Beginning the Project</i> We selected this topic because a large number of students showed an interest in the veterinarian's office following our visit to Kohl Children's Museum. Several students talked about currently having dogs or having had dogs, and one student had gotten a puppy that I thought the students could observe. Through a whole group discussion about vets, I learned that about $\frac{3}{4}$ of the class was familiar with some aspects of what a vet does. During our visit to a vet's office, students took an interest in some of the equipment; they noticed similarities in the equipment at the vet's office and their pediatrician's office.
Phase Two	<i>Developing the Project</i> During our visits to the animal hospital, students saw a variety of medical equipment. The vet explained how the equipment was used and answered questions that the students had generated prior to our visit. Our classroom expert was the parent that brought in the puppy. "Stanley" the puppy was brought in weekly so that students could chart his growth. Parents were also involved by supplying two stethoscopes, teaching students how to use them, how to use microscopes, donating gauze, tape, bandages, syringes, and other props for the students to use in the clinic. Students represented their learning by charting Stanley's weekly measurements. Other students represented their observation of Stanley through painting, story writing, and labeling, and through the creation of an animal hospital building, including painting bricks on their creation since, "that's the way the building looked." Students also used the equipment and supplies on one another and on play animals. During the course of the creation of the building and other equipment, there was plenty of discussion and negotiation about what needed to be done and how problems would be resolved.
Phase Three	<i>Concluding the Project</i> The culminating events were the video tape session. During these sessions, students talked about their area of interest or what they worked with during the project. The project was shared with the school community when it was exhibited outside of the classroom in the hallway. One of the biggest student growth areas was in the communication and cooperative group process as students negotiated how their creation should be built and then discussed and sought input from one another. Oral language development and socialization were key areas of growth during the project. The students had exposure to writing including labeling, mathematics through measurement and data collection of Stanley's growth, and science through using the equipment.
Comments	Students directed their own learning by creating or building and trying alternatives to accomplish their goals. It was challenging for me to know when to step into the activity to provide direction. I think I provided sufficient intentional guidance during their play exploration while they created their vets clinic. My learning goals were not always clear during the project. Further, I wish that I would have asked more questions during their independent work to understand their thought processes and to determine what they were learning. During future projects, I would document student learning during the course of study instead of waiting and having them summarize at a later date.

Trees A project by children 5 – 6 years old George Manierre School, Chicago, Illinois <i>Length of Project: fall through spring Teacher: Mary Bell DuBois</i> Participated in Program: 2006 – 2007	
Phase One	<i>Beginning the Project</i> The project topic was chosen by the students after our first trip to The Grove Nature Center in Glenview. Our visit to The Grove was taken at the height of the fall season with leaves changing color. Students were fascinated with the tree sizes, shapes, leaf colors, and the feel of walking in a nature center. My students are from the Cabrini Green Projects and surrounding areas and had little previous experience with nature, trees, insects, ponds or animals found at The Grove Nature Center. Students asked why certain leaves are different from others, and, "Why the trunks of the trees are not all the same?" "What holds up the trees?" Students expressed interest in their observation of nests in some of the trees in and around The Grove.
Phase Two	<i>Developing the Project</i> After returning to school, students observed, categorized and described the characteristics of trees near the school. This process continued throughout the project, from fall to spring. After the fall field trip, we visited The Grove for a second time in January to observe, draw and describe the changes of the trees and surrounding areas. After the second field site visit, students compared The Grove's trees with those around the school. On neighborhood walking trips, students took note of evergreen trees with needles still intact during the winter, and they began to speculate about animals they might see on future walks. We started a list of possibilities on the chalkboard. Eventually, the class was divided into smaller exploration teams, with one student from each group in charge of carrying the clip board and felt pen. All explorers were encouraged to point out any life they saw in the trees for the recorder to draw a picture of or to write down. Students looked for birds' nests, squirrels, bees or other flying insects. Students discussed their observations and checked off on the chalkboard any of the creatures they observed. Parents were invited to participate in a hands-on activity: observing and measuring tree trunks and estimating a tree's age.
Phase Three	<i>Concluding the Project</i> At the time of reporting this project, there was no culminating event because we were planning a spring season visit to The Grove. We did attend, "Go, Dog, Go!" at the Chicago Children's Theater in Grant Park which told the story about dogs that end up having a party on top of a very large tree. Parents were invited to attend the play. The students enjoyed this very much.
Comments	Reflecting on this project, it is now clear during our regular discussion times that the students' tree knowledge and vocabulary has dramatically increased. Students frequently express the understanding that trees are all around us in their inner city community, not just on a nature walk through The Grove, and that trees are important to us in everyday life. They know that trees are home to many living things and that these living things depend on trees for survival. What surprised me most about this project was the amount of detail some of the students used in their observational drawings of trees around their school.

Bicycles A project by a second grade classroom H.R. McCall School, Waukegan, Illinois <i>Length of Project: Three months Teacher: Julie Huber and Laurie Shields</i> Participated in Program: 2005 – 2006	
Phase One	<i>Beginning the Project</i> Our class was reading a book about a boy who has to learn to ride a bike for a school bike-a-thon. The children were very intrigued by the boy's dedication and his fears. They began to make connections to their own experiences. Several children eagerly shared stories about how they learned to ride a bicycle. We began by making a web of what they already knew about bicycles. We also had the children fill out a bicycle survey to gauge their prior experiences. The classes had a brainstorming session and came up with an incredible amount of questions to investigate, which the teachers then recorded.
Phase Two	<i>Developing the Project</i> The first thing we did was go to the public library to find every book we could on bicycles and simple machines. The children huddled over the books in groups oohing and aahing over the new information. Many of the children also used their computer time to investigate and uncover new information. This was very exciting for the teaching staff as in the past they only wanted to play learning games that were set up like video games. We were fortunate to have someone from Zion Cyclery come and spend the morning with us. He brought a bike and tools. The students were ready with questions, clipboards, paper, and pencils in hand to absorb and document everything that the expert visitor said. The students took more notes than we could keep up with and amazingly these notes were never lost. Next, we conducted a field visit to the new BMX Park in Waukegan. Two teenage boys met us there and talked to the children about bikes and gears. Throughout this project, the children represented their learning through drawings, clay sculptures, books, videos, play environments, constructions, writing, and webbing.
Phase Three	<i>Concluding the Project</i> The bicycle project was concluded when the children created a video of a children's news show. The children were provided with a variety of materials and given the opportunity to demonstrate what they had learned about bicycles in their own way. Students created presentations to share their final product. We planned a special night for the children's parents to come to the school for a viewing of the video that the children created. A copy of the students' video will be placed in the school library as a resource for other teachers.

Comments

The topic really interested the children. They maintained this interest and dedication to the project through its completion. We admit that we had some doubts as to whether our children would be able to keep the investigation going and focused. We were ecstatic about what we saw. The more we “let go,” the more the children “held on.” There were times when we, as teachers, felt overwhelmed but we just kept pushing forward and learned from our mistakes. With more practice and hard work we feel that we will be able to get to a place where we are comfortable and confident in utilizing the project approach.



▲ Web on bicycles



▲▲ Creating observational drawings of a bike



▲ Generating a list of questions to ask the bike expert



▲ Opportunities to ask the bike expert questions

Instruments A project by children 6 – 7 years old Cooke Magnet School, Waukegan, Illinois Length of Project: 6 months Teacher: Ellen Gordon Participated in Program: 2005 – 2006	
Phase One	<i>Beginning the Project</i> As a class, we brainstormed and came up with topics about which the children were interested in learning more. A child who was just beginning to learn how to play an instrument suggested investigating instruments. The children wanted to investigate how they got the word instrument, how different instruments sound, what the instruments looked like, and what the first instruments sounded like. They were also interested in watching people play instruments and experimenting with instruments themselves. We recorded all of the questions on a web and branched out with other questions of interest.
Phase Two	<i>Developing the Project</i> Our class began our investigations by researching the different instruments using books from the library. The children were partnered up and they chose an instrument book that interested both of them. The investigation questions remained basically the same after the library research time; the students primarily wanted to focus on developing a concrete understanding of different instruments. The children also created journals into which they recorded information from our experts and then illustrated their information. Our experts included Ms. Diamond, who teaches instrument instruction to the older grades. She visited and spoke to us about the woodwind family. Mrs. Dudley, whom some of the children know from instrument instruction, spoke about different types of instruments. A few of the parents were actively involved when we created our own unique tambourines. The children experimented with and observed the different sounds from each tambourine. The children were able to experiment with different instruments such as rhythm sticks, maracas, brass cymbals, triangles, egg shakers, jingle wraps, sand blocks, jingle clogs, cluster bells, hand tom-toms, snare drums, and mini cymbals. We also used clay to create our favorite instrument to display.
Phase Three	<i>Concluding the Project</i> Our culminating event was to create our own orchestra by experimenting with some instruments such as tambourines, maracas, rhythm sticks, jingle clogs, brass cymbals, egg shakers, hand tom-toms, snare drum, and mini cymbals. We planned and gave a music performance at our Family Celebration in June at Kohl Children's Museum. The children experienced the feeling of playing the different instruments, as well as learning how the instruments produce amazing different sounds.

Comments

The children developed their problem-solving skills and enhanced their abilities to find solutions to the different questions. We documented our data through journaling and artwork. The children benefited from learning about the sounds and the acoustics of different instruments. When we did partner work, the children learned how to work in a collaborative fashion. One child would read the material and record the data, while the other child would illustrate the instrument or information.



- ▶▲ Musical experts came to the classroom to allow students to investigate different types of instruments.



- ▶▲ Students created paintings and replicas of various types of instruments with paint and recyclable materials.



Pizzeria A project by children 8 – 9 years old Little Fort School, Waukegan, Illinois Length of Project: 6 months Teacher: Jaime Rojas Participated in Program: 2005 – 2006	
Phase One	<i>Beginning the Project</i> I decided to begin the project by walking around the school with the students to help them choose some possible topics. We came up with the following alternatives: Jewel supermarket, bank, pizzeria, gas station, pharmacy, and fast food restaurants. Before we voted on a topic, I reminded the children that the place we selected needed to be near the school, accessible, interesting to them, and provide the opportunity to communicate in Spanish. The students voted and decided on the pizzeria. Once the students decided on the topic, they expressed their knowledge and experiences during an informal conversation. This conversation took us over some questions that they decided to write and integrate into their webs.
Phase Two	<i>Developing the Project</i> Once they had the web and the questions written, we decided to form three groups that would be in charge of the next areas of investigation. Group 1 would investigate the main ingredients in the pizza (flour, cheese, and tomato). Group 2 would investigate the equipment and prices to be used in a pizzeria. Group 3 would investigate sales, costs, records, prices, etc. The students seemed to be very shy to ask questions of people they did not know. Therefore, we practiced the tone of voice to use and the way to ask questions. Our visit to Little Caesar's Pizzeria was very interesting. First, one person gave us an explanation about how the pizzeria works. Then the children had the chance to talk to any of the employees in the pizzeria. Some went into a huge refrigerator and talked to a manager. Other students talked to the person kneading the dough. Another group of students talked to the other manager, who taught them how to prepare the pizzas. All of the students showed their learning by drawing, writing, and discussing how a real pizzeria operates. They were all very curious and eager to know about the pizzeria.
Phase Three	<i>Concluding the Project</i> We culminated with some reflections about the project. This may have been the most important part of the project because it provided me with important feedback. We displayed our project documentation for the parents and the Little Fort community during Math Night.

Comments

I think this was a great opportunity to apply knowledge to a real-life situation. The students used many skills with this project. I felt satisfied with the investigation, the participation of my students, and of course with the achievement of the class.



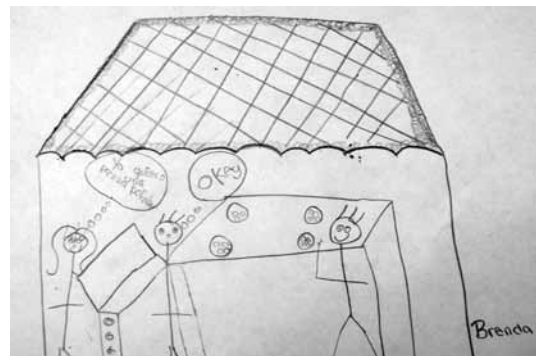
▲ Creating a web about pizza



▲ Painting giant pizzas



▲ Visiting a local pizza restaurant to learn the process of making a pizza



▲ Examples of children's observational drawings ▲

Post Office Project A project by children 6 – 7 years old Walt Whitman Elementary, Wheeling, Illinois Length of Project: 2 months Teacher: Alicia Gallegos Participated in Program: 2007 – 2008	
Phase One	<i>Beginning the Project</i> The project began when the students expressed interest in a student's letter written to Santa Claus. We talked about letters and letter writing which led to many questions about how letters are prepared to be received and how mail moves from place to place. These questions were usually generated as a group when we first began exploring the post office. As we began to prepare for our visit from the postman, individual students began generating questions. At this point, my expectation was to "feel out" where the students wanted to take the investigation.
Phase Two	<i>Developing the Project</i> The students began the investigation by exploring how teachers within our building received mail and where it came from. From that experience, they learned that mail was dropped off by teachers, personnel and the local mailman. They developed questions for the mailman, particularly how he was receiving, delivering, and moving the mail. Our post office visit resolved many of these questions. The students began investigating how they would move mail within the building. They set up their own post office in class to prepare themselves for communicating (through letter writing) with their friends in Mrs. Zuren's third grade class. They spent part of their center time "working" in the post office, and delegating how it would be run. By the end of phase two, the investigation questions changed as students began showing more interest in stamps. This led to an investigation of how they would create stamps that were similar to the ones they observed. Throughout phase two, students represented their learning through observational drawings of mailboxes, the mail truck, and stamps.
Phase Three	<i>Concluding the Project</i> As interest in the project began to lessen, students were still interested in stamps, particularly in the notion of commemoration: the idea that symbols, people and events could be celebrated and remembered. For their final project, they designed their own stamps. They shared their stamps with their third grade buddies, their families and with the staff. The students also had an opportunity to vote for their favorite stamp to commemorate into a real one! Students were able to take the knowledge they learned from the sources within their community and apply it in a very personal and meaningful way. This concluding project gave students an opportunity to see themselves in something that would otherwise bear little meaning for them.

Comments

I feel that this project was particularly tough because there were not many artifacts students could get their hands on. Even with teacher prompts and questioning, the project felt limited in its potential for students to be more enveloped and invested, particularly when I couldn't prompt them on something they were seeing or exploring. I feel that the observational drawings are very powerful, and I am amazed at how capable the students are in capturing the details that they see. If I could do this project again, I would definitely change two things: I would focus the students on something that is more accessible to them, and I would document a whole lot more!



▲ Children documented the different parts of the mail truck through observational drawings.



▲ Children wrote and received letters from friends and family members.



▲ Children explored how to use and create postage stamps.

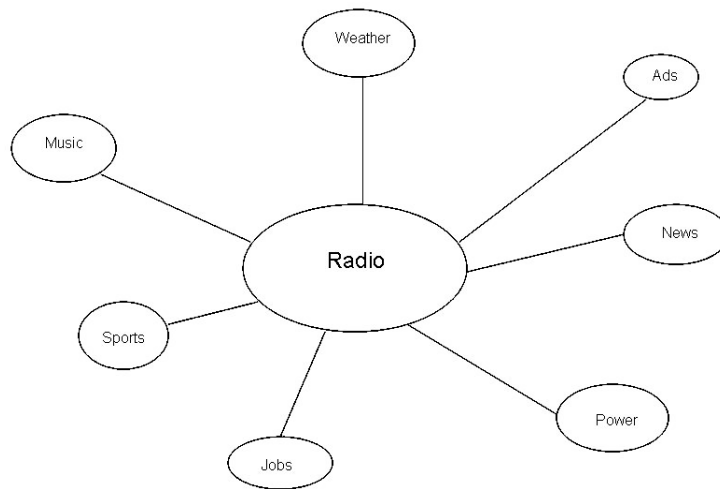


▲ Children visited the local post office to learn about the process of sorting mail.

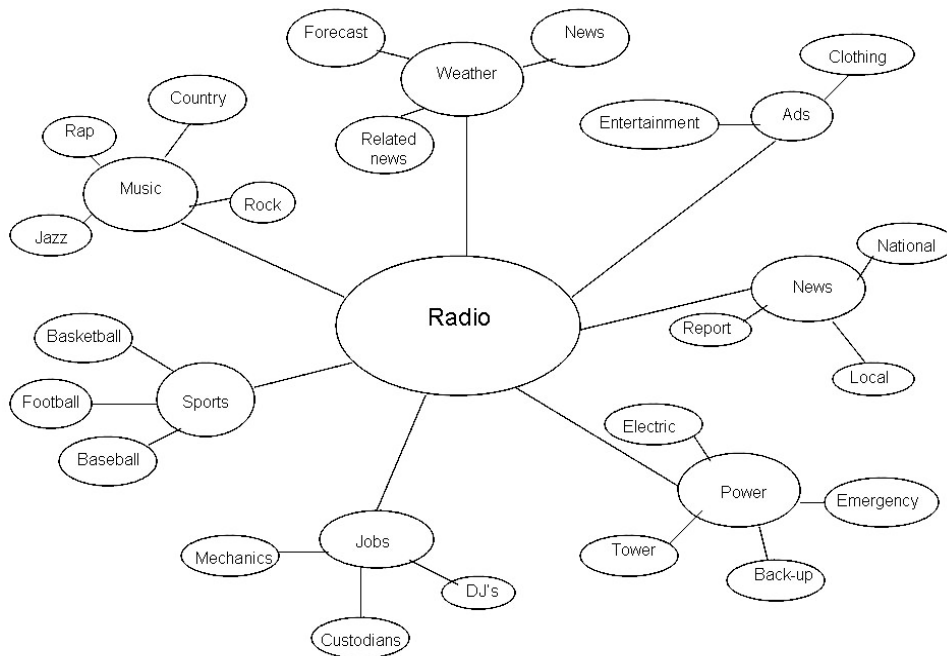
Radio and Sound A project by a second grade classroom Little Fort Elementary School, Waukegan, Illinois Length of Project: 6 weeks Teacher: Winona Kay Landrus Participated in Program: 2005 – 2006	
Phase One	<i>Beginning the Project</i> The students discussed topics about which they were interested in learning. They completed a survey of 20 different topics of interest and then broke that down to the top five topics. The topic of most interest was radio and sound. We began by looking at photos of a local radio station, listening to a broadcast, and taking a field trip to Kohl Children’s Museum to experiment with sound and musical instruments. The students completed an interest web and discussed further questions that they wanted to investigate. The questions were recorded by students.
Phase Two	<i>Developing the Project</i> The students were encouraged to read research books from the local library, listen to radio broadcasts, and discuss a future field trip to the local Waukegan radio station. On our visit to the radio station the station manager answered the students’ questions or redirected them to other sources. He took small groups into every part of the station, while other groups worked on observational drawings of the towers, satellite dishes, and the studio. Students also had the opportunity to meet and observe a DJ on the air. We included parents by sharing surveys, sending a letter about our project, and inviting them on our field trip. The students represented their learning through drawings, a diorama, posters, and creating a broadcast script and a mock studio in the classroom.
Phase Three	<i>Concluding the Project</i> The culminating event included shared time to present each group’s report and projects. The students displayed their projects in our school lobby during the last two weeks of May and shared their Radio Project with parents at the Second Grade Family Math Night.

Comments

I learned that my students have a good idea of what they want to learn and how they want to learn it. I learned that I was able to give the authority to the students to become involved and more self directed in their own learning. I was pleased with the way that many of my students became involved and self-directed. The topic they chose was of great interest to them. I think they would have benefited more from trips to other stations or a recording studio. I enjoyed the experience and saw that teaching using the project approach increased student drive and interest. I would encourage other teachers to utilize the project approach in their teaching.



Time One Web

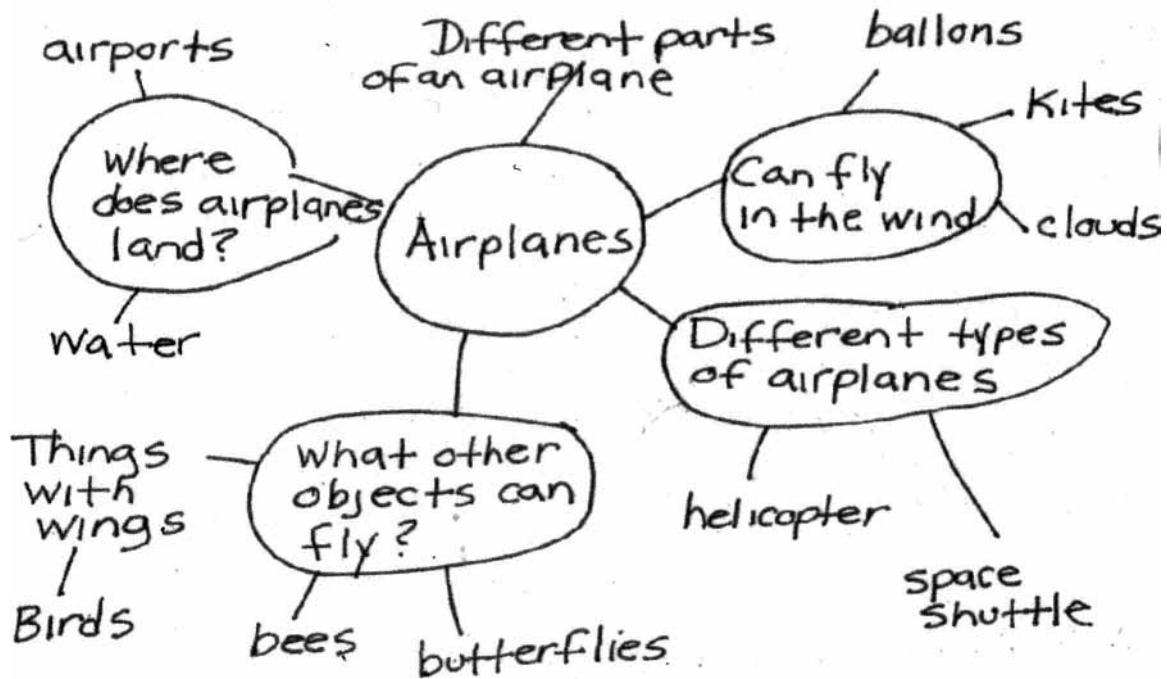


Time Two Web

Airplanes A project by children 18 months – 9 years old Sun Children's Home, Childcare, Bellwood, Illinois Length of Project: 2 months Teachers: Faith Arnold and Danisha Crawford Participated in Program: 2007 – 2008	
Phase One	<i>Beginning the Project</i> Our childcare facility is located 14 miles from O'Hare International Airport and ½ mile from the interstate. During outdoor play, children frequently watch airplanes and a traffic news helicopter coming and going from the airport. We held a brainstorming session with the children to determine their potential interest in airplanes as a project topic. At this time, they expressed their knowledge and experiences with airplanes while we recorded their responses in a journal. Some of their questions included: "How fast does an airplane travel during take off?" "What is the tail of the airplane used for?" "Can we get on an airplane?"
Phase Two	<i>Developing the Project</i> We began our investigation by reading books and watching videos about different types of airplanes. Airplanes other than passenger planes, the ones children were more familiar with, were of great interest to the children. Parents provided field trip suggestions, including the idea of visiting colleges with aviation programs. We made a field site visit to Midway Airport where a pilot provided a tour of a private airplane. We learned that airplanes have control panels similar to a television screen and that a control stick can be used to steer. The pilot described differences between airplanes and helicopters. While developing this project, the children made several drawings, clay sculptures and paintings with different tools. All of the children enjoyed the process of exploring new and different art materials, especially the eldest child in the group, a 9-year-old boy.
Phase Three	<i>Concluding the Project</i> The conclusion of the project was an exhibit of the children's artwork at Kohl Children's Museum. Children and parents were invited to the exhibit.

Comments

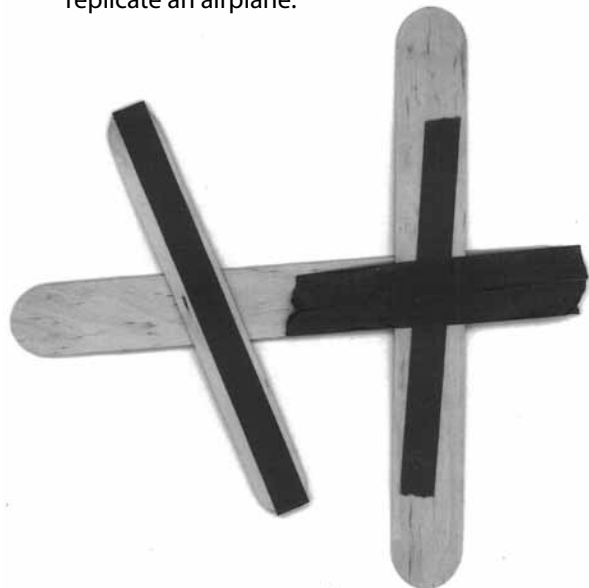
We discovered that children were more intrigued by the different types of airplanes than how airplanes worked. I was convinced that our airport visit would be the highlight of this project; however, upon leaving Midway Airport, the children expressed disappointment at not having boarded a passenger jet. Also, the most valuable lesson I learned is that timing is an important factor. The children were not as focused on the project as expected due to their regular summer program activities, including bowling, gymnastics, swimming and other field trips.



▲ Children's first web

▼ Children used tape and large craft sticks to replicate an airplane.

▼ Children molded and painted clay airplanes.



Dogs A project by children 1 – 12 years old Our Little Playland Family Childcare, Hillside, Illinois Length of Project: 2½ months Teacher: Mrs. Alice Dixon-Zollicoffer Participated in Program: 2008 – 2009	
Phase One	<i>Beginning the Project</i> My daycare children would get excited every time one of them saw a dog or puppy walking by with its owner. I would hear, “Guys, look!” or “Mrs. Alice, a dog!” Running to the door they would go. I was considering gardening or butterflies for a project topic. When I told the children about these project topics, they didn’t seem interested at all. Then, two days later, one of the girls said she was going to get a Yorkie puppy for her birthday. A three-year-old asked, “What is a Yorkie puppy?” We gave him a description of a Yorkie and then another child said, “We are getting a dog if my mom lets us.” That was when I got my “ah” moment.
Phase Two	<i>Developing the Project</i> I began our investigation by asking the children questions. First, “Does anyone know what a dog is?” I got interesting answers! Next, each child was given a clipboard with paper and pencil, and I asked them to draw a dog without looking at any pictures or getting any clues. We visited a pet store to see what kinds of foods and other items there are for dogs. The children asked the staff questions. On our library day, I asked the children to find books about dogs; they found a lot and were excited to hear the different dog stories. We also played the game, “Doggie Pattern,” where the children separate dogs by color or breed and put them in a pattern. We visited <i>Pet Vet</i> at Kohl Children’s Museum. The children all enjoyed pretending to be a vet!
Phase Three	<i>Concluding the Project</i> We closed the project with painting a dog model made from clay. We also did a “My Favorite Dog” poster. Each child was able to bring in a picture of his or her favorite dog and to name that dog. Parents helped children find different breeds of dogs in magazines, newspapers, and the internet. The community was great as well. After I told neighbors about our dog project, whenever we saw them walking with their dogs, they would talk to the children and let them pat their dog (if it was a child-friendly dog). The children learned a lot about different dog breeds, how to bathe and care for dogs, and they learned that dogs have feelings too.

Comments

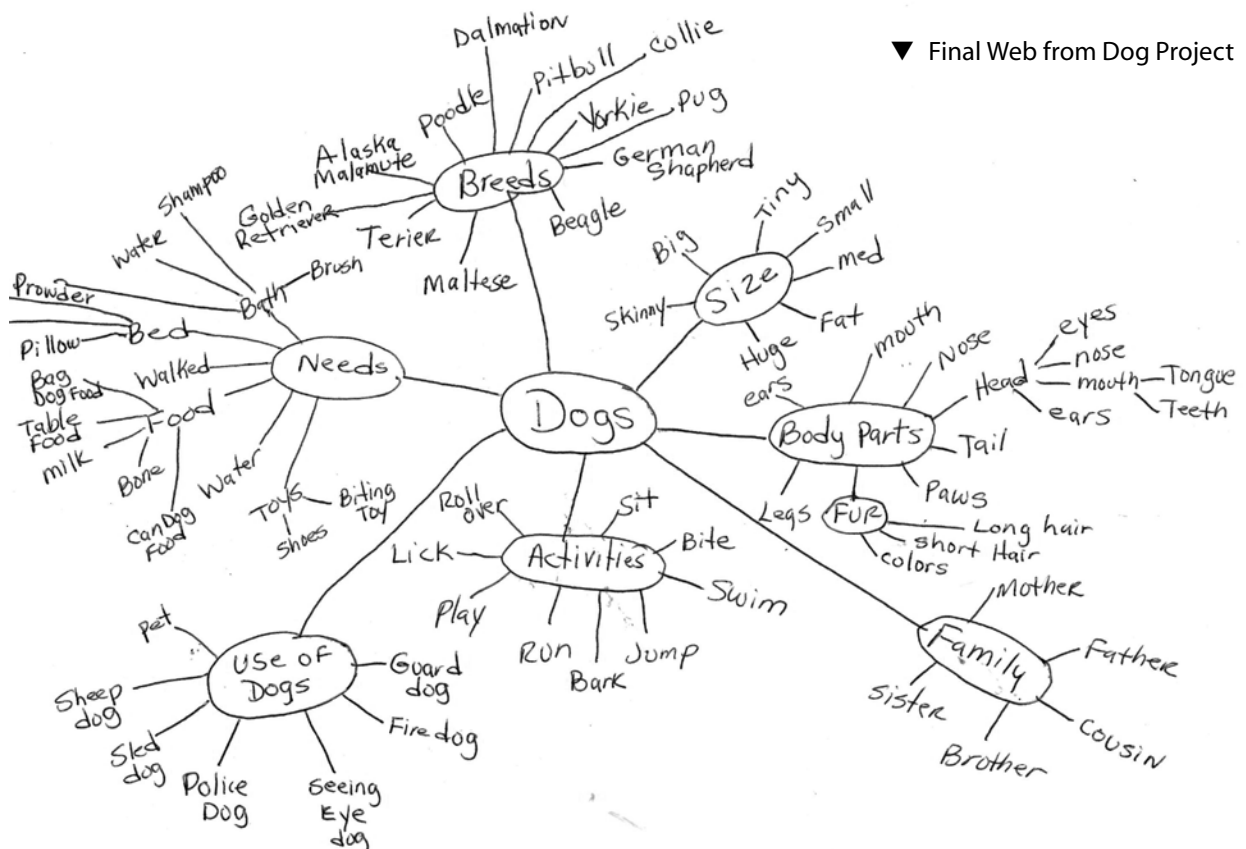
I feel this project went very well. The topic was great. I feel really good about my project on dogs. If I could change anything, it would be to take the children to visit a vet. That would have given them more information about a dog's doctor. I wouldn't change anything else; I had fun!



▲ Children worked together to create and paint a model of a dog.



▲ Children went on a site visit to a pet store to touch and see different types of dogs.



Grocery Store Project A project by children 25 months – 10 years old Beyond Your Dreams Daycare, Gurnee, Illinois Length of Project: 2 months Teachers: Alicia Falls, Norma Herrejon, and Alyssa Ashley Participated in Program: 2008 – 2009	
Phase One	<i>Beginning the Project</i> Our project initially began as a gardening project; however, after a few weeks, the group lost interest in growing things and became more interested in the fruits and vegetables they had learned about while on a field trip to the local grocery store. We switched gears. I asked the children what they liked most about their visit to the grocery store and what they would like to know more about. They came up with many questions for investigation. I called Dominick's to see if they would be willing to give us another tour. They were delighted to have the children visit again.
Phase Two	<i>Developing the Project</i> We created a web to discover what the children were interested in learning about. During the first week of the project, we explored many books on grocery stores, fruits, and vegetables. We visited Dominick's grocery store as our focused field trip. Our field trip expert reviewed the food pyramid with the children. She also gave us a tour of the entire grocery store. The children tasted food from each of the different departments and also worked the cash register. The children were amazed at the amount of sugar that is in cereal. Upon return from our trip, everyone drew pictures of their favorite food. We also discussed the food pyramid more in depth. Using the cash register sparked the children's interest in money. Using real money, the children learned to identify coins as well as the value of each. They also learned about new fruits and vegetables. Each child brought in a fruit and a vegetable they were not familiar with. We researched each one. Afterwards, we tasted each fruit and made soup using every vegetable. We involved parents by inviting them on the focused field trip as well as to the family celebration at Kohl Children's Museum. The parents also contributed food containers for the grocery store we planned to build in our classroom culminating project.
Phase Three	<i>Concluding the Project</i> As a culminating project, we transformed the daycare into a grocery store. The children stocked the shelves with the many empty food containers they brought in from home. They made all the signs and determined what each item would cost. They also made a shopping cart, using cardboard. Children took turns being cashier and bagger.

Comments

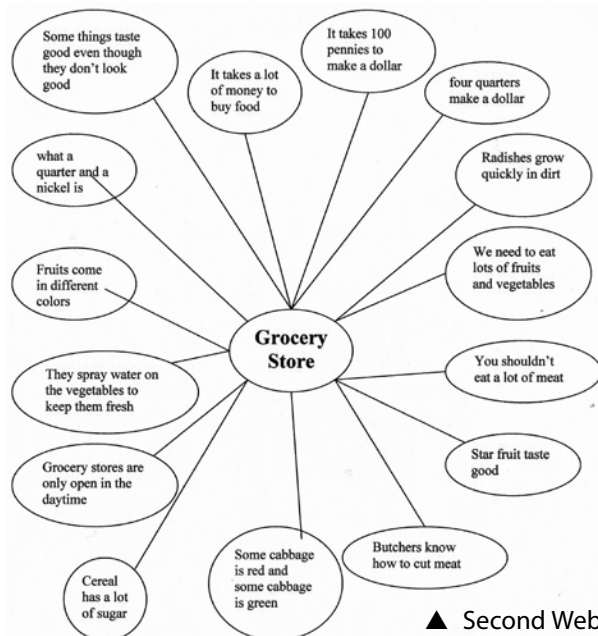
This topic idea really came from the children. I thought gardening would be their interest, but I was wrong. This was my first project, but not my last. We met over 40 Illinois Early Learning Standards doing this project. The most meaningful part for me was constructing the shopping cart because the children worked together as a team. Brain-storming how they would get the legs to stay on the box was most impressive! As I reflect back, when we do our next project, I plan to do more journaling. I wish I had recorded some of the conversations that were going on during the construction of the shopping cart.



▲ Children decided to create a grocery store in a section of the daycare. They role played as shoppers and different types of jobs at the grocery store.



▲ Children wrote lists of their favorite foods.



▲ Children investigated different types of fruit and vegetables.

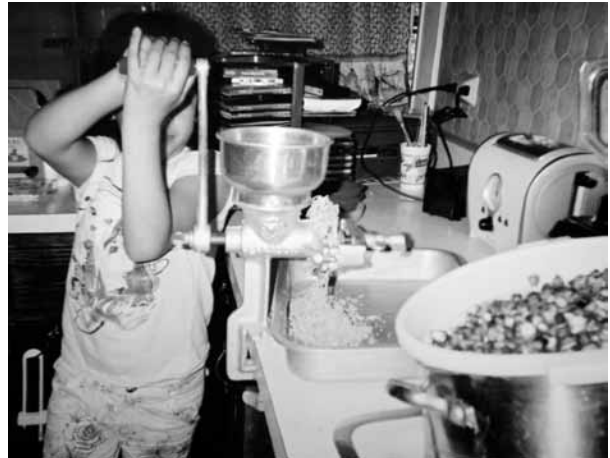
Learning About Corn Project A project by children 2 – 8 years old Imelda's Home Daycare, Chicago, Illinois Length of Project: 40 days Teacher: Imelda Rodriguez Participated in Program: 2008 – 2009	
Phase One	<i>Beginning the Project</i> One afternoon I was making <i>gorditas</i>; they are like tortillas but thicker. The children were eating while I was cooking in the kitchen, and they started to ask questions about what I was making. They asked, "How were they made?" "Why are they yellow-looking?" I answered that they were made from corn. They asked more questions about corn, and I thought that it would be a good idea and a good experience for them to learn about corn since they were really interested.
Phase Two	<i>Developing the Project</i> We took field trips to the library to investigate corn. We needed to learn how to plant the seed and what it needed to keep growing. We also read books and learned the names of corn plant parts. While reading, we learned that corn is an international product and different countries consume it differently, depending upon their customs. We learned that the seed is used to make different types of food and the leaves are used to wrap tamales and to make crafts. We had a field trip to the grocery store and shopped for fresh corn and other products made from corn. The children shared their experiences of how they eat corn at home. One student shared a story about how he and his father planted corn while visiting Mexico.
Phase Three	<i>Concluding the Project</i> The children enjoyed every corn activity. They followed and enjoyed recipes related to corn. We made and ate gorditas from raw to cooked corn. We ate chips and tamales. We drew corn and cornfields. We planted corn plants and sang Spanish songs about "tamales and tortillitas." The project surprised me as it progressed. I thought that it would be a little hard for the children to understand or that they might lose interest as the days went by. To my surprise, they kept motivated and interested. I think this was a good topic to learn about because corn is an international vegetable. If I was to do this project again, I don't think I would change anything. I think that things turned out really well, since I know that the information stayed with them.

Comments

The easiest thing about the project was getting the kids interested in the project. From the beginning they had many questions, and it was just a matter of time before we figured out how to answer all of them. The hardest task was waiting for the appropriate time to begin planting corn. Planting allowed the kids to do the project hands-on, as opposed to just listening to a story.



▲ Children explored different types of corn kernels.

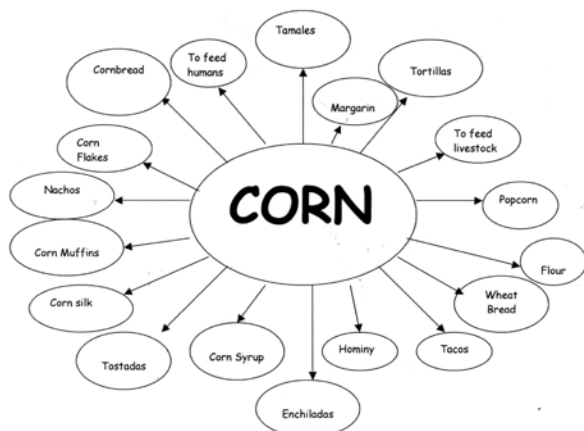


▲ Children learned how to grind corn.

► Created drawings of corn plants.



▼ Web about corn



Life on a Farm A project by children 16 months – 5 years old Never Ending Childcare, Inc., Gages Lake, Illinois Length of Project: 3 months Teacher: Patricya Merchant Participated in Program: 2008 – 2009	
Phase One	<i>Beginning the Project</i> We chose this topic because we wanted to know why the farms around us were so different. It all started when Emily wanted to know, “Why the farmer has all this corn and no animals?” “Why Miss Shirley has all horses and nothing else?” Questions to investigate also included: “Why do cows give milk?” “Do horses poop?” “How many different farms are there?” “What kinds of animals live on farms?” “How does a farmer grow food?” I did not expect this project to hold the younger children’s interest; I expected them to learn about farms.
Phase Two	<i>Developing the Project</i> We began our investigation at the Grayslake Feed Store where we spoke to several farmers about their farms and what crops they grew. We decided to plant our own vegetable garden. The children drew a map of the garden and what seeds to plant. We grew corn, tomatoes, green beans, wheat, cucumbers, and watermelon. The children all helped to construct a carrot frame. We planted the carrots so the children could watch the carrots grow in the frame. We visited several farms. Our first visit was to Apple Holler. Farmer Bob showed us 75 varieties of apple trees and took us on a hayride through the orchard. We learned that bees are very important to the apple farm. We went to the store and purchased a bag of apples and made applesauce and homemade apple butter. Our next adventure led us to Golden Oakes Dairy Farm in Wauconda, IL. Here we learned all about cows. We also made ice cream for snack. We next visited Green Meadows Petting Farm where we handled chickens, fed goats, and milked a cow. We also rode ponies and played with kittens. We visited the Dynasty Lippizan Farms where we watched horses, fed them, and after brushing them, were rewarded with a ride for all of our hard work.
Phase Three	<i>Concluding the Project</i> Our final adventure took us to Wagner Farm in Glenview. Here we saw animals, learned to shuck corn and feed chickens. We learned how to candle eggs and grade them. There was a pretend cow that we “milked” – it was so much fun! Milking the pretend cow was much easier than the real cow! We made butter and ate it. We read books about the farm. We played “farmer” and sold plastic vegetables at our store. We made a cow out of cardboard boxes and butcher block paper. It took several weeks to complete and looks great! We learned a lot about teamwork and sharing. Our project will officially end when we harvest our garden and invite parents to lunch. Parents were provided photographs of the activities, joined us on field trips, and brought their children to day care early on trip days.

Comments

When I started the project, I went into overload. By day six, I was ready to quit! We had put in our garden and visited a dairy farm. Most of my kids are two years old—they did not understand all this high tech milking jargon. Patrick, age two, came up to me and said: “No cry, Miss Patty, I teach you about cows! Brown cows have white milk and go moo, milk makes ice cream and yogurt and tastes good. That’s all you need to know.” They were learning something! I learned that my initial expectations were out in left field. This was an excellent topic! If I were to do it again, I would limit my trips to two sites, and each site would be totally hands-on for the kids.



▲ Children constructed root view panels out of wood, plexiglass, and screws.



▲▼ Children visited a farm to explore the different types of work that is done on a farm.



▲ Drawing of child watering the garden.



Playhouse Project A project by children 3 – 12 years old Wee Are the World Home Day Care, Calumet City, Illinois Length of Project: 4 months Teachers: Patricia Twymon, Steven Twymon, and JoeAnn Hunter Participated in Program: 2008 – 2009	
Phase One	<i>Beginning the Project</i> This topic was chosen as a result of the children's interest in building and repairing in our pretend areas. On my first day of class, I was given the opportunity to walk through the museum. One of the hands-on exhibits was a house in need of repair. This is when the idea of building a playhouse started. During our circle time, I brought up several topics that might be of interest to the children. They told me right a way that this was the project they wanted to do. Our focusing events included reading books about different kinds of houses, and house building with different materials. We made a web on the very first day we decided to build a playhouse. Our first web showed the limited knowledge the children had of houses and what it took to build one.
Phase Two	<i>Developing the Project</i> <i>House Building for Children</i> is a book we found at our local library that gave us an overview of what we would need. Mr. Tony Bradley was our expert and guided and visited us twice a week; we met him in our local home improvement store. We attended a hands-on wood working class at Home Depot where the children built birdhouses. After the class, we were given a guided tour of the store and the children asked questions. Our questions remained the same throughout the project. Because some of our field site visits took place on weekends, the parents made themselves, as well as the children, available. The parents took their own children on field trips to see different structures being built. The children represented their learning in drawings, sculptures made of blocks, paper, and popsicle sticks.
Phase Three	<i>Concluding the Project</i> Once the door was in place, the children deemed the project finished. When the parents arrived, the children provided them with personal tours. They were able to tell their parents the names of things and what they were used for. Seeing a child correctly using a level that we have had in our play area for years said it all! Our word wall kept the new words the children learned fresh in their minds on a daily basis. The children learned the importance of safety when working with tools. Their vocabulary grew and their knowledge of what materials and tools are needed to build a house.

Comments

This project took on a life of its own. The playhouse was to be a 4' x 4' wood-framed floorless and windowless structure. At the children's request, the playhouse kept growing and growing. Our work had to take place outside, and it was a hot summer. The children's excitement kept this project alive. One of our children was a loner; that same child, who worked so closely with everyone else during this project, is a loner no more. It was a lot of work, but worth it!

- Children learned new words related to building a house.



- ◀ Children learned how to use different types of tools and worked together to create a playhouse.



The Summer of Cicada Adventures

A project by children 2 – 8 years old

Hand in Hand Learning Center, Glenview, Illinois

Length of Project: 4 months Teachers: Linda Kraft, Sarah Lennert, and Lauren Rust

Participated in Program: 2007 – 2008

Phase One

Beginning the Project

We decided to investigate insects because the children frequently explored the yard, looking for bugs. We worked on a web for cicadas and a web for insects.

Our focusing project was to classify big plastic bugs by using library insect books. Since we had studied insects in the past (butterflies, praying mantis, and ants) and cicadas are part of our outdoor play, the teachers directed the project toward cicadas. Our goal was to build on children's prior knowledge and skills about insects in general. We also expected the children to learn how to tell the difference between insects and to strengthen their observation skills.

Phase Two

Developing the Project

Our first investigation was a field trip to the Glenview Grove Nature Center. After an expert talked with the children about cicadas and we examined live and preserved cicadas, we made observational drawings using clipboards and felt pens. We made a second trip to the Nature Center and this time the children shared their expertise, along with their new questions, with the staff.

At our home school, the children collected piles of empty cicada shells. They watched as cicadas molted and their wings dried. They also collected different kinds of insects and made comparisons. They measured all sizes of insects, using hand magnifiers to see the differences. On their own, the children compared periodical cicadas to annual cicadas.

Parents were supportive, sharing Internet resources and encouraging children to observe and investigate the cicadas they saw at home and share their experiences with the group. One family found cicada nymphs while digging a hole for a tree, so we dug a hole and also found many cicada nymphs! We used clipboards to create observational drawings. We gathered and watched for over a half hour as a cicada emerged from its hole. Some children made cicadas from clay.

Phase Three

Concluding the Project

Our culminating event was to go to the Field Museum's "Underground Adventure" exhibit. The children were intrigued about "shrinking" to be small like insects and going "underground with the insects." They identified most of the insects at the exhibit. They also sat in the pretend cicada's large shell. They enjoyed pretending to be cicadas! One parent chaperoned the trip.

Comments

Overall, this was a good project for children to investigate. Cicadas were a large part of our everyday outside life. The topic generated interest, enthusiasm, and curiosity daily from the children, teachers and parents! Sometimes, children would take the subject down a new path, such as a side study of worms, and we encouraged their interest and exploration. It would have been helpful to have more science tools on hand for investigations. I would also use more experts from the field of study. The children seemed to most enjoy learning from the experts during our cicada adventure.



▲ Children explored and searched for cicadas in the yard.



▼▲ Observational drawings of cicadas



▲ Children engaged in dramatic play.



CHICAGO PUBLIC SCHOOLS

July 9, 2009

Ms. Sheridan Turner
Kohl Children's Museum
2100 Patriot Boulevard
Glenview, Illinois 60026

Dear Ms. Turner:

As an administrator in the Office of Early Childhood Education (OECE) of the Chicago Public Schools (CPS), I have seen firsthand the impact of the services provided by the Kohl Children's Museum. Since 2000, the Museum has collaborated with CPS to enhance classrooms with staff development for teachers and enrichment opportunities for young children at risk of academic failure and their families through the Early Childhood Connections program.

Each year we receive more than 100 applications from teachers who wish to participate in the program. This type of response from our teachers who have many other obligations and commitments is unprecedented.

Project participants have shown improvements in teaching methods and strategies, and it has become second nature for many who have contributed their projects to this book. Kohl Children's Museum's longstanding commitment to serving children in Chicago is greatly appreciated.

We look forward to a continued partnership with the Museum and the Early Childhood Connections program.

Sincerely,

Luz María Solís

LMS/tp

c: Barbara T. Bowman

OFFICE OF EARLY CHILDHOOD EDUCATION

125 SOUTH CLARK STREET, 9TH FLOOR • CHICAGO, ILLINOIS 60603 • TELEPHONE: 773/553-2010 • FAX: 773/553-2011



Appendix II

How to Create Thinkers

Judy Harris Helm Ed.D.

Our Nation's Challenges

As the events of September 11, 2001, reminded us, predicting the future is difficult, if not impossible. Our current understanding of what our children, or our nation, will face in the future is limited. We cannot predict what new knowledge, what discoveries, will be needed in medicine, environmental science, education, economics or social relations. But we do know that those who will be responsible for these new discoveries are in our classrooms today. Recent research in neuroscience has shown us that the brain and the capacity of the mind to think are shaped in large part by the thinking that it does. The intellectual capacity (the knowledge, skills, and dispositions) of the decision makers of our future, for a large part, are determined by the experiences we provide them today.

When we observe the teachers whose projects fill this book, we see the impact they can have on the development of not only their children's knowledge and skills but also their curiosity and intellectual dispositions. As Lilian Katz explains, "what teachers do with children all day" can build a solid foundation for the intellectual work our society will need in the future. Teachers can have an enormous impact on the capability of today's children to face their own challenges tomorrow.

Principles for the Discovery of New Knowledge

In a hospital waiting room one day I was browsing through a copy of Science magazine, a publication for scientific researchers, where I came across an editorial by two research physicians, David Paydarfar and William S. Schwartz¹. They shared their ideas about the processes of creating new knowledge by "asking the right question, pursuing the unknown, making discoveries" and about "boosting the rate and magnitude of discoveries" (Paydarfar & Schwartz, 2001). Their analysis resulted in an "**algorithm for discovery**," five simple principles for creating new knowledge and for creating deep thinkers. What struck me was the similarity between their principles, their algorithm for discovery, which I quote below, and the experiences we advocate for young children when they are engaged in good project work.

1. Slow down to explore. Discovery is facilitated by an unhurried attitude. We favor a relaxed yet attentive and prepared state of mind that is free of the checklists, deadlines, and other exigencies of the workday schedule (p.13).

In the project approach, teachers are encouraged to follow, support, and extend children's interest for as long as they remain reasonably curious about the topic and are developing more questions. Instead of learning about a particular piece of information or knowledge for a week (much of it "presented" by the teacher) then moving on to the next piece, children are encouraged to come up with a list of further questions and then proceed to find the answers. Projects evolve as the children progress and their questions become more focused and in-depth. Projects often last 4-6 weeks or even longer.

2. Read, but not too much. It is important to master what others have already written. Published works are the forum for scientific discourse and embody the accumulated experience of the research community. But the influence of experts can be powerful and might quash a nascent idea before it can take root (p.13).

We advocate that young children read books and listen to stories related to their topics to develop background knowledge and build vocabulary; but then we encourage them to engage in firsthand exploration as a way of helping them to learn that they can often find answers to their questions directly, without using books. They learn that knowledge is not only what someone else has already said or done but that they can construct their own knowledge. Literacy skills then become valuable tools for thinking and for checking their thinking with that of others and for representing their findings with words that either they write or dictate to someone who can write for them. In these ways, children create their own books in which they represent their own processing of what they have learned.

¹ David Paydarfar and William J. Schwartz are in the Department of Neurology, University of Massachusetts Medical School. Their Algorithm for Discovery was adapted from lectures given at the University of North Carolina and the University of California, Paydarfar, D., & Schwartz, W. J. (2001). *An algorithm for discovery. Science, 292(5514), 13.*

3. Pursue quality for its own sake. Time spent refining methods and design is almost always rewarded. Rigorous attention to such details helps to avert the premature rejection or acceptance of hypotheses. Sometimes, in the process of perfecting one's approach, unexpected discoveries can be made (p.13).

During good project work children are encouraged to review their own work and to evaluate their own thinking. For example, we encourage children to sketch and draw relevant objects from observations frequently. We then encourage them to look at the object sketched or drawn and to re-draw it as they learn more about it. Throughout the project, the teacher collects children's successive attempts at drawing, building, or constructing and encourages them to examine the sequence and to talk about additions and changes to the drawings or constructions from the first one to the successive ones. The teacher also engages the children in discussions of how the drawings changed and what they did differently or wanted to do better, and what they think remains to be learned. Children also are encouraged to help each other by giving advice and suggestions on what to add to their representations or how they might refine their questions.

4. Look at the raw data. There is no substitute for viewing the data at first hand. Take a seat at the bedside and interview the patient yourself; watch the oscilloscope trace; inspect the gel while still wet (p. 13).

We encourage children to develop the habit of gathering data by using interviews, surveys, and tally sheets to record their observations (even 3-year olds can do tally sheets). In other words, projects provide contexts in which young children develop their disposition to seek information for themselves, and then to record it and process it. For example, while studying farm machinery, children found out how many wheels each machine had by counting them and making tally graphs.

5. Cultivate smart friends. Sharing with a buddy can sharpen critical thinking and spark new insights (p. 13).

Projects are collaborative experiences - usually children work in groups based on their interests. They learn to work together towards a goal and to appreciate the unique gifts of each of the children in their class.

Paydarfar and Schwartz (2001) hoped that their essay could "serve as an inspiration for reclaiming the process of discovery and making it a part of the daily routine" (p.13).

Preparing children for the future

In participating in Kohl Children's Museum of Greater Chicago's Early Childhood Connections project as a consultant and trainer, I hope that teachers will be inspired to do good project work with children. It is in the best interest of this nation that all children, regardless of what is happening in their lives today, develop academic skills, intellectual dispositions, and confidence in their own ability to discover new knowledge. I hope that teachers will be inspired to provide rich, meaningful project work where children have an opportunity to think, create, problem solve and work with others. If they can learn to do that well, it may be the greatest preparation we can give them for the challenges they will face in our complex future.

Parts of this article are adapted from Helm, J. & Beneke, S. *The Power of Projects: Meeting Contemporary Challenges in Early Childhood Classrooms – Strategies and Solutions*. Teachers College Press, Columbia University, New York, 2002.

Appendix III

Resources on the Project Approach

Compiled by Judy Harris Helm & Rebecca Wilson, Best Practices, Inc.

Getting Started: Books that provide rationale and guide implementation

- Helm, J., and Katz, L. (2000) *Young Investigators: The Project Approach in the Early Years*. New York: Teachers College Press. Provides a step by step guide for implementing projects with children who are not yet proficient in reading and writing – toddlers through first grade. Includes a planning journal for recording guiding planning and also for documentation. A good first book for teachers of children in the early years. Video: *A Children's Journey: Investigating the Fire Truck* encourages teachers to try projects by showing a simple project from beginning to end in a preschool classroom.
- Katz, L., and Chard, S. (2000) *Engaging Children's Minds: The Project Approach. Second Edition*, Norwood, NJ, Ablex Publishing Corporation. Updated second edition of *the classic* on projects, provides rationale for project work and many project descriptions.
- Helm, J., and Beneke, S. Ed. (2002) *The Power of Projects: Meeting Contemporary Challenges in Early Childhood Classrooms, Strategies and Solutions*. New York: Teachers College Press. This edited book shows how good project work can help teachers meet challenges and also provides strategies for maximizing project work for reducing effects of poverty, helping children learn a second language, supporting children with special needs, incorporating standards, and moving children towards literacy. Each chapter has a project from a classroom which illustrates the strategies recommended.
- Chard, S. (1998) *The Project Approach: A Practical Guide 1*, New York, NY: Scholastic Inc.
- Chard, S. (1998) *The Project Approach: A Practical Guide 2*, New York, NY: Scholastic Inc.
- These two books answer practical questions about implementing project work in primary and elementary classrooms. Excellent resource for incorporating curriculum goals.
- Helm, J., Berg, S., and Scranton, P. (2004) *Teaching Your Child to Love Learning: A Guide to Doing Projects at Home*. New York: Teachers College Press. Written for parents who are readers, this book explains the importance of active, engaged meaningful learning experiences and how to do projects at home. Especially helpful also for home child care providers or home schooling.
- Helm, J., Berg, S., Scranton, P., and Wilson, R. (2005) *Teaching Parents to Do Projects at Home: A Tool Kit for Parent Educators*. New York: Teachers College Press. This book and CD can be used as an accompaniment to *Teaching Your Child to Love Learning* for book study groups or as a stand alone workshop series for parent education programs. The CD provides everything needed to conduct a series of workshops including PowerPoint presentations, handouts and planning journals in English and Spanish. Information is provided for adaptation for family literacy programs, home visiting programs, Head Start programs and library programs.

Other Ways of Doing Projects: There are other ways of doing projects with young children. These books explore the projects of the schools of Reggio Emilia, Italy

- Hendricks, J.(Ed.) (1996) *First Steps Toward Teaching the Reggio Way*. Upper Saddle River, NJ: Prentice Hall.
- Edwards, C., Gandini, L., and Forman, G. (1998) *The Hundred Languages of Children, 2nd Edition*. Norwood, NJ, Ablex Publishing Corporation.

Learning from Others: *The best way to learn how to guide projects is to do it with children. The next best way is to study the work of other teachers and the projects of their children. These publications provide many project descriptions. These resources can be accessed through the **Early Childhood and Parenting (ECAP) Collaborative** at the University of Illinois. <http://ecap.crc.uiuc.edu/>*

Beneke, S. (1998) *Rearview Mirror: Reflections on a Preschool Car Project*. An excellent example of an in-depth project in an American school. Shows the growth of one child and a wonderful example of a social problem solving sequence. Good for discussion of teacher decision-making during project work. Video: A video is also available which also has Lilian Katz and Sallee Beneke discussing the project approach.

Helm, J. Ed. (1996, 1998, 2000, 2002) *The Project Catalogs*. These catalogs are issued in conjunction with major project exhibits at the NAEYC annual conference. Included in each catalog are the descriptions of every project exhibited and articles about implementation issues. Some of these are on the ECAP site and can be printed, others are still for sale.

Illinois Early Learning Project. Classroom videos filmed at child care centers at a public university and at a community college that used the project approach as part of their curricula. <http://illinoisearlylearning.org/videos/>

Listserv – The Project Approach Listserv discussion group can be accessed from this site. <http://ecap.crc.uiuc.edu/listserv/projec-l.html>

The Project Approach Website operated by Sylvia Chard. <http://www.projectapproach.org/>

ECRP – *Early Childhood Research and Practice* – Online Journal. This online journal has articles of good project work from diverse settings. Teachers can also be encouraged to submit articles. ECRP is now available in Spanish. Articles may be printed or saved and shared with staff and during training experiences. <http://ecrp.uiuc.edu/>

Learning How to Document: *An important part of project work is the documentation of children's work. These publications are helpful for learning what to observe and collect and how to share it.*

Helm, J., Beneke, S., and Steinheimer, K. (2007) *Documenting Young Children's Work: Windows on Learning*. New York: Teachers College Press. A basic introduction to the process of documentation including portfolio use – new edition.

Helm, J., and Helm, A. (2006) *Building Support for Your School*, New York: Teachers College Press. How to use documentation to share the power of your project work with others.

Appendix IV

List of Contributing Teachers

Arnold, Faith , Sun Children's Home, Childcare, Bellwood, IL, 84	Lanier, Mo , Cherished Children Early Learning Center, Mundelein, IL, 2
Ashley, Alyssa , Beyond Your Dreams Daycare, Gurnee, IL, 88	Lennert, Sarah , Hand in Hand Learning Center, Glenview, IL, 96
Barrera, Maretzy , De la Cruz School, Chicago, IL, 14	Loechelt, Lauren , Paul K. Kennedy Child Care Center, North Chicago, IL, 4
Bell, Anthony , Laurance Armour Day School, Chicago, IL, 6, 8	Lopardo, Cyndi , Onahan School, Chicago, IL, 32, 34
Burton, DeCarla , Ms. "D's" Jump Start Family Childcare, Chicago, IL, 24	Mata, Elvira , Laurance Armour Day School, Chicago, IL, 6, 8
Butcher, Debbie , Evanston Day Nursery, Evanston, IL, 38	McClinton, Elizabeth , Paul K. Kennedy Child Care Center, North Chicago, IL, 36
Carrillo, L. , Belmont-Cragin Early Childhood Center, Chicago, IL, 20	McReynolds, Karla , Stockton School, Chicago, IL, 54
Cervantes-Garza, Mrs. , Von Humboldt Child Parent Center, Chicago, IL, 50	Merchant, Patricya , Never Ending Childcare, Inc., Gages Lake, IL, 92
Chavez, Donna , Paul K. Kennedy Child Care Center, North Chicago, IL, 4	Ocasio, Wanda , Goethe Elementary School, Chicago, IL, 30
Crawford, Danisha , Sun Children's Home, Childcare, Bellwood, IL, 84	O'Hearn, Becky , Farnsworth School, Chicago, IL, 56
Dixon-Zollicoffer, Alice , Our Little Playland Family Childcare, Hillside, IL, 86	Orozco, Susan , New Field School, Chicago, IL, 66
Dressler, Cynthia , John Hay Academy, Chicago, IL, 28, 40	Pace, Lolita , Ms. "D's" Jump Start Family Childcare, Chicago, IL, 24
DuBois, Mary Bell , George Manierre School, Chicago, IL, 73	Perez, Carmen , John Hay Academy, Chicago, IL, 28
Enright, Pamela , Yeager School, North Chicago, IL, 42	Quiroz, Alicia , Willard School, Evanston, IL, 72
Falls, Alicia , Beyond Your Dreams Daycare, Gurnee, IL, 88	Ramirez, Nicole , Child Care Center of Evanston, Evanston, IL, 22
Fernandez, Mrs. , De la Cruz School, Chicago, IL, 14	Rappelt, Ann , Child Care Center of Evanston, Evanston, IL, 22
Fielding, A. , Belmont-Cragin Early Childhood Center, Chicago, IL, 20	Rodriguez, Imelda , Imelda's Home Daycare, Chicago, IL, 90
Gallegos, Alicia , Walt Whitman Elementary, Wheeling, IL, 80	Rojas, Jaime , Little Fort School, Waukegan, IL, 78
Gawlick, Amy , Solomon School, Chicago, IL, 60	Rust, Lauren , Hand in Hand Learning Center, Glenview, IL, 96
Gilfillian, Jacqueline , McPherson School, Chicago, IL, 26	Ryan, Laura , Farnsworth School, Chicago, IL, 56
Gordon, Ellen , Cooke Magnet School, Waukegan, IL, 76	Santillan, Sandra , Onahan School, Chicago, IL, 32, 34
Grimes, Melody , South Loop School, Chicago, IL, 70	Schiavinato-Manley, Roberta , Walt Whitman School, Wheeling, IL, 62
Guerrero, Annette , McKinley Park Elementary School, Chicago, IL, 10	Scurry, Deana , Child Care Center of Evanston, Evanston, IL, 48
Guzman, Mrs. , McPherson School, Chicago, IL, 53	Serrano-Melendez, Yadira , Paul K. Kennedy Child Care Center, North Chicago, IL, 36
Healy, Barbara , H. B. Stowe Academy, Chicago, IL, 52	Shields, Laurie , H.R. McCall School, Waukegan, IL, 74
Herrejon, Norma , Beyond Your Dreams Daycare, Gurnee, IL, 88	Smith, Bethanie , McKinley Park Elementary School, Chicago, IL, 10
Herrera, Gaby , Cherished Children, Calumet City, IL, 12	Southard, Sharon , Cherished Children Early Learning Center, Mundelein, IL, 2
Herrera, Lisbeth , New Field School, Chicago, IL, 16	Stone, Dionne , Paul K. Kennedy Child Care Center, North Chicago, IL, 36
Huber, Julie , H.R. McCall School, Waukegan, IL, 74	Timms, Erica , Paul K. Kennedy Child Care Center, North Chicago, IL, 4
Hunter, JoeAnn , Wee Are the World Home Day Care, Calumet City, IL, 94	Torres, Maria , Willard School, Evanston, IL, 72
Jones, Annie , Laurance Armour Day School, Chicago, IL, 6, 8	Torres, Rosaura , McPherson School, Chicago, IL, 53
Jones, Connie , Paul K. Kennedy Child Care Center, North Chicago, IL, 4	Twymon, Patricia , Wee Are the World Home Day Care, Calumet City, IL, 94
Kalousek, J. , Belmont-Cragin Early Childhood Center, Chicago, IL, 20	Twymon, Steven , Wee Are the World Home Day Care, Calumet City, IL, 94
Kelley, Virginia , Yeager School, North Chicago, IL, 58	Verstraete, Krystal , James G. Blaine Elementary, Chicago, IL, 64
Klein, Alanda , Cherished Children, Calumet City, IL, 12	Wagner, Kristy , Cherished Children Early Learning Center, Mundelein, IL, 46
Klinger, Karen , Cherished Children Early Learning Center, Mundelein, IL, 46	Webster, DeShonda , Laurance Armour Day School, Chicago, IL, 8
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