

The Bank One Project

A Children's Investigation of Block Construction
and the Tallest Building in Indianapolis



Warren Early Childhood Center
2007-2008

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and the Tallest Building in Indianapolis

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Protagonists

Children (ages 4-5)

Sydnee
Emma
Jaden
Brayden
Alice
Emily
Liam
Nicholas
Rachel
Drew
Joshua
Kaleb
Rayann
Delaney
Garrett
Daphne
Jacob
Jadan
Jacqueline
Lili
Collin
Jonathan

Teachers

Abby Bucher
Tricia Newman

Parent

Nancy Rogers

Editors

Abby Bucher
Ron Smith

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MSD of Warren Township

Context

The Warren Early Childhood Center is located on the east side of Indianapolis, Indiana. The Center is a public school operating under the auspices of the MSD of Warren Township. The Center offers services for all kinds of young children ranging from children with special needs to children with advanced skills as well as children across the socioeconomic spectrum.

Staff members at the Warren Early Childhood Center are influenced by the theories and the work of many theorists including Maria Montessori, John Dewey, Lev

Vygotsky, Loris Malaguzzi, Jean Piaget, Lilian Katz and Howard Gardner. A primary focus of our study for the past several years has been project-based learning and the types of environments that best support project work. This book is an example of project documentation that we use to study how children learn. The focus of the book is the story of a learning project or "investigation" undertaken by a group of four and five-year-old children that attended school three mornings each week during the 2007-2008 school year.

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“...**Listening** as a premise for any learning relationship- learning that is determined by the “learning subject” and takes shape in his or her mind through action and reflection, and becomes knowledge and skill through representation and exchange.”

Carlina Rinaldi

Making Learning Visible

Observations



Alice plays in her "toy house."



The Bank One Project began in the block area where Mrs. Bucher noticed during her observations of the children that many were spending much of their free time. In response to their enthusiasm for block construction, she chose to open the block area each day to facilitate opportunities for further observation and to see if the children would sustain a strong interest in building structures. The children demonstrated excitement as they built with blocks as well as a high level of concentration, so she decided to see if the children were interested in taking this investigation of block play further.

F.2.10
F.311

Nicholas' "tall building"



Liam's Empire State Building





F.5.7
F.1.2

Block play, like many facets of children's play and learning, seems to develop in stages. Early block play is often marked by road building with low structures. Although there are no road building examples from this project, there were numerous examples of building techniques that often follow road building. Those included the construction of enclosed structures and the use of bridge building techniques where two or more support columns are used to support the structure above.

This project, however, was all about building tall structures. The children revelled in building structures that were taller than themselves, just as you see Jadan (to the right) doing as he stands on his tip toes to reach high enough to build his tower taller.



When does a project become a project?



The block structure pictured above is an example of the bridge building technique where four support columns were used.

F.2.3
F.3.3

“...among the first questions we should ask ourselves as teachers and educators are these: How can we help children find the meaning of what they do, what they encounter, what they experience? And how can we do this for ourselves?”

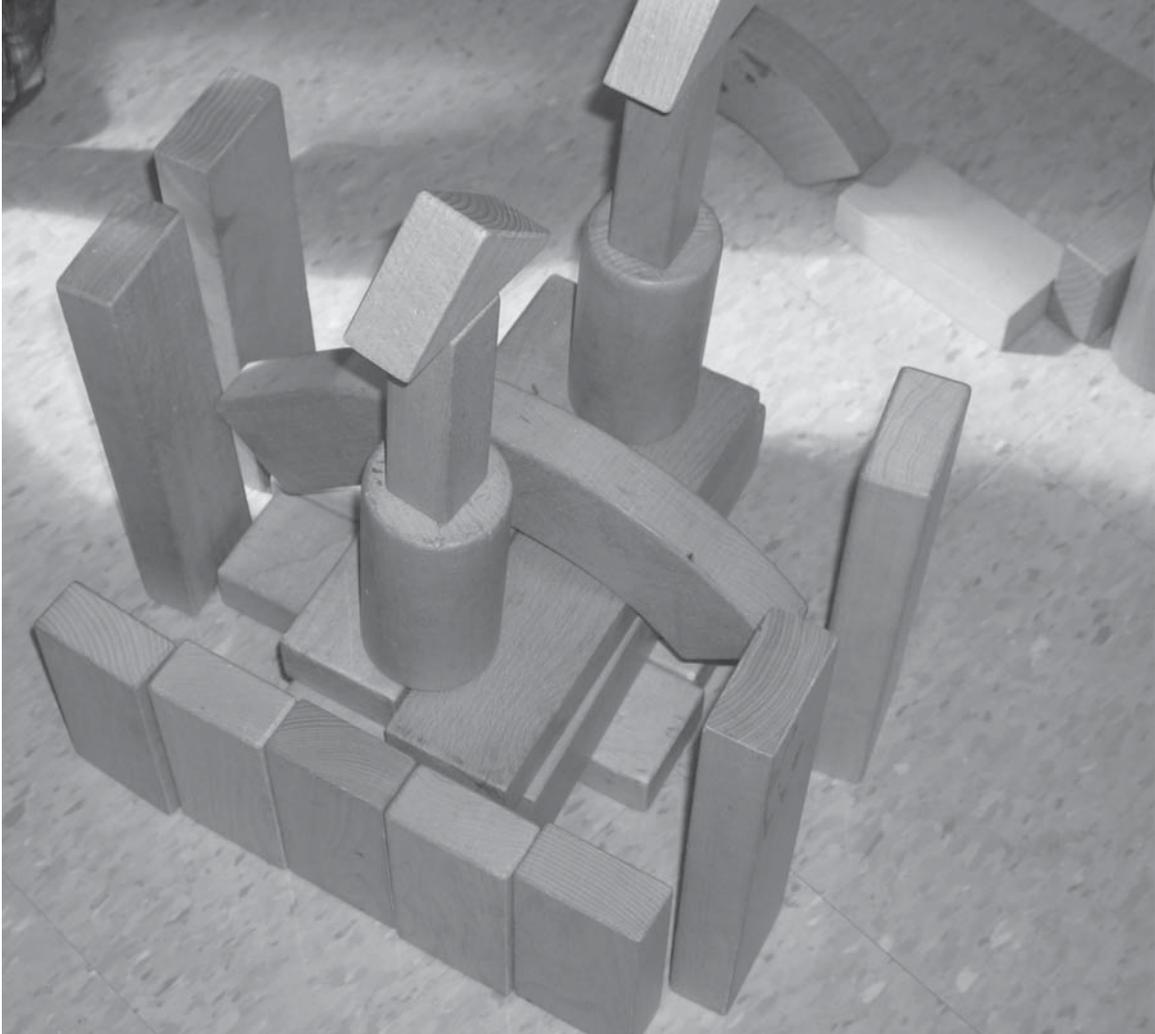
Carlina Rinaldi

In Dialogue with Reggio Emilia: Listening, Researching and Learning

Provocations



If a teacher is unsure, how can he/she discover if the children are interested enough to pursue the topic further?



In an effort to further stimulate interest in block building and to challenge students to expand their play to include more elaborate structures, Mrs. Bucher placed photographs of buildings in the block area. The children quickly noticed the photographs and through observation, Mrs. Bucher noticed that new architectural elements from the photographs began to appear in the children's structures.

Rachel and Sydnee were inspired to attempt a structure with multiple arches.



What

“A building is when it’s high, tall, and has lots of windows.” –Sydnee

“It’s somewhere when your mom and dad go on vacation that’s where they go.” –Emma

is

“Go to a bathroom, go all the way down the elevator, and the pool is inside” –Brayden

“A building is the Eiffel Tower in Paris, France.” –Rachel

a

“A building is where my mommy works downtown; (has) lots of shiny windows and doors. Mom works in her office.” –Drew

“a place to live, to look at, sleep” –Joshua

building?

“a big castle” -Kaleb

How does a teacher decide if the topic is worthy of further investment of time and resources?

F.2.10



When does a project become a project? If a teacher is unsure, how can he/she discover if the children are interested enough to pursue the topic further? How does a teacher decide if the topic is worthy of further investment of time and resources? These are a few of the important questions teachers might ask themselves before committing fully to a project topic.

The identification of a sustained interest in a particular topic or a favored activity can often serve as a clue that a project may be starting, but other issues must also be considered. A teacher might wish to evaluate the types of resources available as well as the potential for both skill development and development of intellectual dispositions (curiosity, persistence...) offered by the topic. Mrs. Bucher decided this emerging topic was worthy of further investigation and the children responded positively toward provocations.

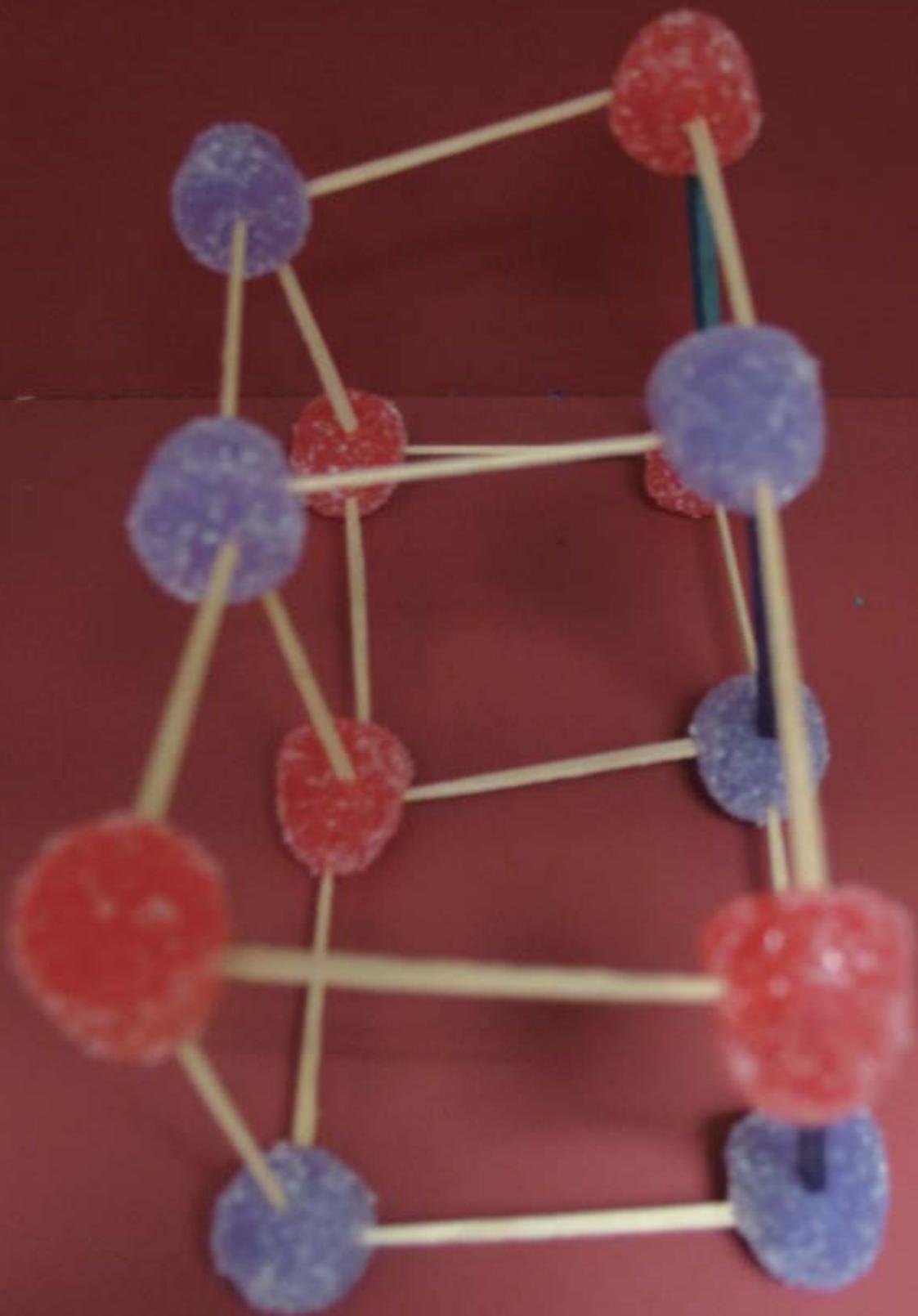
The identification of a sustained interest can often serve as a clue.

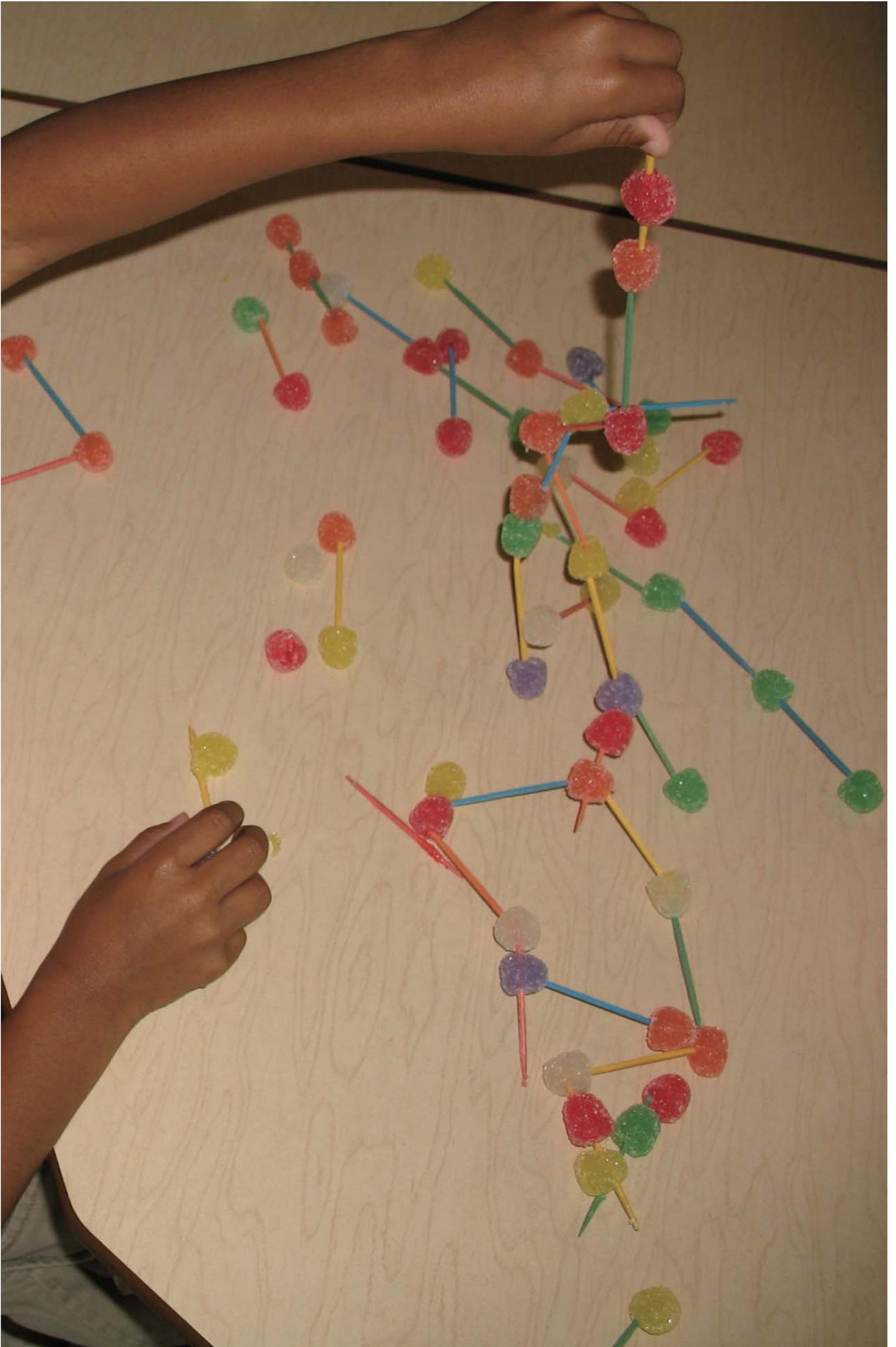
“Dispositions can be roughly defined as habits of mind or tendencies to respond to situations in characteristic ways. Examples are inquisitiveness or persistence at a task in the face of difficulty.”

Lilian Katz

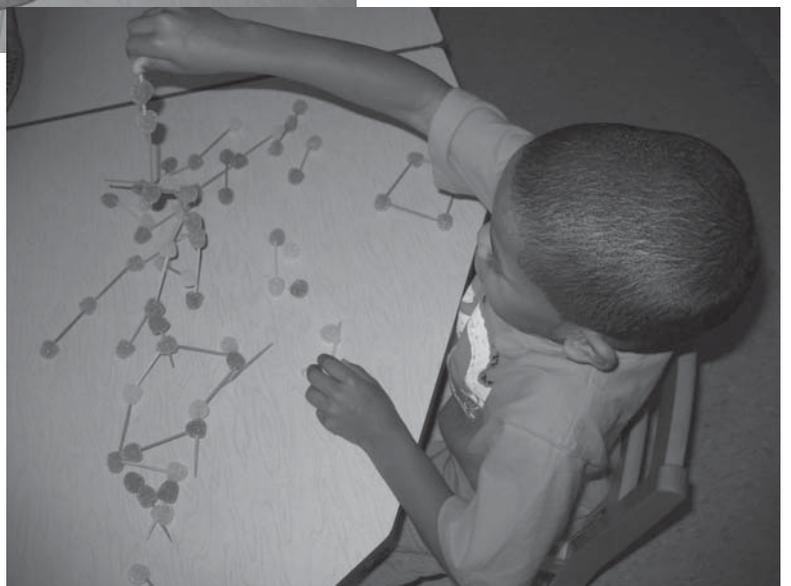
Engaging Children’s Minds: The Project Approach

Gumdrops and Toothpicks





What is problem solving for young children?



F.1.1
F.3.9

Rayann's Gum Drop House



As Rayann began experimenting with gum drops and toothpicks, she quickly decided to build a house. She started with the bottom of the walls that would outline the perimeter of her house and then she began making each of the walls one toothpick tall. Having finished her walls, she decided to put a roof on her house. Working toward the middle from the edges she began constructing her roof, but each time her roof would near completion, it would collapse into the middle of the house.

Although initially frustrated, she persisted and continued to experiment until she learned that columns (toothpicks) were required in the middle of the house to support her roof.

What kinds of problems should they be solving?

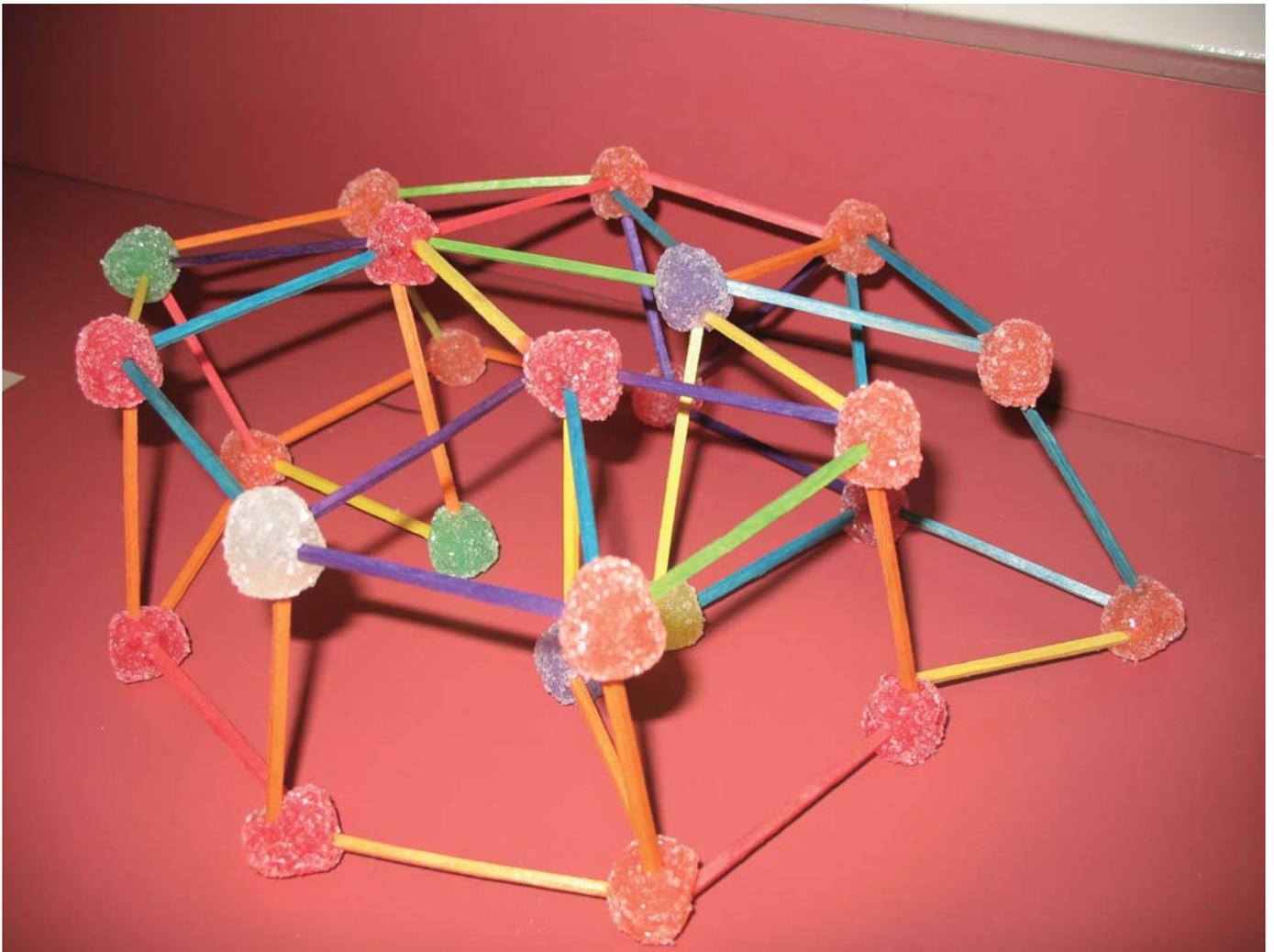
What is problem solving for young children? What kinds of problems should they be solving? How can a teacher support students' abilities to solve problems? These are difficult questions for any teacher to answer for him/herself.

The problems children solve do not have to be big, but they should be relevant to the child in some way. Often the best opportunities for problem solving are actually the problems children create for themselves. Rayann had a plan in her mind for how she wanted to construct her house. Her plan was challenged by gravity and the weight of her house's roof.

Rayann demonstrated the intellectual disposition of persistence as she continued experimenting until she found a solution. Mrs. Bucher supported Rayann's problem solving by creating a classroom culture that made risk taking safe and by offering open ended learning activities through which there were multiple solutions and multiple ways to arrive at those solutions.

How can a teacher support students' abilities to solve problems?

Rayann's Gum Drop House



The problems children solve do not have to be big, but they should be relevant.

“In the second phase (of a project), the teacher can take children out into the community where there are relevant objects, vehicles, machines, people, events and processes to observe firsthand.”

Lilian Katz

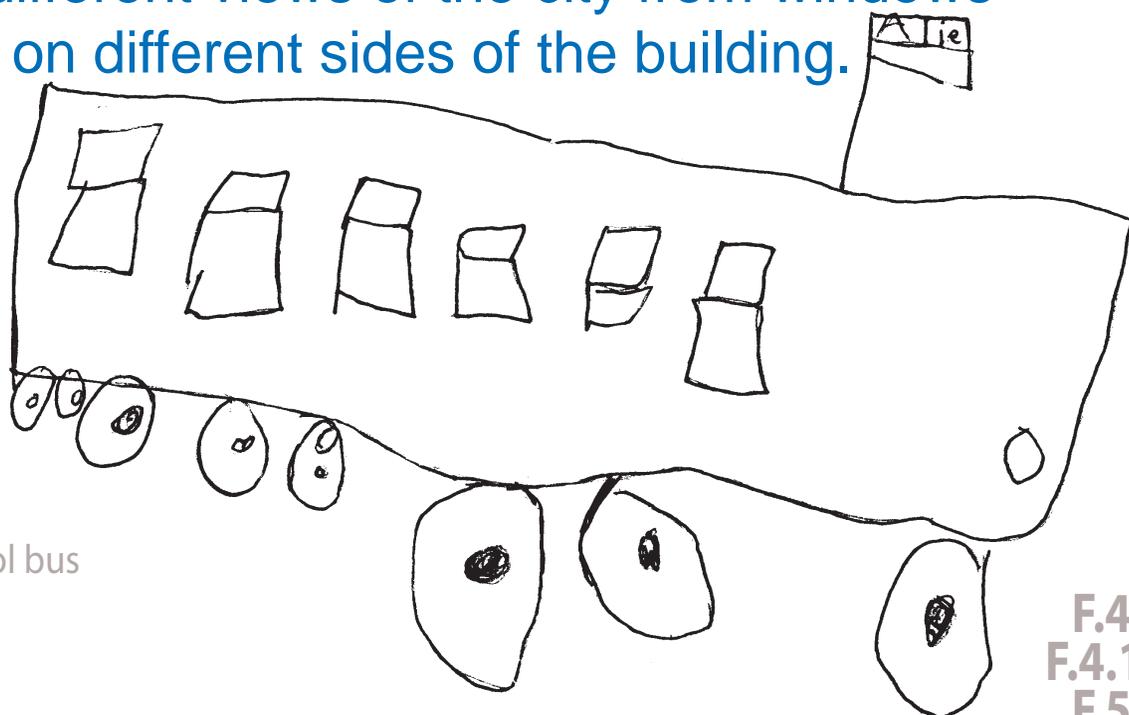
Engaging Children’s Minds: The Project Approach

Study Trip

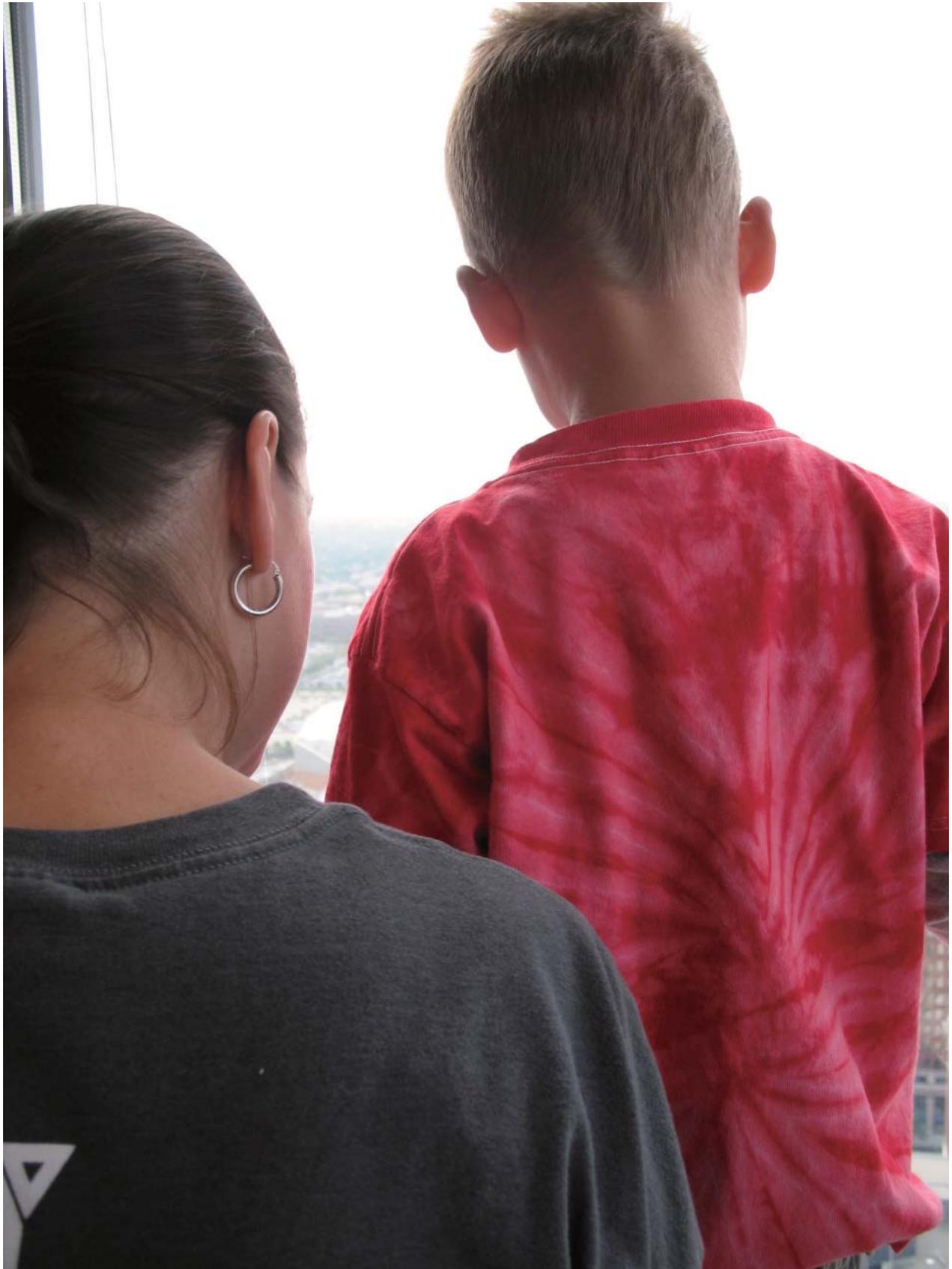




Upon arrival at the Bank One Building (now known as the Chase Tower) the children were treated to a delightful sensory experience. The sights, sounds and smells of downtown were new to many. Each moment was filled with what would become lasting memories for the children like the revolving doors, the escalators, the elevators and of course the view from 38 stories above Indianapolis. The children were intrigued by the different views of the city from windows located on different sides of the building.



Alice's school bus

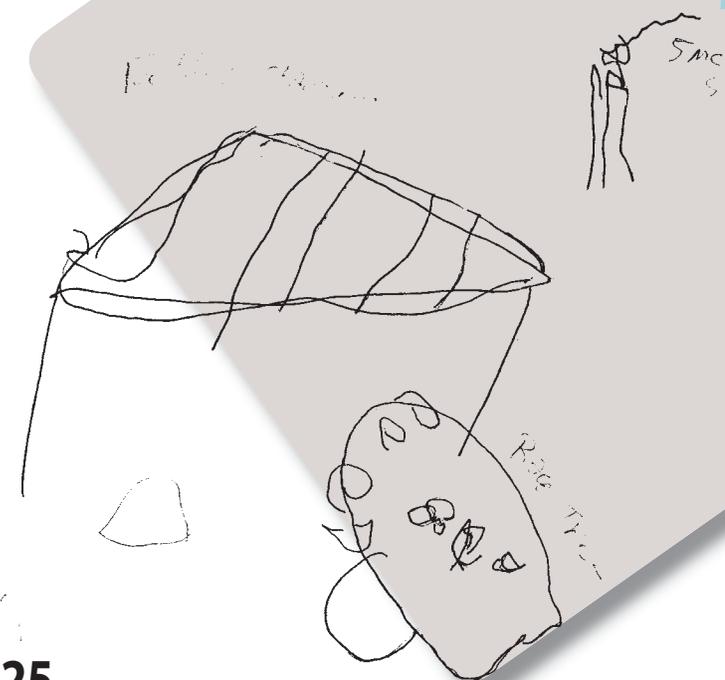


The view shown on the left includes University Park and Veteran's Memorial Plaza. Views from other windows on the 38th floor included Monument Circle, downtown hotels and both the RCA Dome and the partially constructed Lucas Oil Stadium.

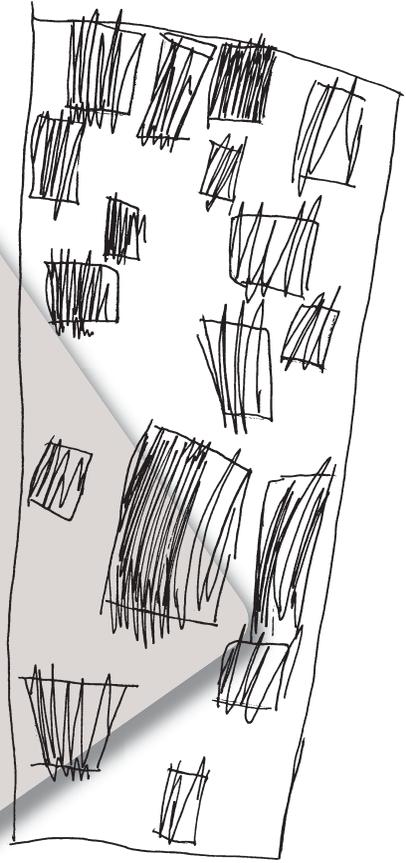
Observing



Focusing



Noticing



Persisting

F.4.3
F.4.8
F.5.5
F.5.6

Drew's mom worked on the 38th floor of the Bank One Building. He had been to the building on numerous occasions, but his mom told Mrs. Bucher he had never really noticed the view of downtown from her office. On this visit, Drew experienced the familiar with a new purpose (notice the palm prints to the left of his hand).



The power of revisiting the familiar is often overlooked in early childhood education. In our haste to expose children to new experiences and new content, we sometimes miss opportunities to extend learning and develop deep understandings that can lead to shifts in the perspectives of young children. The sweaty palm prints to the left of Drew's left hand tell us everything we need to know about how excited young children can be to revisit the familiar with a new purpose!

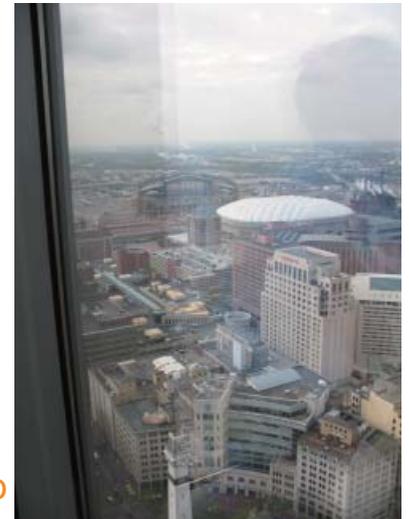
Observations of a Parent

In September I had the opportunity to assist with organizing a field trip, for my son's preschool class, to the Chase Tower (Bank One Building) in downtown Indianapolis.



The children arrived by bus and entered through the revolving doors in the front of the building, their little hands pushing the door to get in the lobby. They loved those doors. I noticed they started looking up at everything... everything was so big. They seemed to be in awe of it all.

From the lobby we rode up the elevator to the 38th floor. There were mirrors on the ceiling of the elevator as well as on the inside of the elevator doors. The children enjoyed looking at themselves as we rode up in the elevator. When the doors opened they couldn't get out fast enough... they wanted to see everything.



We went into a large conference room with floor to ceiling windows and the children ran to look out. They all lined up with hands and faces pressed against the glass to see out. What a picture! Although my son has been to work with me several times, I am sad to say that this was also his first time to look out the window. From here the class was split into two groups. One group stayed in the large conference room to enjoy the view and a snack.

The second group was led down the hallway to a corner office on the opposite side of the building; here they could see different buildings, monuments, people walking, etc. While in the corner office the children were instructed to draw what they saw through the windows. This was amazing to me! Some of the children were so detailed. Some looked down and drew two circles; these were the fountains when you looked down on the Monument Circle. Some drew tall buildings with windows and in the windows were faces looking out. Wow - the mind of a 4-5 year old! Others noticed the swimming pool on the roof at the hotel next door... they thought that was cool. I think some of the parents even thought the view was pretty cool.



After everyone had taken their turn at drawing, we ventured back down the elevator to the lobby. From here we rode the escalator (they loved this-I think it was my son's favorite part) and took the children outside to see, up close, what they had seen from the windows. They looked up at the building and they were able to see just how high they had been. They also spotted window washers on one of the buildings next door. They couldn't believe those men were just hanging out there washing the windows. I think this made some of the parents a little nervous, including me... not crazy about heights.

We ended the field trip by leading the children across the street to the steps of the Monument and taking a great group photo.



I have been on a few field trips with my son and this was, by far, one of the most enjoyable. The children were amazed and excited by all they saw... even the revolving door. To this day, when I walk by or through one of those doors, I smile just remembering their faces.

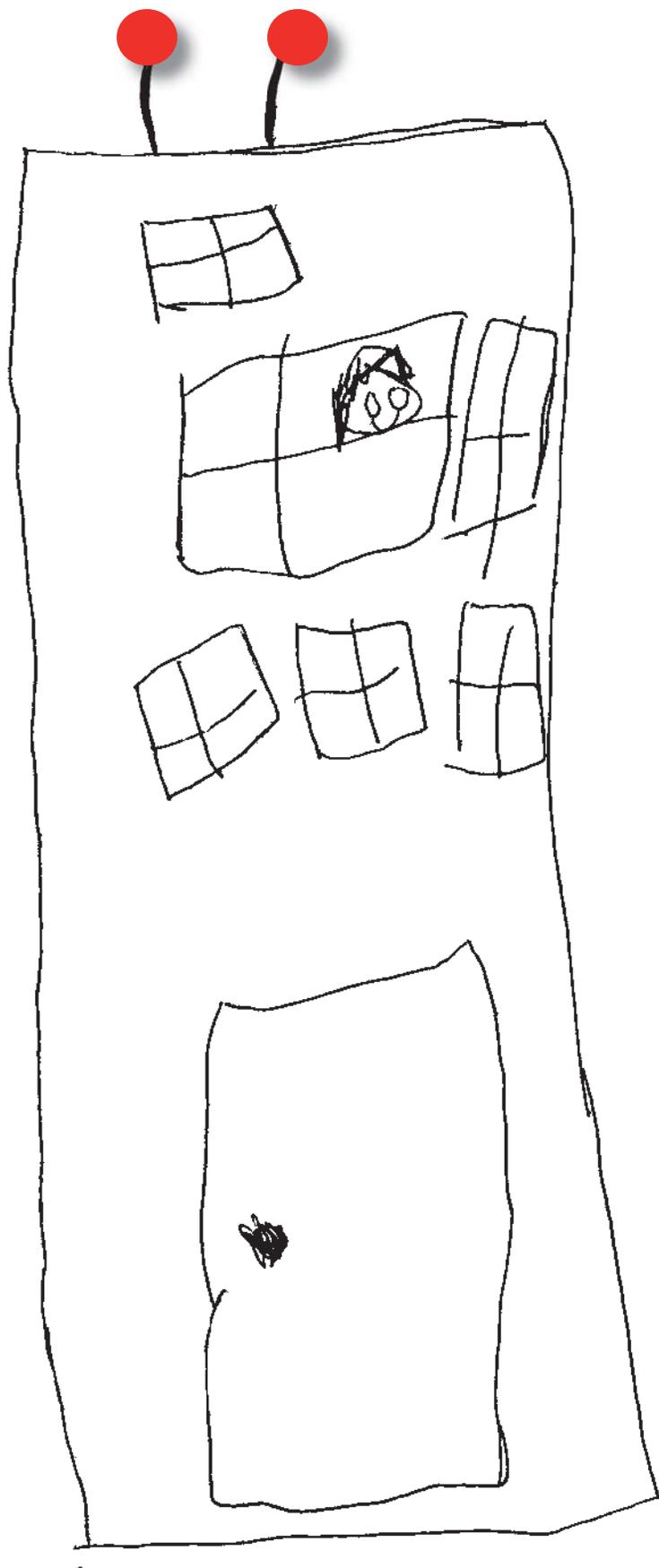
Nancy Rogers (Drew's Mom)

“We believe that participation in groups is key to the construction of individual learning. We also believe that group learning can lead to creating a community culture or collective knowledge that is larger than what any one individual knows.”

Mara Krechevsky
and Ben Mardell

Making Learning Visible

Bank One Buzz



“I saw the red lights!”

Like the red lights atop the Bank One Building’s radio antennae, the children’s interest in the Bank One Building continued to pulse for the remaining weeks and months of the school year. Children frequently arrived at school with great excitement to tell their friends they saw the building, or at night, they saw the red lights blinking in the sky above downtown. The children also brought newspaper clippings and brochures to school, about the city, that featured downtown’s centerpiece (tallest building) and every day when snack time had ended, the children arranged their snack cups into the Bank One Building.





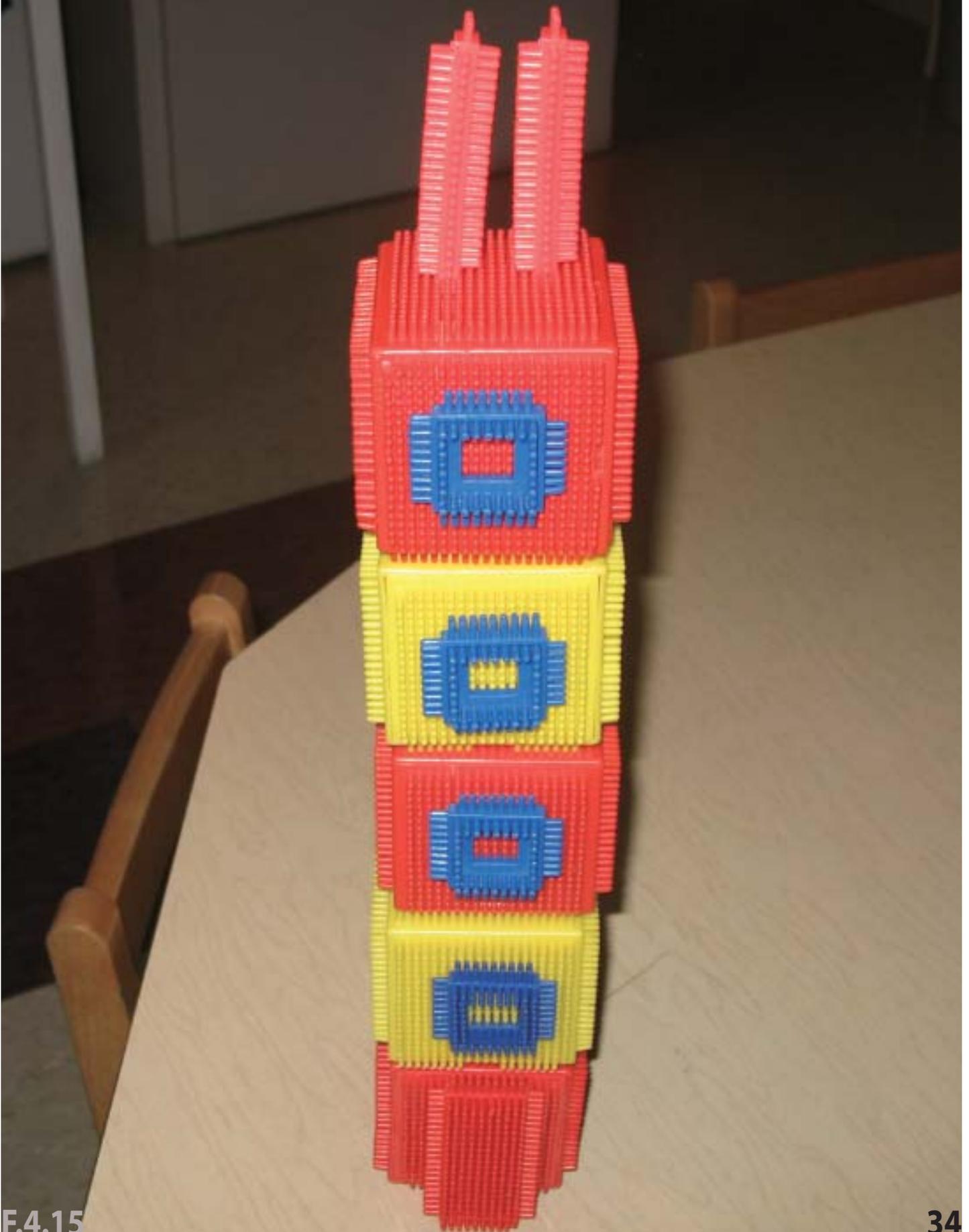
Bank One Building

“Making things is a peculiarly powerful act. Rather than the “things” you make, it is the making itself, the experience, that is the real payoff.”

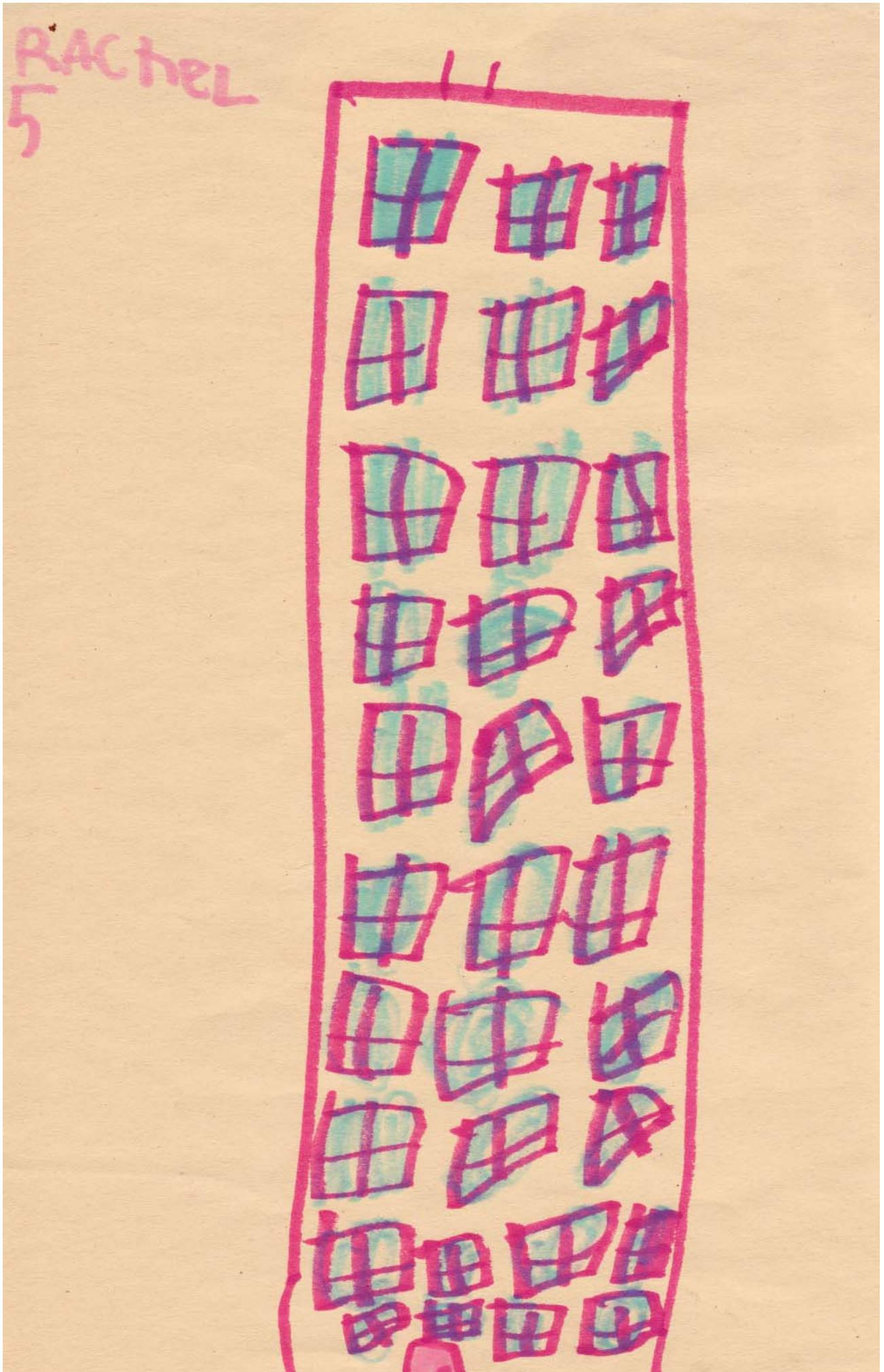
Eric Booth

The Everyday Work of Art

Representation

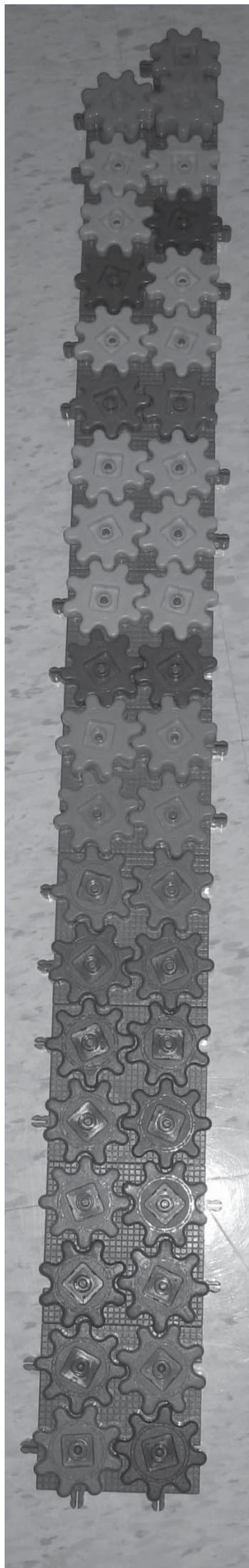


Rachel's Bank One Building in marker on drawing paper



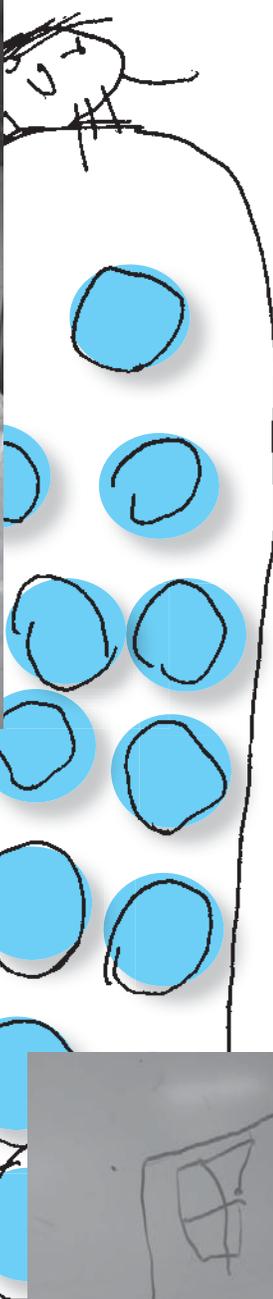
The children's continued interest in the Bank One Building prompted them to represent the building in a myriad of ways. It was as if the children were wearing Bank One goggles through which they viewed all experiences. New and familiar materials alike were offered to them during center time, and it was as if they asked themselves when presented with each material, "What would these _____ look like if they were the Bank One Building?"

Bank One gears

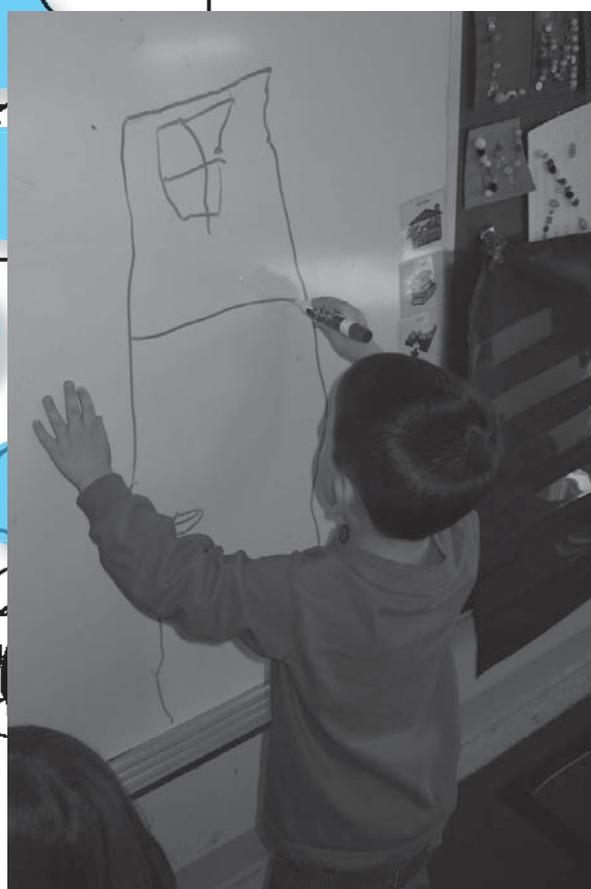




Lili's shaving cream and block structure



Jadan draws on the dry erase board



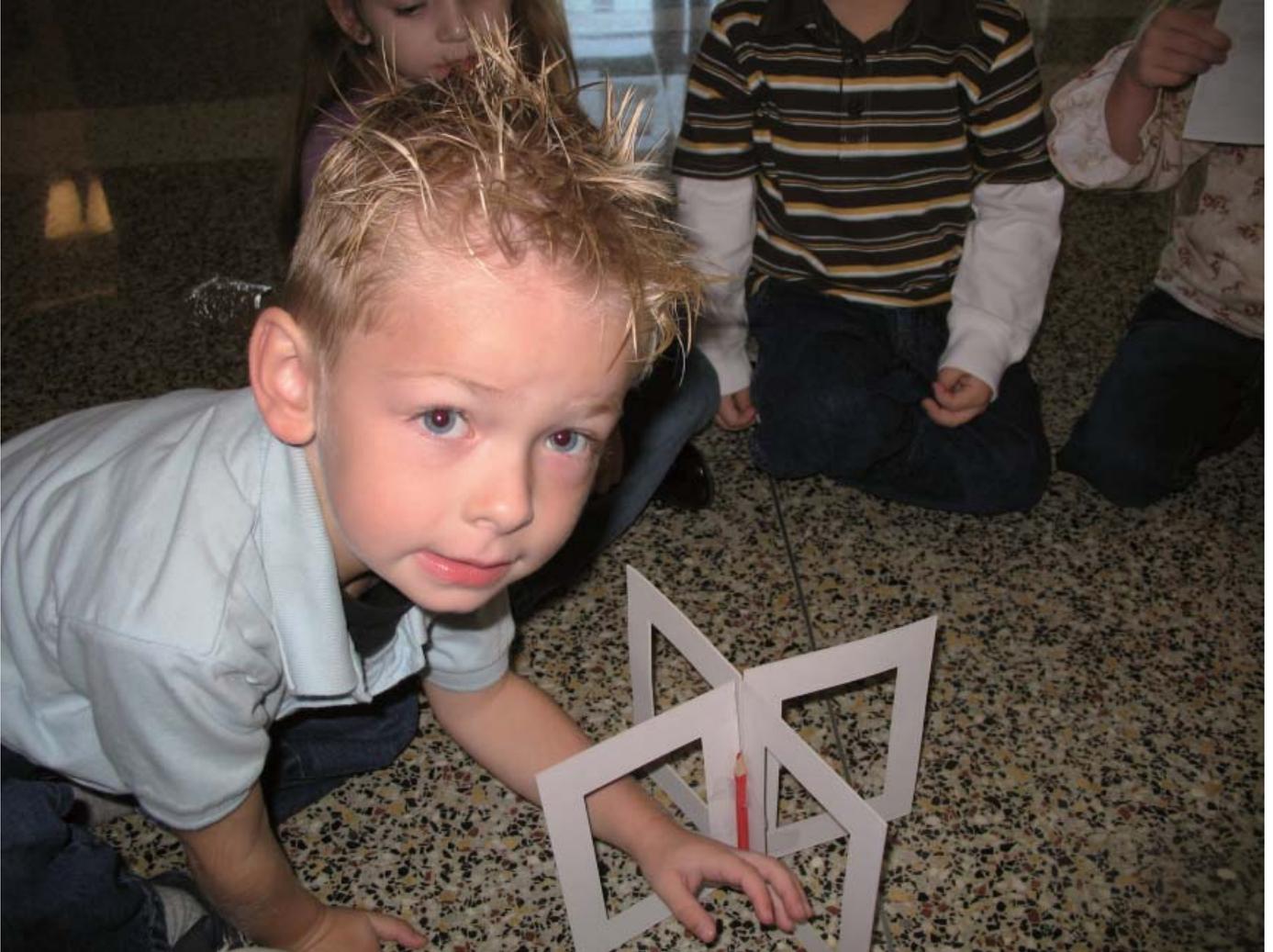
The Bank One Building Quilt





Above, Alice draws a plan for the big Bank One Building. Below, Alice places a window on the nearly completed building. Notice the images of people in the windows who are representing the children on the study trip standing in the windows of the building looking out on the city below.





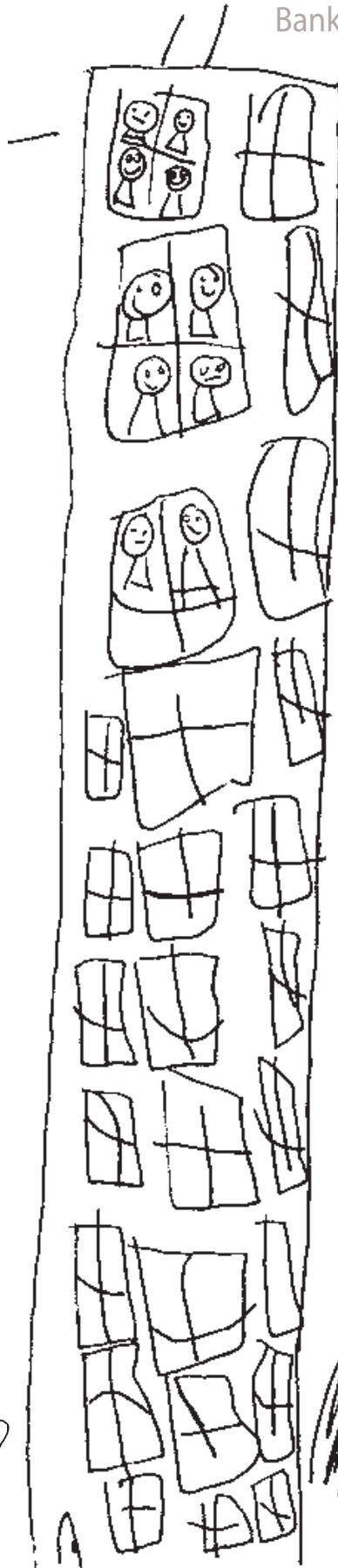
It was important to the children that the Bank One Building have a working revolving door just like the door at the real building. The children designed and built the door you see above on their own.

Although this project continued throughout the year, and as such it did not have a culminating activity, a summarizing activity did take place. The children found boxes outside their classroom one day and immediately asked if the boxes could be used to make a big Bank One Building.

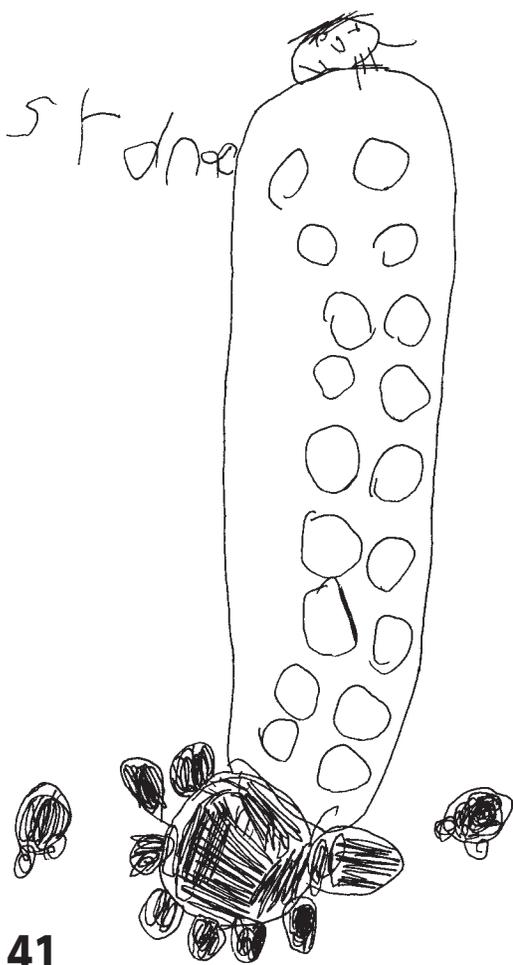




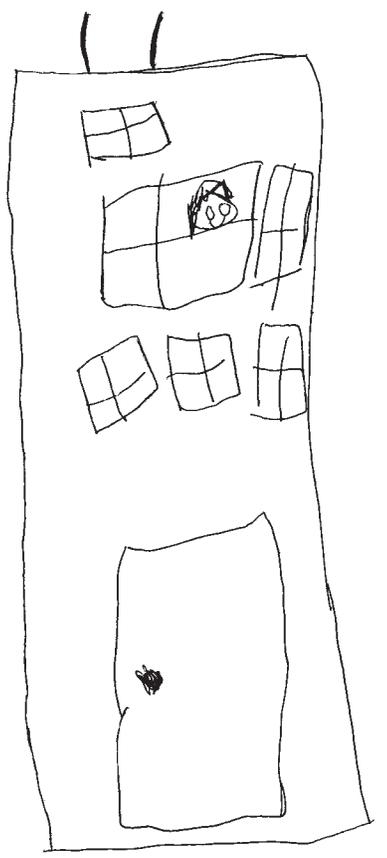
Bank One Building by Rachel



Monument Circle by Sydnee

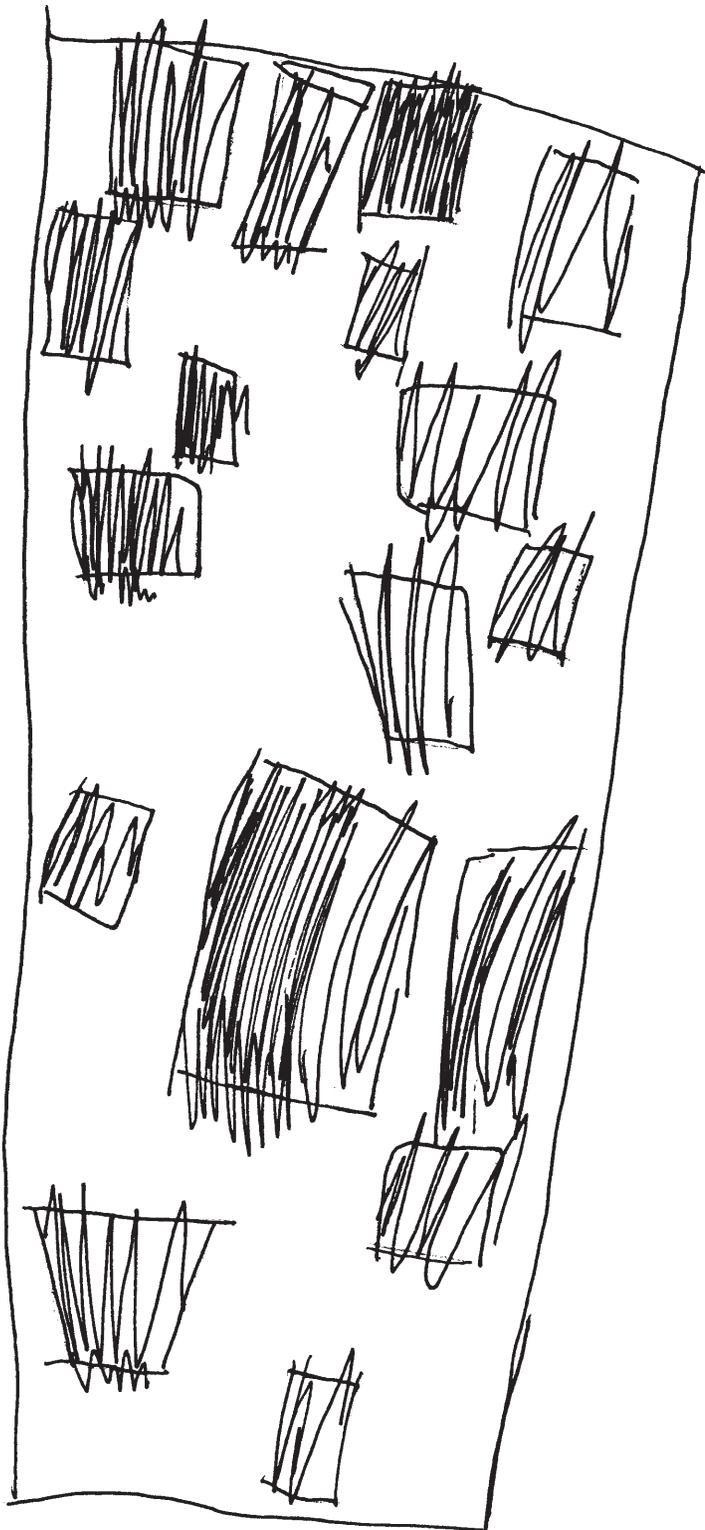


Bank One Building by Emma





Bank One Building by Emily



The White House by Collin

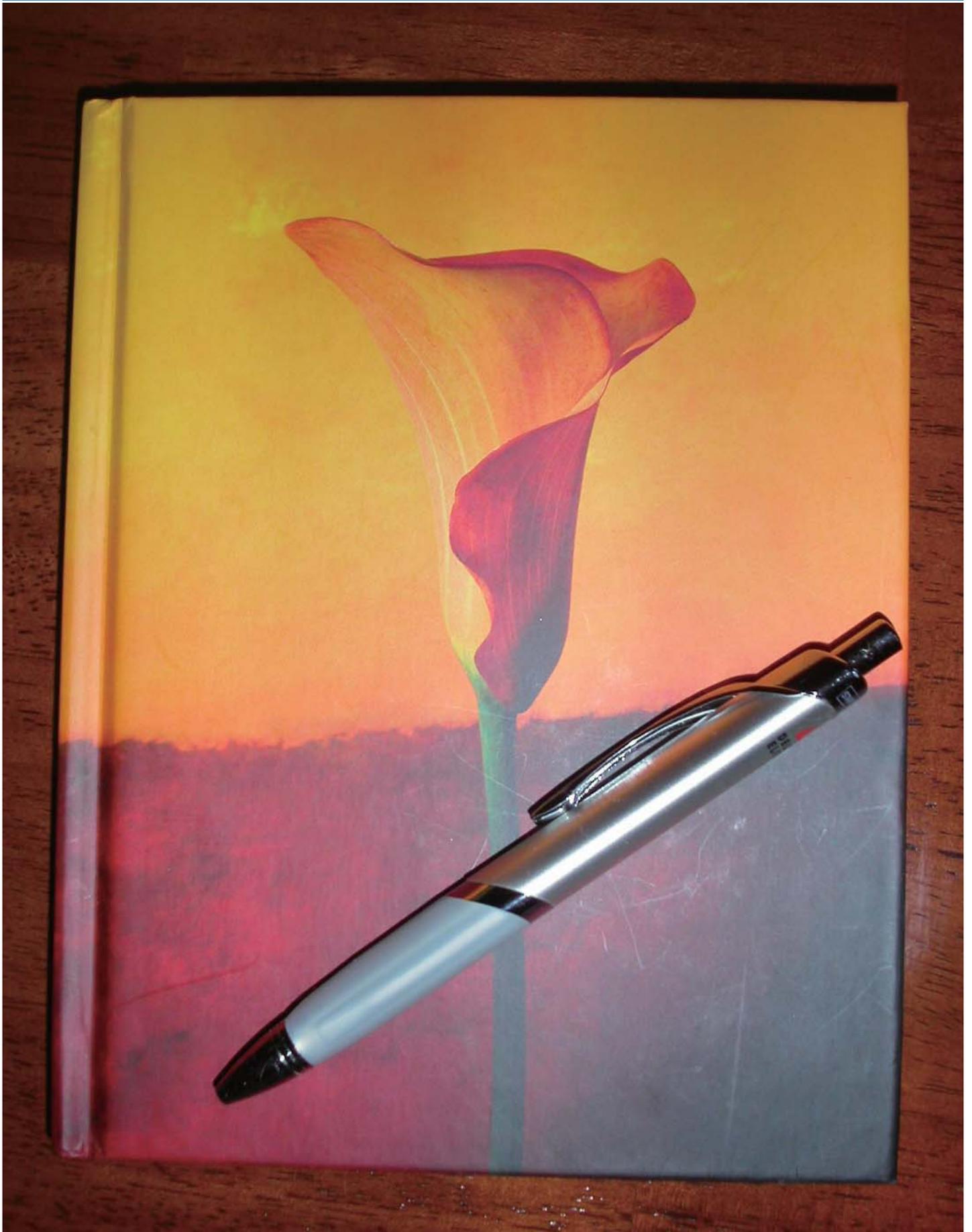


“...when faced with the need to reflect and to reformulate their existing knowledge, as happens when documentation is used, adults and children develop strategies which are often comparable. Essentially, these strategies involve a search for a theoretical, moral, and sometimes even physical ‘stance’ which allows the subjects to exercise greater control over the changes that are taking place; changes that refer to and sometimes undermine both the conceptual and the value systems that they have previously formulated.”

Carlina Rinaldi

In Dialogue with Reggio Emilia: Listening, researching and learning

Reflections



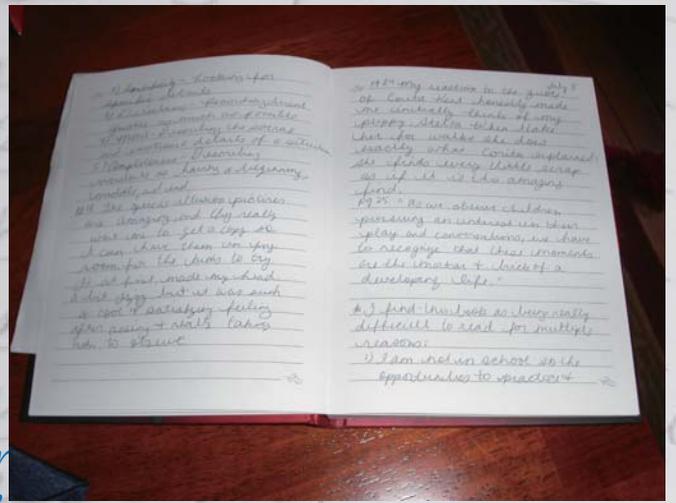
Post Project Reflections

Ron Smith interviews

Abby Bucher

Ron: You said that this project began when you noticed the children's interest in block construction. Children often show interest in new materials or experiences. Why did you think this was different?

Abby: The children showed a consistent interest each day at school. Block play can be a naturally engaging material for children and by observing them carefully, I was able to see their true interest.



Ron: When did this project become a project?

Abby: It became a project when I saw excitement and continued interest.

Ron: How were you sure?

Abby: I was not sure, but I followed the children's lead. As their interest grew, so did mine. Because of their interest, I wanted to give them further opportunities to explore.

Ron: Are there conditions under which you would not pursue a project topic even if the children were interested?

Abby: Only if the topic would cause harm or could be dangerous.

Ron: Why did you decide this topic was worthy of further investment of time and resources?

Abby: Because a variety of children showed consistent interest. They were eager, they asked questions and they continued to want to show me the structures they built.

Ron: It is a big leap from building in the block area to the depth of project this became. How did this happen?

Abby: It started with observation and then conversations with the children helped it move forward, but one child in particular, through his responses in conversations, stimulated ideas for a possible study trip. Once the study trip had occurred, I no longer needed to initiate conversation because the children were so interested, they kept it going throughout the year.

Ron: So what did he say?

Abby: His response to what is a building was, "It's tall, it has shiny windows, and my mom works there." This comment caused me as well as the children to become truly interested in what he was saying and we wanted to know more about his mom's building. He was kind of our resident expert!

Ron: What, do you believe, is problem solving for young children?

Abby: I believe it is a challenge, most appropriately from them or their interests that stimulates a desire to find solutions.

Ron: What kinds of problems should young children be solving?

Abby: I think they should be solving problems that are relevant to them so that it engages them.

Ron: How do you support students' abilities to solve problems?

Abby: I try to create a classroom culture that makes it ok to take risks.

Ron: You have expressed fondness for this project. What is it about this project that you enjoyed so much?

Abby: I loved that it came from the children. I know that projects don't always have to come from the children, but I loved the way this one did. I loved how, after we visited the Bank One Building, the children were genuinely excited to tell me about when they saw the building when they were with their families. I loved that the Bank One Building continued to come up in conversations at least once each week for the rest of the school year. I loved how all of the families were interested in this project and many of the children took their families back to the Bank One Building on their own later in the school year.

Ron: It sound like this project may have created lasting memories for you and the children.

Abby: Yes, it did.

Ron: Projects are often guided by a series of decisions made by both students and teachers. As you reflect back on the experience, are there any decisions you wish you had made differently? Were there any missed opportunities in this project?

Abby: I wish I would have had more opportunities to have the children construct the Bank One Building out of different materials. I think my biggest wish is that we could have revisited the building again, although those are wishes. I also think we could have further studied architectural elements, but I cannot go back, and I have to embrace that it was a meaningful project for all who were involved. It is hard to get out of your own head when you are in the middle of a project. I think that is why collaboration with other teachers can be so helpful.

Ron: So, that collaboration did not happen during this project?

Abby: I don't think so. I think that because the project followed such a strong path, it was hard for me to see it from another perspective, but I am still pleased with the project.

Ron: Knowing what you know now, about this project and where it went, what might you do differently next time a project evolves?

Abby: I am not sure, because it will be a different group of kids and a different topic, but I might begin collaborating sooner, so that I have another perspective guiding my thinking.

Ron: How have you grown as a teaching professional through this project? How are you different?

Abby: I have continued to learn and grow as an observer. I think I am more flexible in terms of following children's lead. In terms of growth, I think I am better now with reflection. The process of making this book has helped me to become a better storyteller.

Ron: How are the children different for having shared this project experience together?

Abby: The children are different because they now use the Bank One Building as a landmark for our city. I also think the children began to feel stronger and more independent because I valued their opinions and thoughts.

Ron: You chose to include the Indiana Foundations for Young Children in this book. Why did you think it was important to include them?

Abby: I think it is important to show that children can acquire the skills they need through project-based learning. As this project began, my first thought was not about how I could connect standards with the project. Instead, I saw it as an experience that could enrich the children's school lives and bring meaning to their learning experiences. The end result, however, was that numerous Indiana Foundations addressed during this project.

English/Language Arts

F.1-Reading: Word Recognition, Fluency, and Vocabulary Development

F.1.4 Hold book right side up, looking at pages and pictures

F.1.11 Read own writing

F.1.27 Match the same letter in different styles

F.1.43 Use new vocabulary learned from experiences

F.2-Reading: Reading Comprehension

F.2.2 Request or select a story by the title of the book

F.3-Reading: Literary Response and Analysis

F.3.5 Ask questions and make comments about a story being read

F.3.7 Tell something that a favorite character does in a story

F.3.13 Talk about the cover and illustrations prior to the story being read

Writing Process

F.4.1 Draw pictures and scribble to generate and express ideas

F.4.3 Associate writing with words

F.4.8 Write using pictures, letters, and words

F.4.10 Use known letters or approximations of letters to represent written language

F.4.12 Dictate something for an adult to write down

Writing Application

F.5.4 Draw name or a message on a card or picture

F.5.5 Give writing to someone as a means of communication

F.5.6 Scribble a message on a card or picture

F.6-Writing: Writing Conventions

F.6.1 Write from left to right

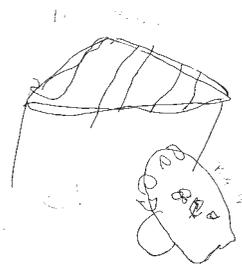
F.6.2 Combine strokes and shapes to represent letters

F.7-Listening and Speaking: Listening and Speaking Skills, Strategies, and Applications

F.7.2 Watch and listen to a story to completion for ten minutes or more

F.7.3 Stay with an adult-directed activity or story for 10-15 minutes

F.7.4 Follow one-step spoken directions without prompts



Mathematics

F.1-Number Sense

F.1.2 Count a number of objects up to three

F.1.5 Identify first and last

F.1.16 Rote count to ten

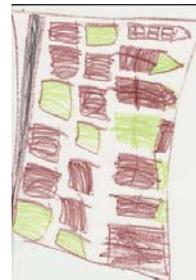
F.1.18 Apply one-to-one correspondence with objects and people

F.1.23 Use a tally system

F.2-Computation

F.2.3 Count on fingers

F.2.9 Make guesses related to quantity



F.3-Algebra and Functions

F.3.3 Reproduce simple AB patterns of concrete objects

F.3.9 Sort a group of objects by more than one way

F.4-Geometry

F.4.15 Identify circles, squares, triangles, and rectangles

F.4.20 Complete interlocking puzzle of 8-12 pieces

F.5-Measurement

F.5.7 Communicate the size of things relative to self

F.5.20 Choose an object based on function

F.6-Problem Solving

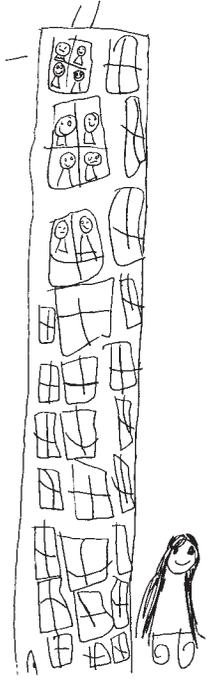
F.6.4 Make simple cause/effect predictions

F.6.9 Identify the missing part

F.6.11 Give reason for placement of objects

F.6.14 Use a secondary strategy when the first one fails

F.6.15 Use trial and error to solve problems



Science

F.1-The Nature of Science

F.1.2 Interact with and explore a variety of objects, books, and materials

F.2-Scientific Thinking

F.2.1 Participate in activities related to number sequencing and counting

F.2.10 Participate in activities using materials with a variety of shapes and patterns

F.3-Environments

F.3.1 Participate in activities using materials with a variety of properties

F.4- Communication

F.4.4 Participate in discussions related to their findings

F.4.5 Use charts, drawings, and/or graphs to share their findings with others

F.4.7 Dictate statements/draw pictures to share findings



Social Studies

F.1-History

F.1.1 Relate new experiences to past experiences

F.3-Geography

F.3.11 Use words hard/soft, rough/smooth, and water/land when describing surfaces

F.3.20 Match objects to the location they belong

Visual Arts

F.2-Creating Art

F.2.3 Compare and contrast own creations and those of others

F.2.10 Use objects as symbols for other things

F.2.19 Use a variety of materials to create original work





Sources

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Mrs. Bucher's MWF Class
2007-2008

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Rayann
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Jacqueline
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Jonathan