

University of Massachusetts Amherst

From the Selected Works of Kathleen A Strub-Richards

2005

The Mini Golf Project

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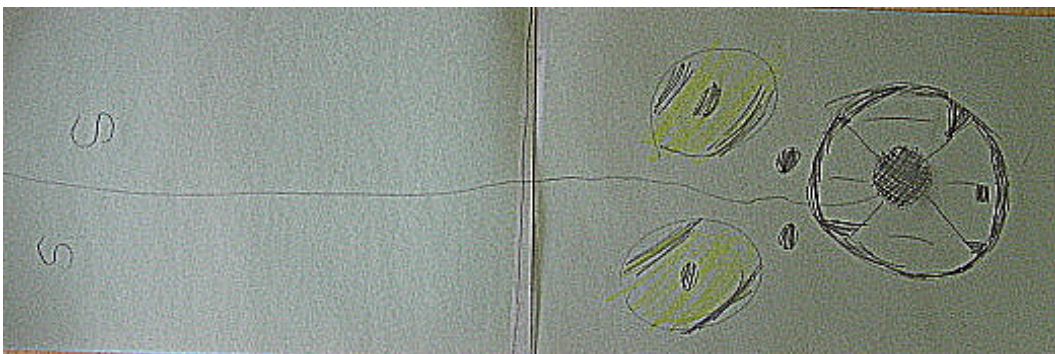
The Renaissance School, Amherst, MA

Facilitated by Kate Strub-Richards and Dotty Meyer

Documented by Kate Strub-Richards

Day 1 - On Wednesday 3.02.05 many of the children were in the block area building an enclosure. One of the teachers, Kate, noticed that some of the children, Victor and Bart in particular, were really more interested in knocking down the walls than building them up. In order to minimize the amount of children in the block area and to focus on the children's true interest Kate built a cardboard block structure in the circle area and invited the children to roll balls at the structure in order to knock it down. The children were completely engrossed in this activity. One of the balls was a golf ball. Laura noted that she has played miniature golf at the place with the bumper boats (referring to Look Park) This led to a discussion about miniature golf. Many of the children said that they too had played miniature golf. Kate suggested that the children and the teachers at the school make their own miniature golf course. The children loved this idea. Christina, one of the student teachers, picked up on the enthusiasm and invited Victor, Bart, and Leslie into the art room to begin designing a miniature golf course. They worked together building a course, when Bart's interest began to subside Bobby joined Victor, Leslie and Christina in the art room.

Art Room - Christina encouraged the children to begin thinking about and designing a miniature golf course. She asked them to think about what types of obstacles they would have in their miniature golf course. Bart, Leslie, Bobby and Victor all drew sketches for a golf course. Bart drew a picture of four holes with four flags He labeled them [Holes 1, 2, 3, 4](#). Victor began to draw his vision of a golf course. He was chatting about golf courses as he began to draw: [To get a hole in one is tricky because like one there's a rock blocking the way. But there's a little room that the golf ball could fit in.](#)



(He pointed to the circle with lines in his drawing and explained) [A golf hole, maybe in the spring we could build something outside. Like we could make a long green with holes. And if you get one in a hole you get a free shot. And move around the putting green. Maybe there could be a guy that makes sure you get a score.](#)

Victor ([pointed to drawing and said](#)): [There's two holes \(the yellow ones \) blocking the way and you have to try to get it between the two to get it into the main hole. These are the two holes; I mean tubes that you will start all over. Both of them lead to the beginning again \(the smaller holes\).](#) These two S's stand for start.

Day 2 -Circle time - In order to assess prior knowledge about miniature golf and to see if there a genuine interest in further investigation of this topic, Jenny (one of the teachers) asked the preschoolers about miniature golf.

Jenny: Has anyone ever been to play miniature golf? What do you remember?

Laura: Mini golf is where you have a ball and you hit it with one of those sticks, and then you go to the next hole and the next hole...it goes down at the end and never comes back. Then you win.

Jenny: What do you win at the end? Is there a prize?

Laura: You get to go home.

Nico: I went to Martha's Vineyard at the beach house and me and my mom went to miniature golf and I loved it.

Jenny asked the children if they could help her tell a story about a little girl and a little boy playing miniature golf. She began

Jenny: Once upon a time, not that long ago, there was little boy named Jack and a little girl named Mica. Jack and Mica were brother and sister. They were also very good friends. On a nice sunny day, their mother took them to play miniature golf. They had never played miniature golf before. This was their first time ever. They didn't know what to expect. They got out of the car and they saw what looked to be a big mountain and waterfall. There were lots of colors and beautiful decorations and lots of people waiting in line.

Dotty (another teacher) continued: Mica was a little hungry. She asked if she could have a hotdog from the hotdog stand. But Jack didn't want to eat. He wanted to get right into playing golf. I'm not sure if he really knew how to or what he needed to play golf ... I'm wondering if maybe you could tell that part of the story.

Cathy: They saw colored balls on the little shelves and put pennies in the thing and the balls rolled up and they opened something and the balls rolled out in their hands.

Bobby: And you need a stick to hit it.

Laura: It's not a stick, a golf club.

Bart: One time when I was two, or three, or four I always went to miniature golf.

Nico: They hit the balls with their golf club.

Laura: And they tried to get a hole.

Victor: They had to find colored balls and there was this pool that they slid in, and they couldn't get it and they had to go back to the start, and they had to watch where the pool was.

Laura: They go back to get another ball.

Bobby: And they put on their bathing suits and they dove in to get the ball.

Dotty reiterates the story thus far.

Henry: They found a little pool in the wall. They can use it.

Nico: Somebody put their bathing suits on to go over the river.

Henry: Maybe there's a bridge.

Cathy: They got some balls out of slots and they went to the holes and they both got in the holes and they went on to the next one.

Susana: And then it fell into the water again, and they had to put on their bathing suits again, and they went into the water, and as soon as they got it and they hit the ball and it dropped in their hand.

Rebecca: I hit it with my mom and Max played golf with me.

Laura: Then they went to last hole and they never got their balls back.

Brenna: They found a magnifying glass and they played hockey park.

Abby: And then when they got to that part they didn't know how to get it back.

During the story the teachers discovered that most of the children had experience with the game of miniature golf. Many of the children were particularly fascinated with the water that the balls could fall into.

Day 3 - The teachers decided to add some miniature golf props to the rug area as a provocation. A miniature bridge, that resembled the Great Wall of China, was placed on the rug along with a golf club, a golf ball and a tin hole. Next to the Great Wall the teachers placed a plastic gutter, a tube, and a golf hole made of tin. The children used all of these materials to shoot the ball over the bridge as they practiced holding a golf club and hitting a golf ball.

As they played golf the following discussion took place:

Gruffydd (to the other children): **You have to keep your eye on the ball.** Noticing that some of the children are having trouble moving the ball very fast he says, **you'll have to move it harder.**

Kate: You're a good coach. I'd think that you had played miniature golf before.

Gruffydd: **No, I play big golf.**

Kate: Do you play big golf at home?

Gruffydd **play outside. The balls don't go in the water. They have a bridge. The balls go far away....The obstacles are for big kids.**



During Circle Time the teacher, Dotty, asked the whole group about what we would need for a miniature golf course in our classroom. The children said that we would need holes, balls and golf clubs. Three small groups of children met to explore in their journals what a miniature golf course in our classroom might look like. After school, during post session, the teachers reflected on what the children had said and written in their journals. The teachers shared ideas and insights that came from the children's journals.

Here is the list of the miniature golf ideas generated by the children.

Lola – **barricades**

Cathy – **pools, balls floating, they bounce in the water and then up into the hole.**

Victor – **Curved courses, balls that would bounce off the walls around curves; obstacles such as a ball might jump a curve and go into the pool instead of the hole.**

Henry – **ball goes through a tunnel and a pearl comes up.**

Leslie – **Bridge to walk over; faces with curtain hanging below, ball gets hit through curtain.**

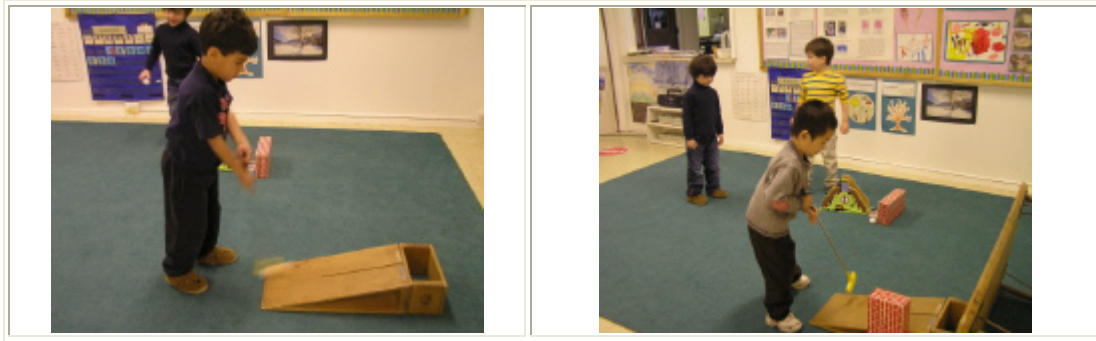
Bobby – **flags, a place with food**

Edward – **ramp over water with hole on island**

Nico – path

Susana – ball goes around corner; when it goes in the hole then it's done.

Day 4 - The teachers added a ramp to the miniature golf area. The children now had two different paths in which to aim their golf balls. Two golfers were thus able to play golf simultaneously.



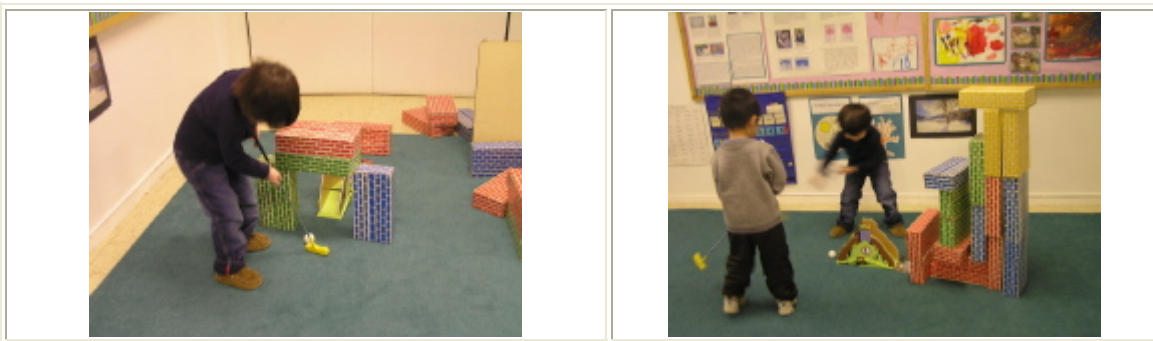
Nico: I want to make it so the ball jumps over the hole and gets over here.

Nico: You forgot something; a block.

Gryff: I'm gonna hit it really hard this time 'cause I love this.

Nico: You have to hit it easy. You have to practice before you do a new one.

Henry (to Leo): I think you need to put it right here and then you push it. (Henry is showing Leo how he shoots a difficult hole. Leo cannot get the ball in the hole. Kate suggests adding blocks along the side. Leo does this and the ball goes in . Gryff suggests making a bridge.



Gryff tries to assemble a bridge but he is unsuccessful.

Kate asks Gryff, How are you going to make a bridge?

Gryff builds a structure with three red cardboard blocks. Two of the blocks are standing vertically and one is lying horizontally between them. Kate assumes that Gryff is making a bridge. She asks him about his reasoning behind this.

Gryff tells her, I'm going to try and get over that. Gryff tries to golf over the horizontally block and is unsuccessful.

Nico, who has been listening to the conversation, says, I know what the problem is. The red one is the problem . Nico removes the vertical block and now only the two horizontal blocks are in place. Gryff continues to make a bridge structure that has a

tunnel beneath it. He tries to get the ball through the tunnel, over the bridge and into the hole. He is unsuccessful and says, *Maybe I should try it a different way.*

Gryff, Leo and Nico dismantle the tunnel then Leo decides to add blocks on top of the already existing bridge to make it easier.



A few minutes later the boys begin to line blocks in front of the bridge.

Nico: *I'm making a road for it.*

Nico begins to add sides to the road. Leo and Jewel help.

Henry shoots a ball over the path and exclaims, *I got 100, so I won.*

Later during circle time the children experiment with getting a golf ball to go up onto a table. The teachers set up two provocations. On each of two rugs, a hole is set up on top of a low table. The children are divided into two groups. They sit around a low table and are given a golf ball and asked "How do we get the ball from the ground into the hole on the table?"

Group 1 – Teachers: Dotty and Pat

Children: Brenna, Jewel, Cathy, Susana, Rebecca, Fynn, Laura, Gruffydd, and Ally

Question: "How do we get the ball from the ground into the hole on the table?"

Brenna: *Use plastic to swing the ball*

Rebecca: *We could build a ramp. Swing it hard to get it up there*

Laura: *We could make a bridge*

Gruffydd: *From a ladder*

Susana: *Hit the ball; it is going to go up and down and then hit the table*

Cathy: *Using a ramp and a magnifying glass*

Jewel: *Have a make believe mountain and go up that way.*

Group 2 – Teachers: Jenny and Kate

Children: Leo, Nico, Henry, Victor, Leslie, Lola, and Bobby

Question: "How do we get the ball from the ground into the hole on the table?"

Leslie: *Making a bridge out of a table*

Henry: *Pick it up and drop it in.*

Kate explains to Henry that we need to use the golf club, not our hands.



Victor: Make a ramp sort of or we could use a hill sort of ramp. A big ramp that's 12'



Nico: Using skinny pieces and make a ramp



Bobby: A ramp out of wood
Kate: Maybe they are too short how could we make this work?



Lola – Avec ca [with this] (Lola picks up a long green tube).

Day 5 - The minigolf area has a new item added to it. It is a miniature Eiffel Tower with a tunnel underneath it. In order to follow with the discussion during yesterday's circle The Eiffel Tower has been set on a low table. There is a metal golf ball catcher behind it. The gutter, tube and London Bridge are still available to the children. The children begin playing with the different golf props. Someone leans the gutter on the side of the table up to the Eiffel Tower. Henry takes a swing and says, Henry: I got 100. Just like yesterday he has again mentioned scoring.



Nico looks at the Eiffel Tower perched on the table and says;
Get a block to block it . He then adds rectangular block to the back of metal hole behind the Eiffel Tower.

He takes a couple of shots and then says:

Nico: Remember yesterday when we made the big, big, big thing?

Kate: The path?

Nico: Yes, path. Yesterday. Maybe we can make it again.

Kate (still thinking about the golf hole behind the Eiffel Tower) says, "how are you going to get it in there?"

Nico moves the tower and hole up to the end of the table closer to the ramp.

He and a friend add the long green tube. Let's do it this way. They add the green tube.



Jenny, in the meantime has been showing Bobby how to position his body like a golfer, to the side, one hand above the other, and swing. She tells him that he can find pictures of professional golfers in the books that Dotty borrowed from library. Bobby walks away and Jenny fears she may have pushed him too far, but he returns and asks where the books are. He leaves and brings back a large hard cover book called Ultimate Golf and flips it open. Jenny and Bobby look through at the pictures of the grownups golfing. Jenny points out their form.

Nico and the other children begin to reconstruct the path they made yesterday but this time the path leads to the ramp hole.

Kate: Does this look like a mini golf course?

Bobby: *It doesn't look like a real one but it does look like an inside one.*



The path is built of the cardboard blocks but there are many cracks where the ball could fall through. Instead of pushing the blocks together to get rid of the cracks Nico and Gryff lay more blocks on top of path to fill in cracks. Jenny and Kate find this fascinating because it defies their adult logic to simply push the ramps closer to the path.

Gryff (explains how to use the Eiffel tower), *You have to hit from there and fling across here and then in the hole.*

Jewel adds the Great Wall Bridge behind the Eiffel Tower. There is a space between the Eiffel Tower and the ramp. Victor moves the tower up so there is no space then...

Nico: *I have an idea;* he puts the metal hole behind the Great Wall bridge.

Kate observes the children practicing their new challenge. She sees their skills are improving and says "just wait until we take a field trip to mini-golf. You're so good you're going to beat your parents."

Edward: *But I'm gonna be on my mom's team.*

Jewel: *I think this should go here and this should go here.* She turns the ramp around from facing left to facing right.

Nico: *I have an idea, we have to whack it to go up there and whack it to go up here.*



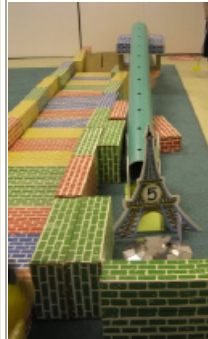

Kate shows the children that she thinks the ball will get stuck on the edge of the ramp. She asks Victor what we should do about the problem.

Victor: *Turn it around.*

Kate: To how it was?

Vic: *Yeah.*

Victor: (Speaking aloud as a newscaster describing his play) He does it and it goes off the track! It was spinning when he picked it up... and then the track broke a little... He missed—oh! He gets it and plays out... and breaks it in... breaks it in... oohh! Gets off the course... Then he got it in!!

			
<p>Lola makes new hole out of tube and ramp. On the left hand side of the path</p>	<p>She has added a gutter that goes up to the top of some blocks then down a tube that she placed on the other side.</p>	<p>At the end of the tube are the Bridge and Tower and finally the hole.</p>	<p>Lola practices using her new construction.</p>

Victor: (Commenting on Lola's construction), This is a good job. I like this golf course. We are golfers.

During circle time we met as a whole group and posed the following question to the preschoolers:

Kate- "Where does miniature golf come from?"

Susana: a park

Leo: a bus

Laura: a city

Victor: from a golf stadium

Henry: a ball store

Nico: from workers

Cathy: a miniature golf place

Bobby : a miniature golf hen that lays golf balls for everyone and miniature golf places for every friend to play it.

Kate said to the children, "Before miniature golf there was real golf."

Noticing that the children were somewhat unclear as to where a miniature golf course comes from we decided to divide the children into small groups to look at pictures of golf and to talk about what the children observe in the golf books and golf photos.

Group 1 - Teachers: Kate and Liz

Children: Victor, Leslie, Lola, Bobby, Laura, Jewel

Kate planned to share a golf book with the children but the book was consisted mainly of photographs of Tiger Woods so Kate and Liz opted for the computer picture of a mini golf course instead.

Liz showed the children the picture of a miniature golf course and then asked the children:

Liz: "What do you see in the picture of the miniature golf course that you would like to have in our golf course."

Laura: Waterfalls

Jewel: Rocks.... Green leaves

Victor: Putting Green

Jewel: A Tree ... tunnel

Victor: You golf on the putting green

Kate: "What would you like to have in our miniature golf course?"

Bobby: Snack bar with food

Laura: Balls, grass, swimming pool

Bobby: golf clubs

Kate: "I noticed that some of you thought that we could have some water and a bridge in our miniature golf course? How could we go about doing this?"

Bobby: We could build one out of wood (referring to a bridge). ... Call the builders and have them make a bridge over the water.

Kate: "We are the builders. What would we have to do? How would we build a bridge?"

Bobby: Boards over there (he points to block area). Bridges have boards.

Leslie: I don't think the boards will hold us.

Bobby was talking about having the sky in the classroom. Kate asked him to explain himself

Bobby: We can bring the outdoors indoors to have whatever we want ... Sky ... Clouds

Group 2 - Teacher: Jenny

Children: Edward, Nico, Leo, Henry, Gruffydd, Cathy

Jenny instructed the children to flip through the golf books laid out on the table and look at the picture of the mini golf course.

Jenny: "What do you notice?"

Nico: (Observing a picture in the golf book.) A little thing holding the ball

Jenny: "That's a good observation, Nico. It's called a tee."

Henry: (Observing the mini-golf picture) Here's a ball store. It has all kinds of things in it. It has a pool. It's a vacation.

Jenny: "What happens if the ball falls into the pool?"

Henry: You go get it.

Edward: (Golf book) That's what a whole golf course looks like. There are two ponds.

There's also some flags. There's also some white stuff.

Jenny: "I wonder what the white stuff is?"

Cathy: It's sand.

Jenny: What happens if it goes in the sand?

Cathy: They have to try to not hit it into the sand box. They have to hit it over the sand and into the hole.

Edward: (Observing drawing of golf course) This is really realistic.

Cathy: Yea, it looks like the golf ground that you do golf on.

Cathy: (mini-golf picture) There is a pool. There are lots of Bridges.

Group 3 - Teacher: Christina

Children: Brenna, Susana, Rebecca, Fynn, Ally

Susana: (observing picture in golf book) I thought about sand because a mini golf course has sand, and grass, and a sidewalk. And a flag and rocks!

Day 6 - The pathway with the cardboard blocks, tunnel and gutter (that was built by the children the preceding day) was still in place on the rug in the miniature golf area.

The children continued to interact with it throughout constructive playtime. Children made an obstacle course.

Nico: **I have a good idea to move this right here.** He moves the Eiffel Tower onto the Cardboard runway.

Gruffydd is patiently waiting his turn.

Nico: **Can two people play?**

Jenny decides the holes should be separated if two people were to play safely. Jenny, Gruff, and Nico carefully move the cardboard blocks and other props piece by piece.



Gruffydd: **A tunnel! A tunnel!** Gruffydd thinks out loud. He heads to block area and returns with a wooden arch.

Nico brings back a hollow wooden block and places it a couple feet behind the arch. As Nico takes his turn, he hits the ball again and again. It keeps bouncing off the lower edge of the block. He finally hits the ball through and into the hole to end his turn.

Gruffydd: **I'm gonna try a different one. It's not going up into this.** Gruffydd has realized why Nico was having so much trouble and he removes the block from the path.

Gruffydd hits the ball. It rolls through the arch and down into the ramp where it gets stuck.

Gruffydd: **If I hit it hard it will go out.** [if not] **it gets stuck in the gully.**



Jenny: "What's a gully?"

Gruffydd: **It's a kind of name for this. He points out the place at the bottom of the ramp. If it doesn't go up it goes down. It goes right here, so that's why I call it that.**

Meanwhile some of the children have built an obstacle course in the block area. They make up two rules for the obstacle course.

Rule 1. You must take your shoes off.

Rule 2. You need a ticket.

The children have built a balance beam out of blocks that curve around the outside of the block area. They walk the beam and then up onto the blocks and the low white shelf that line the wall. They then turn in their ticket to Jane and slide down a tube. At

the bottom of the tube Jane hands them a new ticket and they arrive at the beginning to walk the balance beam again.



Jewel: This is an obstacle course, Jenny.
Cathy: Now it's a movie.
Victor: Now it's a movie circus.
Jewel: It's a golf ball place.
Susana: I'm going to show one of the other teachers this tube. This is a fun circus.
Cathy, noticing that most of the preschoolers are playing on the obstacle course, says, Pretty soon the whole school will be over here.

Day 7 - A wooden bridge has been added to miniature golf area. There is a golf ball and club on one side of the bridge and a golf hole on the other side of the bridge.

Kate asks the children, "How can we get the ball from one side of the bridge to other side of the bridge without going over the bridge?" The children are more interested in marching over the bridge than listening to Kate's question. After a while Gryff finally answers Kate.

Gryff - Hit the ball over the bridge.

Kate - "Remember what Dotty said that it would be difficult to golf on the bridge?"

Laura begins to build a block structure with ramps and gutters in the adjacent block area. Kate asks Laura to bring the gutter over to the bridge in the miniature golf area.

Kate - "How can we use the gutter to get the ball from side of the bridge to other?"

Children are stumped. Kate suggests that the gutter go under the bridge to get the ball to the hole on the other side. None of the children place the gutter under the bridge so Kate places the gutter under the bridge. Jewel helps place the hole at the end of the gutter. The children take turns hitting the ball through gutter under bridge to the hole on the other side.



During circle time we addressed the suggestion that Bobby had had when we asked the children what they would like to have in our classroom miniature golf course. He had said, we can bring the outdoors indoors to have whatever we want ... Sky ... Clouds

The teachers asked the whole class "How do you bring the outdoors in?"

Bobby: put paper on cardboard and then color it in. An outside – all the things – We could make a sky, a sun, clouds.

Nico: Golf into a tree house or a doghouse. Not use dogs. The ball can go into the house and down.

Brenna: trees - on the picture.

Ally: Big, big copies of trees.

Bobby: Different kinds of trees, "Make" pretend trees.

Laura: flowers

Ally: tore flowers

Laura: Bee flower

Bobby: Bees

Henry: Bees can go right into the big yellow sunflowers and get bees for their babies.

Cathy: A big tall ramp for the tree house.

Bobby: a super golf machine – the ball can go out by itself – we should make one out of metal

Susana: You can get two ramps and you swing the golf club into the tree house and bring it back down.

Day 8 - In the Art area the teachers asked the children to draw pictures items from outside that they could bring inside for the mini golf course. During morning meeting we reviewed the list of these items that was generated during circle on Monday.



In order to give the children a concrete representation of what they had listed a geranium and a rose were placed on the table. There was also a book on trees and a drawing book with bees in it. Henry used the real life geranium as a model for his drawing.

In the Mini Golf area two new provocations are introduced. Nico, one of our preschoolers, made one of these at home. The other was a piece of Plexiglas placed on four wooden blocks.



Nico brought in a box that he had made at home for the mini golf course. It had a tube, made from a plastic bottle, placed diagonally through holes cut in the box. This quickly became part of the mini golf course

Kate- "What do we do with this?"

Nico - We have to make sure that it is facing a hole.

Abby- It's a hole that goes into a ball.

Victor- Let's test it.



A new challenge of a Plexiglas sheet with 3 holes was added to the mini golf area.



Leo takes a shot at the Plexiglas hole.

Lola created an intricate mini golf horseshoe shaped hole with a gutter and a tube that went up and down on the right side, a long gutter perpendicular to this on the backside and then on the left side another gutter that went up to the GW China bridge and came down in a gutter to Nico's hole that he made out of a box and a tube at home.



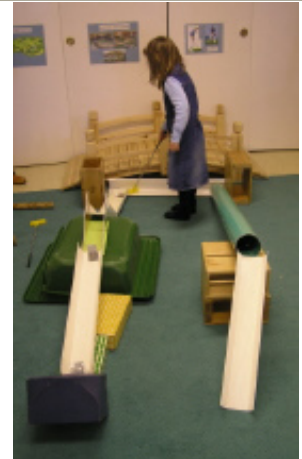
Lola creates a new hole with a gutter and long green tube. It is over 3' high. Lola tries but can't get the ball up the ramp.



Kate asks if she can lower the ramp a bit. Lola nods yes. Kate lowers the structure and Lola takes a shot. It goes up the ramp and down the tube.



Lola keeps adding to the structure. She sets up more gutters and Nico's homemade hole.





The ball rolled out the right. Lola retrieved an extra ramp to block of the opening to the right. Abby replaces the gutter with a large wooden block.




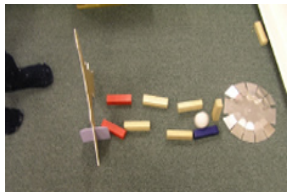
At the writing table some of the children begin making tickets for the mini golf course. Abby - [I'm going to make tickets](#). Abby goes to the writing table and cuts long strips of paper. She "writes" zigzag letters on the strips. Lola gives Kate small wooden cubes "[pour l'achete](#)," or to buy her tickets. Jewel decides she wants to make tickets, too. The children use strips of paper or small wooden cubes to represent tickets.

Dotty asks Bobby, "What do you think an obstacle is?"
 Bobby - [An obstacle is a thing that's in your way.](#)
 Lola's course and the Plexiglas were left up for the next day.

During circle the teachers and preschoolers talked about having a mini golf "celebration." The parents would be invited and hotdogs would be served. The discussion continued around making tickets, signs and a tree house for the course. The conversation was founded on the children's suggestions about the mini golf course.

Day 9 - The Mini golf setup from Tuesday is still set up in the room when the preschoolers arrive in the morning.

	
<p>Leo waits in line with his wooden block ticket.</p>	<p>Jewel and Fynn also wait with their tickets to play golf.</p>

			
<p>Gryff takes aim at the Plexiglas hole while Bart tries his luck on the ramp.</p>	<p>Henry tries his luck on the Plexiglas hole.</p>	<p>The Eiffel Tower has been added to the mini golf course with several tumble tower blocks placed behind it. The goal is to get the ball through the hole under the Eiffel Tower and then knock down the blocks.</p>	<p>Lola has altered the blocks so that instead of knocking down all the blocks at once the ball goes under the Eiffel Tower then between a row of blocks in order to knock down the one standing block before the hole.</p>

At the Art Table the preschoolers begin building a tree trunk out of paper mache and a bucket



During circle the students and teachers continued their conversation about creating a mini golf course. The class was divided into two groups to explore different areas of interest. One group devised structures with the Tumbling Tower Blocks. After the structures were built the children tried to knock down with only a golf ball and a golf club. The other group created an obstacle course that they hoped to incorporate into the golf course.

Day 10 - The minigolf course that was set up on Tuesday is still available to the preschoolers. The Children experiment with the Plexiglas creating barriers and obstacles around the holes in the Plexiglas.



A barrier has been placed around the Plexiglas hole. Leo golfs up the ramp to the Plexiglas.

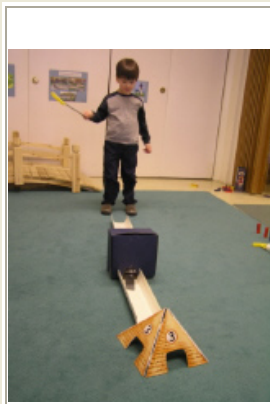
Susana tries to golf up the ramp.

Susana succeeds and cheers.

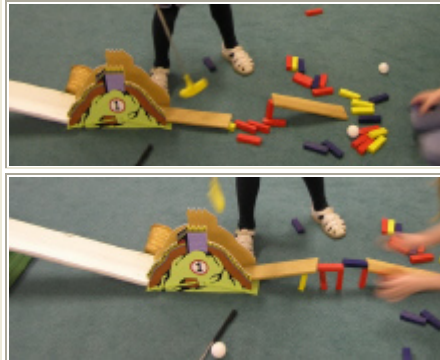
The children add additional props and barriers to the Plexiglas hole.

Day 11 - The pyramid is added to the to Miniature Golf Area. Adjacent to the new Pyramid ramp is the London Bridge ramp. Two of the girls experimented with different ways to set up blocks at the end of the London bridge ramp to find the optimum way in which to knock the blocks down with the golf ball. Victor, in the meantime decides to

create a score card so that the preschoolers can keep score while they are playing miniature golf. A barrier has been placed around the Plexiglas hole. Leo golfs up the ramp to the Plexiglas.



Henry rearranges the course to accommodate the pyramid



Two of the girls experiment with building up and knocking down the blocks



Victor makes a scorekeeper card in the art room and later placed it in the MG course

At the Art Table the children begin to paint the paper maché tree trunk for the miniature golf course. Small bowls of orange and blue paint are set out with our tree. The children mix the colors to get variations of brown paint.



Victor mixes the orange and blue paint to make brown.
Victor: **It takes mostly blue to make dark brown.**



Lola and Rebecca paint the tree trunk brown.



Brenna and Jewel put the finishing touches on the tree trunk.

During circle time the preschoolers were separated into two groups based on their ages. Dotty spoke with the older children about the mural. She began by showing them posters of both a city mural and an ocean mural. She then asked the children about what they would want on their mural.

Dotty asks the children, "What do we need for our mural? How can we bring the outside in?"

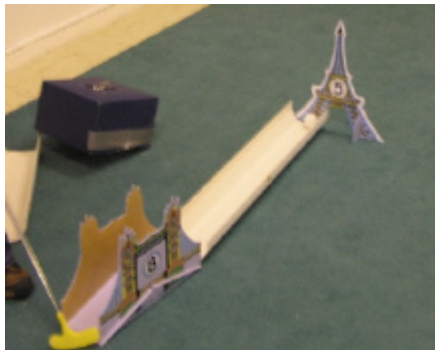
The children made the following suggestions:

Laura – **water**

Henry – sun
 Bart– Ground, sky, grass
 Nico – draw a picture of a tree house
 Bobby – worms
 Cathy– fish
 Lola – un lac (a pond); Nuage dans la ciel (clouds in the sky); Grenouille (frog); Tetar (baby frog); Nenufar (lily pad flower)

Henry told Dotty that he's really good at drawing suns.
 Laura said that she would draw the ocean.
 Bobby said that he would draw worms and bugs on the ground.
 Victor said that he would draw a bridge.
 Cathy said that she would draw fish.

Day 12 - In the miniature golf area Bart rearranges miniature golf props to try to knock down the Eiffel Tower



Bart: If you knock the tower down you get 5 point
 cause it says 5 points (the Eiffel Tower has a number
 5 written on it). The ET is up on the bridge.
 Henry: And that one is 8 points cause it says 8 (The
 London Bridge has the number eight written on it).
 Bart moves the Eiffel Tower closer
 Henry begins to swing the club.
 Bart: I'm gonna be the guy who tells you how many
 points you got.
 Bart then moves the Eiffel Tower much closer to the
 gutter. Kate asks him why he did this.
 Bart – You first have to get the ball through there
 (referring to the tunnel that goes underneath the
 Eiffel Tower) and then you knock the Tower down.

At the Art Table the preschoolers uses sponges to put black, brown, and white paint on the tree trunk. After they complete this task the preschoolers begin to paint the doghouse.



Lola uses a sponge to add texture to the tree trunk.



Victor, Brenna, and Abby begin to paint the doghouse for the Mini Golf Course.



Susana and Cathy paint the doghouse.

Dotty has brought several children into the Art room to plan the mural that will "Bring the Outside in." She has invited the "Ground crew," the preschoolers who were interested in creating ground objects for the lower portion of the mural. First the children drew pictures of what they wanted to put on the mural.



Bobby draws bugs and worms on the ground with the sun above them



Jewel begins her drawing of a tree.



Dotty consults with Jewel about her drawing

At Circle Time the children shared their artwork. Afterwards Kate read a book about a girl who is very good at balancing things. The book entitled, "The Balancing Girl" by Bernice Rabe, tells the story of a girl in a wheelchair that is very good at balancing dominoes. After sharing the book the class talked about dominoes while Kate showed the preschoolers how to carefully line up dominoes.

Day 13 –In the miniature golf area Kate has set up two hollow wooden blocks with three rounded gutters running through it. Cathy rearranges the minigolf props so that it makes more sense to her. Kate asks her about it.

Cathy – *I put the tube under the tube then I put the big number one (the Great Wall of China) beside of it and then we got some blocks to stop the ball from moving all the way over there.*

Bobby takes the Eiffel Tower and places an arc directly in front of the tunnel that goes underneath the arc thus blocking the hole thru the Eiffel Tower. He then carefully places dominoes on the other side of the arc. Kate asks him his strategy:

Bobby - *Ball in through Eiffel Tower over arc and knock down dominoes*

				
Rebecca golfs through Cathy's altered course	Rebecca watches her ball as it goes through the tunnel	Bobby carefully places dominoes behind the arc	Ally helps Bobby with the dominoes	Bobby's completed mini course.



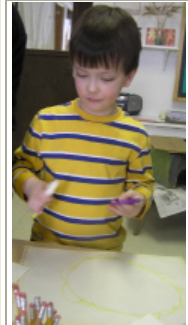

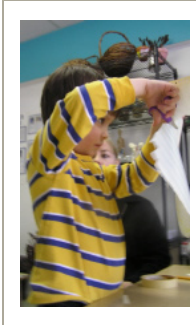
In the art area: The children were painting cardboard cloud cut outs the color white for our miniature golf course. As they were painting the clouds Bobby and Laura had a discussion about clouds.

Bobby - [Bringing outside inside is very good for a mini golf course.](#)



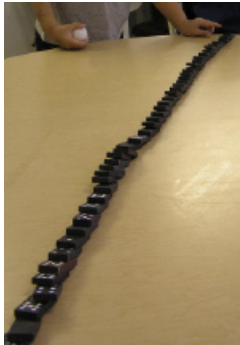
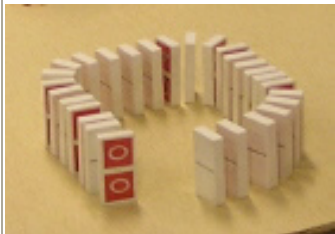
Bobby- [Some clouds make rain.](#)




Laura - [Yeah, gray clouds do. Like today, it's going to rain and snow and then it won't be spring anymore.](#)

At Time Circle time Dotty took five of the children into the art room to work on the mural.

				
Dotty talks to the children about the mural. So far only some fish and the pond have been drawn	Lola draws a fish to add to the pond.	Henry finishes drawing his sun	He begins to cut his sun out.	He holds up his sun and cuts around it.

The rest of the children were divided into four groups. Each group had a set of dominoes and a plastic golf ball. The children took turns lining up the dominoes and knocking them down. The children were completely engaged in this activity.

			
Fynn stands the dominoes up	He and Bart line the dominoes up in along row.	Bart knocks the dominoes down as Fynn watches.	The preschoolers place some of the dominoes vertically in a circle.

		
Jewel and Gryff line their dominoes up in a curvy line.	Rebecca lines their dominoes up vertically in an arc as Shay and Timothy watch. Timothy - <i>We have to be as still as the statues 'cause they always fall down.</i>	Rebecca knocks the dominoes down. Shay moves and Timothy grabs her arm and says, <i>No, you have to be as still as a statue.</i>

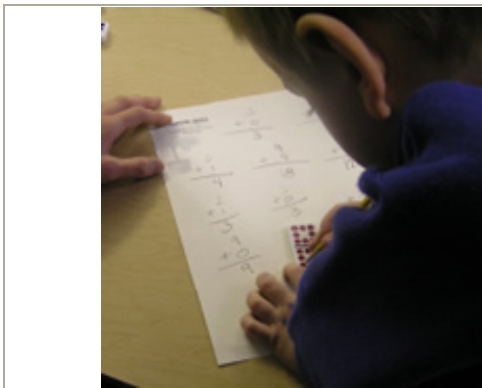
Day 14 - In the miniature golf area holes made of wooden planks are added to the area.

In the art area the preschoolers add batting, Styrofoam peanuts and tissue paper to the white cardboard clouds.

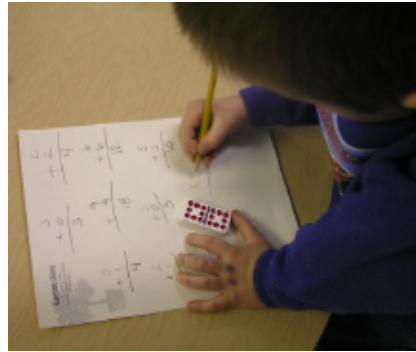
Day 15 -A frog hole is added to the miniature golf area. The preschoolers use an extra set of props to build onto frog holes.

Victor and Bart show Jenny where to hang the clouds over the miniature golf area.

At the writing table, Jenny spoke with the preschoolers about the dominos. Jenny showed the children how to add the number of dots on the dominos. She sat with Abby, Victor, Bart, and Henry and together they began calculating equations with the dominos. Jenny and the preschoolers counted the dots on top and wrote down that number with a plus sign below it. They counted the number on the bottom and wrote that number below the top number. They drew a line for equals and then counted the dots on the whole domino. They wrote the sum below the line. The children were all very interested in the process and showed pride in their new skill.



Victor counts the number of dots on the domino.



Victor then writes this number down on his paper.

Day 16 - The newly painted doghouse is added to miniature golf course.

In the art room the children begin painting the background of the mural. The canvas is divided in two. The preschoolers paint the top half blue, to represent the sky, with paint rollers.



The mural before the sky is painted blue.

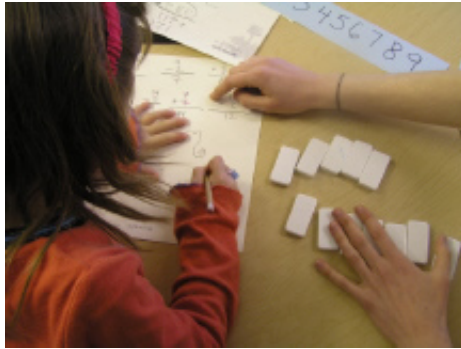


Jewel painting one half of the canvas blue.



Bobby painting the sky blue.

Jenny continues to solve addition and subtraction problems with Lola, Leslie, Victor, and Bart.



Jenny points to the addition line in the preceding equation



Lola then makes the addition line on her new equation.

Day 17 - Domino math continues to be explored in the writing area.

During circle time the preschoolers drew pictures of golfers with the help of their "modeling" classmates. The teachers had noticed that when the preschoolers were drawing golfers it was usually a child facing forward with a golf club. To provoke an understanding of how a golfer really positions his/her body the teachers asked the children to take turns modeling the position of a golfer swinging his club. The children drew the model holding the golf club. Teachers scaffold the children to help them understand and illustrate the position of the golfer.



Abby models the position a golfer takes as he swings his golf club. The preschoolers draw pictures of Abby posing as a golfer.

Day 18 - A knock down center is added to circle rug, as both a diversion from the miniature golf course and also to revisit the preschoolers' original fascination of knocking down items with balls.



Brenna swings the tethered ball at the cardboard blocks in the Knockdown Center.



Ally waits with the tethered ball while Gryff and Bobby rearrange the blocks domino style.



Gryff and Bobby cheer as the blocks collapse against each other, just like dominoes.

In the art room the children drew, traced, and cut out cardboard clouds. They then traced these onto the painted blue mural and painted them white. During Circle the class was divided into three groups. Each group was given a gutter, blocks and a hollow golf ball, a normal golf ball, and an empty or full egg to roll down the ramp. The children practiced having their "ball" roll down the ramp to try to knock down the blocks at the bottom of the ramp.



Nico rolls his empty egg down the gutter toward the blocks.



Rebecca rolls the hollow golf ball down the gutter toward the blocks.



Bobby's egg falls apart at the end of the gutter but he does succeed in knocking down the blocks.



Victor rolls the hollow golf ball down the ramp and knocks down the blocks.

Day 19 - During circle Dotty gave a demonstration on knocking down blocks using a gutter with a hollow and solid golf ball. The children drew pictures in their journals about how they would knock down blocks with both a solid or hollow golf ball and gutters.

Day 20 - In the art room the preschoolers continued to work on the mural. Now that the sky has been completed the ground crew begins to paint the hills and the grass on the mural.



Circle was held outside on a tarp. As circle commenced Dotty reminded the children about their original ideas for the golf course, and their notion of "bringing the outside in." Dotty mentioned that now that it is springtime weather we could actually golf outside. She talked about our pending field trip to an actual miniature golf course. She mentioned that perhaps we could open part of our miniature golf course outside on our playground and maybe even have some hotdogs at our snack bar. Dotty then reread to the children their previous words about golf course ideas, and asked them to brainstorm a little bit more about what we could have in our outside golf course.

Bobby - " [Obstacles are things that get in the way !](#)"

Edward, who was wondering about how to create a pond in our golf course, said - " [When it rains in spring we can make a big hole and the rain will fill it up! "](#)

Bobby agreed with Edward's idea.

Gruffydd - " [I would like to have a diving board in the pond we create .](#)"

Dotty - "We could make a diving board and people to go on the diving board with cardboard."

Jewel suggests putting a box inside the pond to collect the water.

Nico, heeding a warning about a hole in the ground, says, " [We can make a hole and dig it very deep, and when we want, we can fall in there .](#)"

Henry, referring to the pond as a big hole in the ground, says, " [Try to hit the ball in the hole in the ground .](#)"

Dotty - "That can be like an obstacle, you can hit your ball over it or even into it."

Gruffydd - " [Maybe we can make a cardboard train !](#)"

Dotty talked to the children about how every place has a name, and suggested that we give a name to our miniature golf course. She asked the children if they had any ideas for a name.

Nico - [Bumblebee Golf Course](#)

Gruffydd - [Gumball Golf Course](#)

Henry - [Pinball Golf Course](#)

Cathy- [The Renaissance Golf Course](#)

Edward- [The Golf Club, it can be like a golf club](#) (one that you hit the ball with) [or a club](#) (where you play golf)!

Victor - [The Dunkin' Golf Course](#)

As Circle ended and the children proceeded to walk toward the playground Dotty asked all the children to look at the "fort" on our own playground. She suggested that perhaps when we create our own outdoor miniature course we could use this fort as the tree house that Nico suggested we build as part of our course.

Day 21 -Constructive play - Based on the children's suggestion of building a pond outside for the miniature golf course the preschoolers dug two holes in the dirt of the playground to see if water would remain in the hole.



Nico, Leo and Tim dig holes in the ground.



Timothy points to a root in his hole.



Bobby, Victor and Nico examine the hole they have dug.

Day 22 - During constructive play time Kate invited the children to join her outside on the playground.

It was a beautiful day and Kate had previously set up a mini golf course outside with two interconnected bridges and a ditch connecting the two bridges so that one child could shoot the ball down one path. There was an additional ball contraption on the cement. Kate asked a few of the children if they would like to go outside.

Victor said (as he was putting on his jacket) – " [A T is for real golf not for mini golf](#) ."

As the children moved outside Edward asked – " [Are there teams involved?](#)"

Edward said that he wanted to have a practice hole. Kate set up the additional contraption on the wood chips so that the children could practice with it. There were two areas to golf. Gryff suggested that the preschoolers combine the two holes so Leo, Laura, Gryff, Ally and Jewel dug a trench to combine the two holes.

Laura asked " [How do you go through it?](#) "

Laura then began to guide the children through the drenches using a mini rake to clear the woodchips out of the trench. Some of the children helped her do this.



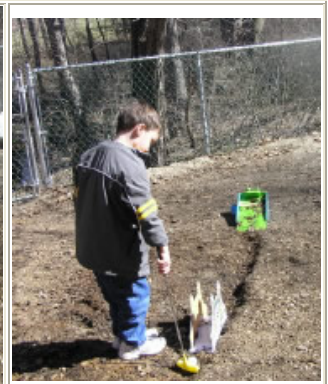
Laura clears the trench for the golf balls.



Gryff waits his turn while Leo and Jewel golf along the trench.



Victor scoots his ball from one bridge to the next.



Bobby pushes his ball onto the bridge with his golf club.

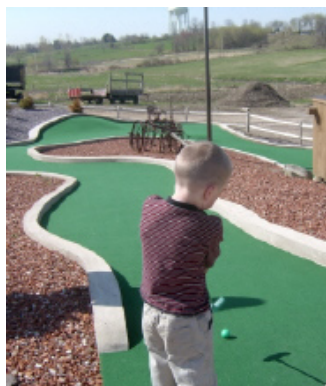
Day 23 - During constructive play time the preschoolers painted two cardboard box structures that represented a tree and a tent. These two boxes would eventually be part of the miniature golf course after they were transformed into a bear's cave and lion's den.

During Circle Time the preschoolers made predictions about what was going to be at the Miniature Golf course, at McCray's Farm, tomorrow.

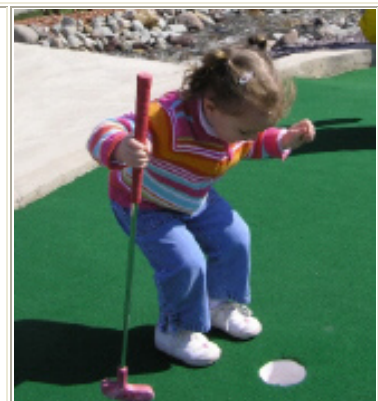
Day 24 - We knew that before we could actually set up our own miniature golf course it would be necessary to visit an actual miniature golf course. We invited the parents to join us and carpoled to McCray's Farm in S. Hadley. The preschoolers were truly intrigued with the course. They were thrilled at the opportunity to actually hit a golf ball with a golf club down a path to a hole.



Victor positions his golf ball while Ally looks on.



Victor uses his club and hits his down the hill ball towards the hole.



Ally is jubilant to see that she hit her ball into the hole.



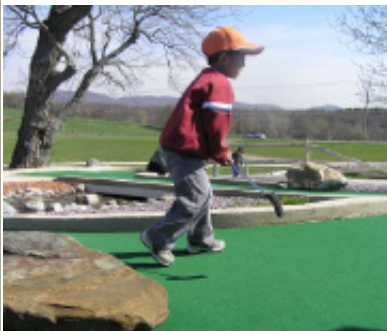
Nico hits his ball down a hill.



Lola guides her ball toward the hole.



Jewel moves with her club toward her ball.



Timothy runs towards his ball.



He closes in on his ball that is wedged under a rock.



Timothy uses his club to move his ball away from the rock.



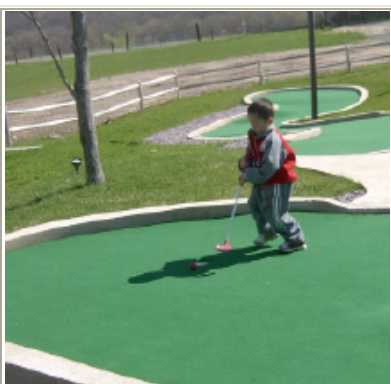
Finn's mother shows him how to hold his golf club.



Leo aims his ball toward the hole after golfing over the bridge.



Victor stops to take a picture of a rock wall on the golf course.



Leo reaches the top of the last hill and aims his ball toward the hole.



Nico watches as golf balls disappear after traveling through a ditch into a final hole.



The preschoolers pose as golfers with a golfer statue in front of the course.

Day 25 - During Morning Meeting the children and teachers revisited the field trip to the Miniature Golf Course at McCray's Farm through both videotape and conversation. The teachers and children discussed the logistics of integrating some of the features of McCray's golf course with the preschoolers' golf course.

During constructive playtime Jenny helped the preschoolers create a model of the hill that was at miniature golf course at McCray's Farm. The children took turns hitting their golf balls over the hill.



Jenny secures the back wall on the manmade hill.



Leo golfs over the hill while his classmates wait in line.



Jewel tries to hit her golf ball over the hill.

In another part of the room some of the children painted paper green for the leaves on the top of tree.

In the Art room preschoolers continued to work on the mural while Bobby painted the lion for his lion's den.



Bobby shows his teddy bear the cardboard box that will be disguised as a lion's den.



Bobby has his teddy bear help him paint a lion on the box that he will transform into a lion's den.

During circle time the children and teachers formed specific groups to work on the golf course

Mural – Teacher: Dotty; Children: Leslie, Lola

Signs – Teacher: Linda; Children: Rebecca, Brenna, Gryff, Jewel

Painting paper green for leaves of the tree - Teacher: Liz; Children: Leo, Ally, Susana

Lion – Teacher: Jenny; Children: Bobby

Tree – Teacher: Christina; Children: Nico, Bart

Score Sheets – Children: Edward, Laura, and Victor

Day 26 - During constructive playtime some of the preschoolers painted the backside of their signs. A few of the children assembled the tree with their teacher, Christina.



Victor and a classmate put the finishing touches on the leaves of the tree. The children created this tree as they endeavored to bring the outside into the classroom. This tree will later be integrated into the miniature golf course.

In the art room Laura, Bobby and Jewel continued to paint the mural with Dotty.



Jewel is in the art room painting a duck inside of the pond. First she drew the duck on paper, then copied the drawing onto the mural. She is now outlining the perimeter of her duck before she paints the whole body.

Bobby's completed lion sits in the background.

During circle time the children made observation sheets of McCray's mini golf with Lily's (2nd grade) template.

Day 27 - A wading pool and the completed doghouse were added to the miniature golf area. The preschoolers set up ramps that went through the doghouse that was inside the pool.



Bart connects a gutter that adjoins the ramp from the side of the pool to the ramp that is going through the doghouse.



Victor hits a ball up the ramp toward the tunnel that runs through the doghouse



Victor places a flag in the ball catcher at the opposite side of the doghouse.



The preschoolers sit in line and wait for their turn to hit the ball through the tunnel beneath the doghouse.

In the art area the children began painting miniature golf balls. Victor had painted some of his golf balls at home and his mother had shared this information with us. The children and the teachers agreed that we should paint our golf balls too so that the golfers would be able to tell their balls apart from the other balls.



Lola mixes paint to color her golf ball with.



The children sit together and paint their golf balls.



Vic mixes his colors before he applies them to his golf ball.

During Circle the class revisited Victor, Bobby, Leslie and Bart's original drawings/plans for the miniature golf course. The teachers also introduced Gryff's return the ball golf apparatus that Gryff had brought in from home.



Jewel adds force and tries to knock the board with the ball that has been automatically returned to her with the aid of Gryff's return the ball apparatus.



Jewel succeeds in knocking down the board with her golf ball.

After the preschoolers leave for the day the teachers attend a staff meeting. They discuss which teachers will co-construct the various holes with the preschoolers.

Proposed Mini Golf Course – “The Golf Club”

Suggestion: Have an Introduction at each hole with a bit of background on the origin of its construction with photos and original art work, if applicable.

Golf Hole 1 – Nico's Pathway – Bridges and Pathways with tree stump (made from bucket)

Location: Circle Area

Teacher co-planner: Kate

Golf Hole 2 – Tree/Bears Den tunnels

Location: Block Area

Teacher co-planner: Christina

Cross over bridge to:

Golf Hole 3 – Hill outside (like at McCray's)

Location: on hill outside of play area

Teacher co-planner: Jenny

Golf Hole 4 – Wading Pool, water, gullies

Location: outside playground near entrance to fence

Teacher co-planner: Linda

Golf Hole 5 – Knock down and lose ball (under Plexiglas?)

Location: outside near or under climbing structure

Teacher co-planner: Dotty, Liz

Hole/Station 6 – McCray's Miniature Trip Golf Slide

Location: office?

Teacher co-planner: Kate

Day 28 - Some of the children continued to paint miniature golf balls in the art area while others decorated individual visors for Mini Golf Course.



Fynn paints his golf ball.



Jewel paints her golf ball.

In the miniature golf area the children were captivated by Gryff's return the ball golf apparatus.

Day 29 - In the art area the preschoolers continued to paint miniature golf balls, decorate individual visors, and create paths for the course with paper bags. Some of the preschoolers began to make flags and signs for the golf course.



Bobby paints his visor.



Ally draws the diagonal line for her flag using a ruler.



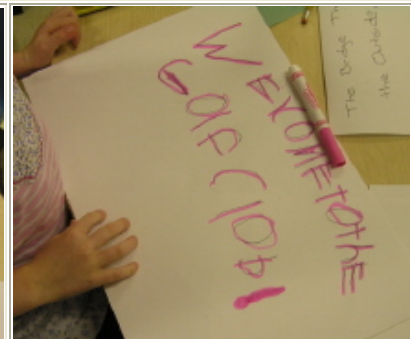
Liz helps Henry hold the ruler so that he can draw a flag.



Lola darkens the letters that she has copied for a sign about the bridge that will connect the outdoors to the indoors.



The text that Lola has copied reads, "The Bridge that Brings the Outside In."



Leslie creates a sign that reads, "Welcome to the Golf Club."

In the art room Laura outlined the lion while Edward painted the bear on the cardboard box that would become the bear cave.



Edward paints the bear that he drew for the bear cave.



Edward paints leaves onto the tree that his bear is sitting on.

During circle shared her blueprint of the proposed miniature golf course with the preschoolers.



Kate shares a blueprint for the golf course layout with the preschoolers.



A close up of the golf course layout.

After discussing the layout for the golf course the teachers divided the children into groups based on the particular golf hole that each child was most interested in.

Golf Hole 1 – “Nico's Pathway” – Kate - Nico, Lola, and Gryff

Golf Hole 2 – “Tree/Bears Den tunnels” - Christina – Bobby, Edward, Abby

Golf Hole 3 – “Hill outside (like at McCray's)” - Jenny – Fynn, Eric, Brenna, Simone, and Rebecca

Golf Hole 4 – “Wading Pool, water, gullies” – Linda - Bart, Cathy, Victor, Susana

Golf Hole 5 – “Knock down and lose ball” - Dotty, Liz - Leslie, Laura, Jewel

Day 30 – The children completed their artwork for miniature golf course.



Victor paints the words, he has written in pencil, “[Hot Dogs and Hamburgers](#)” for the Snack Bar in the miniature golf course.

The golf course was once again revised. The final course would be set up with 5 holes.

Hole # 1 – Knockdown – set up in the Art Room

Hole # 2 – Roadways and Pathways – set up in Block area

Hole # 3 – Tunnels – set up in Circle area

Hole # 4 – The Hill – set up outside on the hill next to the playground

Hole # 5 – Into the Pool – set up outside in the playground

Day 31 - Opening Day

The children arrived, along with some parent helpers, at 9:00. During morning meeting we reiterated which children would be helping to set up each hole. The parents, friends and relatives arrived at 11:00 to play miniature golf in the golf course created by their children. At 12:00 the families gathered in the converted play/picnic area for a post-game barbecue.

WELCOME TO THE GOLF CLUB!

- Please help your child find his/her scorecard, golf ball & visor
- We'll be sharing golf clubs, please pick one up at each hole.
- Grown-ups are welcome to take a white golf ball to play with.

VISIT ALL FIVE HOLES, IN ANY ORDER

HOLE 1 - KNOCK DOWN, LOCATED IN ART ROOM

HOLE 2 – Pathways, located on circle time rug

HOLE 3 – Lions, Bears, & Trees in block area

HOLE 4 – Up the Hill, located outside, around the corner to left

HOLE 5/18 – The Hole You Lose Your Ball, located on playground

- To keep "score," children will rubberstamp their card each time they complete a hole.
- Each hole should have no more than two players golfing at a time, please move around to other holes to minimize waiting – please leave your golf clubs at each hole.
- Please encourage children to set items back up for others after completing the Knock Down Hole in Art Room.
- Please remind children to leave their ball to dry after completing Hole 5/18. Children's balls can be picked up after lunch, and can be taken home.
- Be sure to check out the documentation describing the children's ideas and thinking regarding the creation of each hole (easels are located at each hole with this info)

ENJOY GOLF 11:00 – 12:00, ENJOY LUNCH 12:00 – 1:00

Hole 1: Knock Down

Hole # 1 Knockdown

The mini golf course was conceived in early March as a result of an attempt for redirection from a teacher. On this particular morning many of the children were gathered in the block area building an enclosure. Kate noticed that some of the children, Victor and Bart in particular, were really more interested in knocking down the walls than building them up. In order to minimize the amount of children in the block area and to focus on the children's true interest Kate built a cardboard block structure in the circle area and invited the children to roll balls at the structure in order to knock it down. The children became completely engrossed in this activity. When Laura realized that one of the balls was a golf ball she mentioned that she had played miniature golf at the place with the bumper boats. Many of the children excitedly said that they too had played miniature golf. In lieu of the animated miniature golf discussion, Kate suggested that the children and the teachers at the school make their own miniature golf course. The children loved this idea. Christina, one of the student teachers, picked up on the enthusiasm and invited Victor, Bart, and Leslie into the art room to begin designing a miniature golf course. Recognizing that the children were completely intrigued with building their own mini golf course the teachers began to co-construct a golf course with the preschoolers.

As the construction of the golf course commenced different materials were introduced. In order to challenge the velocity and momentum of a golf ball we offered the children various materials to experiment with. We began with small cube blocks. The children stacked these up into small towers then rolled a ball down a gully to try and knock the tower over. We introduced dominoes to the children and had them experiment with them. The children would line the dominoes up on a table and then touch the end domino and see the whole row of dominoes fall down. These dominoes were also integrated into the mini golf course. A knock down center was created and the children would toss a ball tethered to the ceiling at a pile of cardboard boxes. Cardboard buildings were also constructed by the children and were knocked down by the golf balls.



The preschoolers experiment with dominoes, which will eventually be integrated into the minigolf course.



Nico tries to knock the stack of blocks down by rolling his ball down a gutter.



Brenna tries to knock down the cardboard blocks as she swings the tethered ball at them.

As the golf course grand opening approached Gryff's mother gave us a new golf apparatus to experiment with. This little machine sucks the golf ball into its base and then ejects it. The children were captivated. Bobby described this machine as "a [super golf machine – the ball can go out by itself. We should make one out of metal.](#)" Susana responded by saying, "You could get two ramps and you swing the golf club into the tree house and then you bring it back down."

The children designed and created the various cardboard structures for the knockdown hole.

Set up for Hole 1: Knockdown

On opening day Susana, Cathy, Victor and Jane (a teacher) set up the course for the Knockdown Hole in the art room. They integrated Gryff's golf machine, various gutters and many cardboard buildings and figures that they had previously constructed. The object of the Knockdown Hole was to hit the ball in the gutters, through the tunnels, and down to the various cardboard figures to be knocked down. One component of this course was hit the ball into Gryff's return the golf ball machine and then have the expunged ball knock down the blocks and/or figures in front of the machine. Another goal was to hit the ball up a ramp and then have it knock down an object after it rolled back down the ramp.



Susana, Cathy, Victor and Jane set up the Knock Down Hole.



Overview of Knock Down Hole



Cardboard buildings and figures made by the preschoolers to be knocked down.

Hole 2: Roadways and Pathways

Hole #2 Roadways and Pathways

Nico was completely intrigued with the concept of a classroom miniature golf course right from the start. He built an elaborate pathway, out of cardboard blocks, that lead up to one of the golf holes. He spoke of the need to have a tree house and a doghouse in the golf course like the one he had at home.



Nico and Leo construct a pathway out of cardboard blocks.



Gryff golfs his way down the pathway.



Abby paints the doghouse for the course.

Lola was fascinated with the tubes and gutters. She loved the challenge of making the balls go up a straight incline through the hole and then back down the other side.



Lola shoots a ball up the gutter and down the tube of her addition to Nico's pathway.



Susana cheers after her ball makes it up and down Lola's incline.

As we discussed plans for building our golf course we asked the children what we would need to do. Bobby said that we needed to bring the outside in. We already had plans to construct a tree and a doghouse to incorporate Nico's vision for our course. Bobby's suggestion furthered our impetus to incorporate typical outdoor items as part of our indoor golf course.



Rebecca puts paper mache on a big bucket that will become the tree stump.



Brenna and Jewel paint the tree stump.

Set up for Hole 2: Roadways and Pathways

On opening day Nico, Lola, Gryff and Kate set up the course for the Roadways and Pathways Hole on the circle rug. The children included many of the props, such as the doghouse and tree stump, that had been designed by them. This is the area in which the outside had been brought in. Note the clouds hanging from the ceiling and the mural of a golf course on the rear wall.



Lola and Nico lay down the cardboard blocks for the pathway.



Nico adds the doghouse to the pathway.



Kate explains that the walls to the pathway need to be straight.



Gryff points to the toy puppy that belongs with the doghouse.



Nico and Lola look over the course.



Nico tests the course as Lola looks on.



Nico grabs for his ball that is lodged in the doghouse.



Overview of the Roadways and Pathways golf course.

The guests arrive.

At 11:00 relatives and friends of the preschoolers arrived at the school to play golf. The goal of Roadways and Pathways course was to hit the ball along the walkway through the doghouse, around the corner into the gutter, around another corner, then up and over the tree stump, down the gutter, around the corner and into the pipe and ultimately ending in the golf ball catcher.



Nico and his mom read the Introductory sign.



Jewel and Christina golf around the course.



Henry waits while his dad takes a turn.



Gryff explains the course his mom and dad.

The Mural

In keeping with the children's idea of "bringing the outside in," an invitation was made to any interested children to visit the art studio to create a mural that looks like outside. Children brainstormed together what the picture on the mural could be. They also drew their ideas.

Cathy: I want to make five Clown Fish swimming in a pond. They'll be happy to be there just like in Finding Nemo.

Victor: There should be a golfer on some grass and maybe a bridge.

Henry: I can make the best sunshines. Let's make a sunshine in the sky. You need sun to golf; we can't do it in the rain.

Bobby: There should be flowers. The bees will help pollinate them. They get the nectar from flowers.

Lola: I can make a flower and a butterfly too.

Leslie: I can make a butterfly and help with a snail.

Laura: I can make flowers. I know how to use scissors. (Laura helped several children cut out their drawings for the mural.)

Nico: We need trees and maybe a tree house at our golf place. (This became a separate project.)

Jewel: I can make a duck. She'll go in the water and swim.

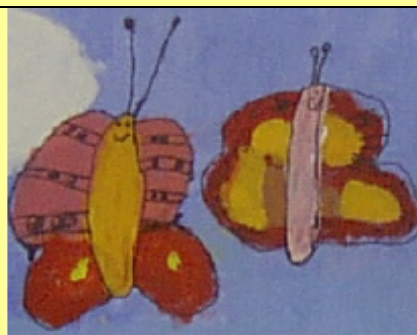
During the next several weeks' children transformed their drawings to the canvas and painted them. Many other children came in to help paint the sky blue, trace and paint the clouds white, and paint the grass green. Children painted the grass green using the edge of cardboard dipped in green paint to create the vertical lines.

With quiet music playing in the background, children were encouraged to slow down and try their best. Sometimes drawings were made several times before they were large enough to be transferred to the mural. Emphasis was placed on learning various painting techniques and using different types of brushes to complete each piece.

This was a joyful collaborative project – rich with wonderful conversation, creativity and learning.



Lola's drawing of a butterfly.



Lola's painted butterflies on the mural.



Another of Lola's butterflies.



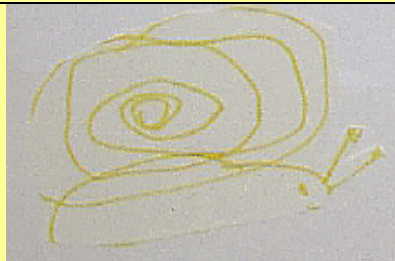
Jewel's original drawing of a duck.



Cathy's drawing of a fish.



The duck and the fish transferred on to the mural.



Leslie's drawing of a snail.



The snail on the mural.



Henry's drawing of sunshine.



Sunshine on the mural.



Lola's drawing of a boy golfer.



The completed mural.



Lola's drawing of a girl golfer.

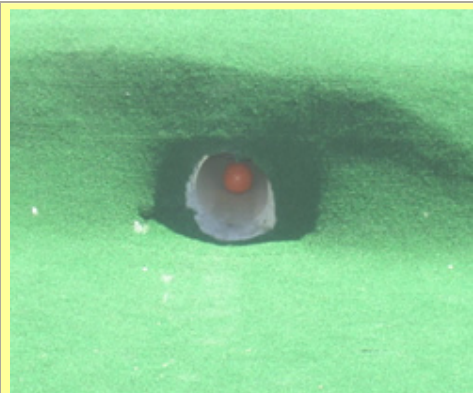
Hole 3: Tunnels

Hole #3 Tunnels

The children were fascinated with the tunnels at McCray's Farm. The ball would disappear into a tunnel and the children would excitedly run to the end to watch the ball reappear.



Leo looks for his ball that has disappeared into a tunnel.



The golf ball appears in the tunnel.

The first tunnel came from a provocation set out by Dotty. She asked the children what we could do with a large box. Edward thought it could be a bear's cave and Bobby and Laura thought it should be a lion's den. Using the "How to Draw Animals" book the children first sketched their pictures on then enlarged them on the box. They painted in their sketches and then added the details.



Bobby drawing the lion for the lion's den.



Vic painting the tree.



Edward painting the tree for the bear cave

The second tunnel came from the idea of "bringing the outside inside." Nico thought we should have trees in our golf course. When it came time to draw a blueprint for the tree Nico was frustrated because he did not think he knew how to draw a tree. Bart showed Nico how to first draw a rectangular trunk and then add a bushy top. With a little help from his older classmate, Nico was able to successfully sketch the design for this tree.



Bart's drawing that illustrates to Nico how to draw a tree.



Nico's sketch of the tree.

Set up for Hole 3: Tunnels

On opening day Edward, Abby, Susana, Victor and Christina set up the course for the Tunnels Hole in the block area. The children included many of the props that they had constructed, such as the tunnel, which was both a lion's den, on one side, and a bear's cave on the other side. The tree that the preschoolers had designed and built was also included in this course with a tunnel going through it. Note the detail on bear's den sign.



The children gather and lay down blocks to use as a roadway for the tunnels course.



A close up of the bear's cave drawing including various flowers, insects and spiders climbing on or near the tree.

The guests arrive.

At 11:00 parents and friends arrive to try their luck getting their ball through the various tunnels of the Tunnels Hole. The goal of the Tunnels course was to hit the ball through a pipe under the tree around some rocks then through the tunnel beneath the bear's cave/lion's den to the ball catcher on the other end of the tunnel.



Overview of the Tunnels course.



Ally pauses and waits for Laura to shoot her ball through the tunnel under the tree.



Nico shoots his ball under the tunnel beneath the bear's cave.



Jewel walks away from the Tunnels hole with her scorecard.

Hole 4: The Hill

Hole #4 The Hill

The Hill at the McCray's Farm was perhaps the most challenging hole for the children. Some children pushed the ball up using the golf club like a hockey stick and the others practiced hitting the ball harder and harder until it made it to the top. Back at school we recreated the hill using wooden blocks and ramps.



The Hill at McCray's Farm.



Leo golfs over a replica of the hill from McCray's.

Set up for Hole 4: The Hill

Shea, Jenny, Brenna, Leo, Rebecca, and Fynn set up the course for the Hill. They loaded bricks (wooden blocks) into a wagon and pulled these out of the classroom, up the gravel road and onto the side of the hill. They then laid the bricks in parallel rows up and around the hill to form the perimeter for the walkway.



Shea pulls a wagon full of bricks with help from Leo and Rebecca.



Brenna takes the handle of the wagon while her classmates help her along.



Shea guides Leo, Rebecca and Brenna as they lay down bricks.



Jenny helps the preschoolers align the bricks.



Fynn and Rebecca head up the hill with the bricks.

The guests arrive.

The Hill was the golf hole that was between the parking lot and the play area of the school. Many of the families started off playing the game at this hole. The goal of the Hill course was to hit the ball up the hill around the corner and then back down the other side. At the completion of the Hill the children would stamp their scorecard and thus record the completion of this hole.



Victor hits his golf ball up the hill.



Jewel scoots her golf ball around the corner at the top of the hill.



Fynn and his mom pose for a picture as they await for their turn.



Fynn golfs his ball down the hill.



Susana begins to golf up the hill while Timothy waits behind her. Susana's mother and her younger sisters watch. Christina helps the children get started.



Gryff picks up his ball at the bottom of the hill while his dad continues golfing behind him. At the table Edward, Rebecca and Rebecca's mom stamp their scorecards.



Bobby stamps his scorecard after he has completed the Hill course.



Bobby's sister Ally stamps her scorecard with a little help from her parents.



Nico stamps his scorecard with a bit of assistance from his mom.



Abby and her dad stamp Abby's scorecard.

Hole 4: Into the Pool

Hole #5/18 Into the Pool

From the earliest day of our miniature golf inquiry, the children were very interested in adding a pool to the golf course. The idea took off on March 3rd. At circle time the children and teachers co-dictated a story about a brother and sister playing mini-golf for the first time. Victor said there was a pool at the mini golf course and this idea was repeated over and over. When we arrived at McCray's Farm we were delighted to find there was water!

With the help of the children we decided that the pool would be the hole. Henry loved the idea of using a net to scoop balls out of the water.

The tunnel leading to the pool was inspired by Hole 18 at McCray's Farm, where the children delighted in watching their balls roll down the gutter and then "disappear" into the mini golf shack.



Digging the hole.



The water and disappearing ball at McCray's.

Set up for Hole 5/18: Into the Pool

Gryff, Henry, Leslie, Laura and Leo helped Dotty and Linda set up the Into the Pool Course. This course was set up on the playground. A wading pool was immersed in the ground at the end of a bridge.



Dotty, Linda, Leslie and Laura set up the Into the Pool bridge.



Gryff tests the scoop while Henry waits.



Overview of the Into the Pool course

The Guests arrive.

The goal of the Into the Pool course was to get the ball around the big rock, over the bridge and into the pool. Then the golf ball was to be scooped out of the water using a fishing net. This hole was numbered 5/18 because it was representative of Hole 18 at McCray's' in which the ball disappears at end of the course.



Lola golfs over the bridge while Leo awaits his turn.



Eric's brother scoops the golf ball out of the pool. Note the frog perched on the end of the diving board.



Brenna and her mom read the sign at the beginning of the hole.



Ally, Lola and Bobby stamp their scorecards at the end of the course.

After playing golf the families gathered at the outside tables to share a potluck lunch and discuss their day on the course. The families and teachers ate hotdogs and tofu pups from the snack bar. They ate pieces of a cake that was designed to look like a golf course.

The following day a second grade class from the nearby elementary school came over to play golf with the preschoolers. The preschoolers showed the second graders how to navigate their golf course. This led to alliance between the preschoolers and the second graders with several visits back and forth between the two schools.