

Montessori Pathways'

News

December, 2011

Notes from Ms. Alena



Despite December being a short two weeks of school, it was perhaps the busiest time of all! Our school became Santa's workshop as the little helpers worked relentlessly to prepare for the Winter Celebration. The **Kindergarteners practiced their play**, *Bob Humbug*, *the Christmas Grump*, and **created costumes and scenery**. All of our students helped **prepare the holiday dinner** by washing and cutting the fruits and vegetables. The students also **created various gifts for the families**, while filling the school with holiday songs and cheer.

At the beginning of the month, some of our parents met during the **parent evening** to discuss *why practical life and art areas serve not only as foundations for the classroom, but for the child's life as well*. Unfortunately, since there was a lot to discuss, we did not have a chance to cover the sensorimotor area. Therefore, we will look further into this area during our February math meeting.

We would like to extend a *huge thank you* to all of the families that participated in our **fundraiser for the opening of the Lower Elementary program**. With your help, we were able to raise over \$1,000 and have already ordered all of the materials from the wish list. If you missed the chance to participate but would still like to support the school in this grand endeavor, we will of course still be accepting donations as there are many more materials to order and any help is greatly appreciated. We hope to share all of these materials with you during our upcoming Elementary meeting in the spring.

It was a pleasure to finish off the year with our amazing **Winter Celebration**, for which we would like to thank not only our hardworking students and teachers (without whom it would not be possible to put together such a wonderful celebration), but also all of the parents. Everyone proved to be very talented as the singing, dancing and clapping of the night was rhythmic, in tune and simply beautiful. We hope you had a wonderful time as well.

Some of our students continue to enjoy each other's presence during our **Winter Camp**, which is proving to lack snow more than usual. However, the children are learning about winter, the various holidays and cultures nonetheless.

Coming School Events

On Tuesday, January 10th, 2012 at 7:00 p.m. we will be hosting ***"Interconnection of Language and Science in a Montessori classroom"*** meeting held by *Ms. Karen and Ms. Christine*. We hope to see you there!

Continued on the next page

Winter clothing reminder

If the weather is above 20°F, children will still have their required outside time. However, as the temperature is dropping to low temperatures, please remember to bring your child to school with a winter coat, boots, labeled snow pants, hats and water proof mittens. We want our students to be warm and comfortable when they are outside.

Please make sure your child is wearing all of the winter clothing (except the snow pants) in the morning rather than placing it in the blue bag. Whatever children hang on the racks in the morning is what they will wear during recess.

We hope that the kids will still have a chance to have some fun with the snow!

Warmly,

Ms. Alena

Working with Montessori materials:

Teen Boards and Ten Boards



Mathematics is a system. In Montessori, we allow each child to discover the natural relationships and patterns between objects and numbers that will help to facilitate the growth of logical thinking. In the 3-6 classroom, most math work offers the child the opportunity to manipulate “concrete objects” (one unit bead, ten bar, 100 square, 1000 cube) in order to build a solid foundation for mathematical work in the Montessori elementary classroom that begins to shift toward “representational objects” (the actual 1, 10, 100, 1000).

The **Teen and Ten Boards** are two distinct works that help a child *build the foundation of understanding linear counting*. The skill of orally counting to 100 is very different from being able to create number combinations up to 100. *The Teen and Ten boards are works that helps a child to recognize the relationship between the number and its' quantity through the manipulation of concrete materials in the form of ten bars and unit beads.*

Continued on the next page



The Teen Boards focus on the skill of **building teen numbers 11-19**, while Ten Boards focus on the skill of **building all numbers 11-99**.

A child will typically begin working with Teen boards first and then move on the Ten Boards as the procedure is similar and allows for independent work when the child is ready.

The general aim of both works is for the child to become aware that larger numbers are combinations of smaller numbers and there is a natural pattern to forming these numbers.



For both works, first the child will order **numeral cards 1-9** and place the matching quantity bead bar next to each card. Next, the child will read the **number rows** pre-printed on the board and place the correct quantity of beads next to each row.

For the Teen boards, there are 9 rows printed with a 10. For the Ten Boards the rows read 10, 20, and 30,40,50,60,70,80,90. The child will match the quantity bead bar next to each row. For the Teen boards, the child begins with the idea that each row receives one ten bar because each row reads ten. For the Ten Boards, the child learns the

concept that twenty is the same as “two tens” and thirty is the same as “three tens” and places the correct quantity of ten bars next to each row.

Lastly, the child begins to combine the numbers from the numeral cards with the number rows to create new numbers. For example in the Teen boards a child may be adding (numeral and quantity) $10 + 3$ to create 13. For the Ten Boards a child may be adding (numeral and quantity) $60 + 3$ to create 63.

The synthesis of matching the quantity and numerical representation of that quantity that the Teen and Ten Boards offer is foundational to advanced mathematical work in the Montessori classroom.

Ms. Jocelyn

The Stamp Game

The Stamp Game is an interesting and versatile advanced math material. It has several main purposes: *it reinforces place value and base ten, it is used to calculate 4 place value equations in addition, multiplication, subtraction and division, and it is a material that helps to lead the child to abstraction i.e. away from dependence on concrete, visual materials.*



Continued on the next page

To understand the stamp game, it is necessary to consider that a basic premise in Montessori education is to lead the child from work with very concrete and visual materials through a curriculum in which the materials become increasingly abstract in a step by step sequence.

Eventually, the child is able to work mathematical problems without the aid of concrete materials, relying instead upon his built up understanding of underlying mathematical ideas and his past experience in working with materials.



In working with place value, the child initially begins with actual ones, tens, hundreds, and thousands. He can see the relationship visually. He can also handle the materials which gives tactile input (1000 weighs A LOT MORE than one unit and he can see that it is much larger). He can also use our supply of units to build tens, our supply of tens to make hundreds, and the hundreds to make thousands. In this way, he is creating equivalencies himself. He continues to work with these materials to construct quantities of specific numeric values. Eventually, he comes to combine these quantities (addition and multiplication) and to divide quantities (subtraction and division).



To move to a more representational level of math, we introduce the stamp game. The material consists of “stamps” which are wooden tiles approximately $\frac{1}{2}$ inch square. Therefore, we have given up the relative differences in size. All stamps, whether 1 or 1000 are the same size. However, we have kept a color coding that has been developed with other materials (ones are green, tens are blue, hundreds are red and thousands are green). Also, each stamp has the value printed on it. So the children still have some visual keys as to the value. However, the size differences have been removed from the material.

Using the “stamps”, the child can do all the mathematical functions of addition, multiplication, division, and subtraction. They will encounter problems which require “borrowing” and “carrying”. They can do division with remainders. The setup of the problems requires the child to lay out the material in columns so correct place value is also reinforced.

This is the first material which helps to lead the child to abstraction. It is followed by several additional materials, all of which remove a “concrete” clue or help, but does so one step at a time.

Ms. Karen

Continued on the next page

Notes from the North Classroom:

Ms. Jocelyn and Ms. Christine

With only two weeks of regular class time in December before break, the children still managed to complete a lot of work! On the tails of all of our discussions and work about being thankful in November, this month activities surrounding of **preparing for a season of giving** were at the forefront.

Within days of December beginning, the children had already helped to assemble and **decorate our classroom Christmas tree**. On one day each child was invited to help organize the pieces of our artificial tree and then place them into the correct slots. The next day, the children took turns hanging ornaments one by one taking care to space them evenly and pay attention to the arrangement of size, color and shape in order to end up with a beautiful display. The children did a wonderful job and took a lot of pride in “our tree”.



As the days progressed the children had many opportunities to create wonderful work projects that they could bring home to give to family members. Many children created pin-poked holiday shapes, painted holiday pictures and fingerprint holiday wreaths. Yet another fun project was offered to the children when Treyson’s mom, Ms. Tammy came in and showed the children how to make **beaded holiday ornaments**. (*Thank you, again, Tammy!*)

Lastly, just days before winter break, each child also helped to **create chocolate covered pretzel rods** that came home as yet another gift from your child to you! During this season we hope you enjoyed receiving these many gifts from your children.

The ability for children to graciously give gifts helps to shift the focus from one of only receiving to one of appreciation and meaningful displays of gratitude toward others.



Continued on the next page

New works in the classroom in December included **science works** that focused on *the difference between vertebrates and invertebrates, and herbivores, carnivores and omnivores.*

In Language, new *matching vocabulary cards and pictures* and *syllable clapping* work were presented. As the Kindergarteners explore and study these new concepts the younger children are also naturally drawn to trying or observing these works as well. A three year old may not fully understand the concepts yet, but will watch and strive to be challenged with something new. This is the beauty of a multi-aged Montessori classroom!

One fun number extension work was introduced this month: **dice addition**. This new work is simply a different way for children to practice their *counting skills* with the added fun of rolling two dice.



A child had to first gather their materials: dice, equation paper and a pencil. The work begins with the child rolling the dice and then counting the number of dots on each die and then recording it on their equation paper (i.e. $6 + 5 =$) Then the child counts all of the dots as a total and writes it as the answer to the equation (11). For a child who is not yet writing independently, a teacher may write the equations in a yellow marker which the child then traces over. A few children who were up to this point reluctant to venture into the math area of the classroom began to seek out other math works after

trying this new work! *The foundational skills gained with dice addition naturally help children to identify number groupings, associate amounts to numerals, and build confidence to play more complex games.*

Finally, thank you to all of our families who provided food and beverages for our winter celebration! The children really enjoyed *washing, peeling, slicing and chopping* the abundance of fruit and vegetables brought in! It is so much more meaningful to the children when they help to shop, bring it to school and then help prepare it. We are truly grateful for your help in making this happen! Our classroom smelled like a fresh fruit and vegetable stand during the last few days before break, it was wonderful!

Ms. Jocelyn and Ms. Christine

Continued on the next page

Notes from the South Classroom

Ms. Karen, Ms. Ambreen, Ms. Alena

Thank you: To everyone who attended the Christmas Celebration. It was a fun and memorable night for all and would not have been possible without your participation. It was a treat to see so many extended families join us: siblings, grandparents, and friends. Big thanks to the many people who helped with both the setup and the cleanup. It is true that “many hands make light work.”



Moving: Walter Sherman-Pfeiffer and his family are moving down south to Carbondale, IL.

We want to send them off with a fond farewell and many good wishes. We hope to get an Email photo of their new house to share with his classmates. We have enjoyed getting to know both Walter and his family over the past several years.

A Gift from the Montessori Classroom: Time!



Time: a valuable gift of the Montessori classroom. Time to explore. Time to solve a problem. Time to think. Time to repeat an activity in order to become more proficient and to reach mastery.

Because of the unique structure of the classroom, the child in Montessori has so many opportunities. *Children love to think, explore and create, but that all takes time.* It also takes time for children to process information and to act on that information (surprise transitions are frequently difficult for the young child who wants to “figure out how things work”). We do not break the day down into small segments (15 – 20 minutes of time).

Some examples of a child’s use of time in the classroom:

- *One young child spending 10 minutes working on buttoning an apron. He was not frustrated or impatient, but was simply engaged in working through a problem suitable to his skills.*

Continued on the next page



Eventually we could see the look of accomplishment on his face when he succeeded.

- *A child was washing dishes. But then that activity turned into “scientific exploration” as he watched, time after time, as the water rolled off the cookie tray in sheets.*
- *A child who had been working with number rods (sets of twos, threes, etc.), after thoughtfully exploring, came up and said “I know how much 2 square is. It makes 4.” And then he went on to explore the squares of numbers up to five.*



Time:

Time still seemed to speed up this past month of December. We spent many classroom hours decorating for the holidays, making small gifts, engaged in “holiday projects”. It was a happy time of contentment. Again, we could hear the sound of children singing as they worked. Hours and hours of time went into the children preparing the fruits and vegetables for the Christmas celebration. For them, it was a labor of love.

Our speech pattern this month is:

“Many hands make light work.”



Words from Maria Montessori:

“Education is a process which develops spontaneously in the child. It is not acquired by listening to words, but in experiences in which the child acts on his environment.”

Ms. Karen, Ms. Ambreen, Ms. Alena

Continued on the next page

Kindergarten Extended Day News

It is amazing to believe that in the short time between Thanksgiving and Winter break, the Kindergartners managed to successfully *learn all their lines, songs and dances* for **Bob Humbug, the Christmas Grump**. It was a lot of hard work that required the children *to stay focused, concentrate and have a lot of patience and perseverance*.

A huge thank you is owed to Ms. Alena for overseeing the rehearsals and performance and to Ms. Nina for providing the musical and dance direction.



In addition, to countless rehearsals these first two weeks in December the Kindergartners were busy with other work as well. As the year progresses so does the level of challenges.

In Math, the children are all practicing their **place value skills** by working on the *Banker's Game*. The Banker's Game requires a child to be organized, focused and able to manipulate place value materials with numerals in order to compute advanced equations.

This month the children are all practicing **static addition** of four digit numbers (for example: $1541 + 3247$). As the children become very confident with these equations, they move on to **dynamic addition** that will require them to "exchange" (10 ones for 1 ten, 10 tens for 1 hundred or 10 hundreds for 1 thousand). This is a concrete application of the mathematical idea of "carrying" that helps each child to truly understand this concept. The children have all practiced the foundational work of "handful exchange" earlier this year to prepare them for this next step.



In Science, the children had another visitor to observe this month, **a hermit crab**. The children learned basic facts about hermit crabs, the different parts of a hermit crab and then used this new information as it applied to their work on *vertebrates and invertebrates*.

To build upon this interest, some of the children choose to create their own observation logs to record what the hermit crab was doing. To facilitate their **writing skills**, their *word building work* for that week focused on words that begin with the "**cr**" sounds.

Continued on the next page

A huge hit with the Kindergartners this month was the inclusion of *new partner work* in the form of *two-person games*. These works help the children to practice social, emotional and academic skills all in one. The game choices included *Go Fish, Six-Card War and Art Memory*.

The first step required the child to ask a friend to join them to play the game. The two children then needed to divide the tasks involved with set up of the game (who will get the rug? Who will shuffle the cards? Who will go first? etc.)



Next, the children then played the game. While this may seem like the easy part of the process, it is actually where all of the skills associated with fair play arise (how do we remind a friend of the rules in a nice way? How do we win or lose graciously? If we act a certain way, will this friend want to join us next time?)

Finally, as with all work, it needs to be put away (who will put it away? Who will roll up the rug? Did you thank each other for playing?)

The **Kindergarten field trip** this month was to *Xtreme Wheels* to go roller skating. After a short lesson by the owner of the rink, the children headed out with “skate mates” to help them keep their balance. Did you know that roller skating is really just marching? As the children’s confidence grew, many soon ventured out without the skate mates and were skating all on their own before we



left. This was a great opportunity for the children to try something new with their friends and they all had a great time! Many of the children already told us that they were planning on bringing their parents back over winter break for some fun!

Thank you *Mr. Vehring, Mr. Wagler, Mrs. Hendrey and Mrs. Nieckula* for driving and roller skating with us!

Ms. Jocelyn, Ms. Katy

Continued on the next page

Notes from the afternoon classroom:

Ms. Terri

This month our classroom often looked like Santa's Workshop. The afternoon class was *responsible for all of the costumes, decorations and scenery for the Christmas play, Bob Humbug the Christmas Grump*. As we drew the letter for the banner and decorated them, the children were almost bursting with creative designs and colors as they worked.

Each kindergartener wore a *striped "helper hat"* for the play (they also had tassels which we also made). The scenery for the play included *shelves in Santa's Workshop* complete with tools like brushes, paint, hammers and more. Another set of shelves contains toys made in the Workshop like trains, dolls, pails, teddy bears and ducks. Each was decided on by the children, drawn (sometimes with help) and colored, then cut out and glued onto the scenery shelving which we had painted onto large pieces of cardboard.



We had so much fun that the children often wanted to stay and help some more with the scenery. Many children brought their parents in at dismissal to show them our progress. What a great group effort! So many eager helpers it was a beautiful thing to see. Also I have to share this – many times during the afternoon class a child would spontaneously break out in song, usually a Christmas carol, and then they would be joined by others in the room.



The children also enjoyed making *Christmas cards* this month. We traced evergreen trees then applied glue and applied green, red and gold glitter to decorate. We then added our Christmas message on the inside of the card.

As many of you might have heard, we had a sad thing happen in our afternoon class this month - our pet canary, named Canary, died. We made yellow play dough in his honor, which we used to make birds. We used it as an impromptu study of parts of the bird as we made the head, body, beak, wings and tails. We also wrote a story about Canary which I would like to share.

Canary

Our bird named Canary died on Wednesday, November 30. We miss him. Our room is very quiet without him. Our class took care of Canary. We gave him water and fresh food every day. He ate birdseed. He was a messy eater.

Continued on the next page

We cleaned Canary's cage every Friday. We covered him up every night so he was warm. We decided we loved him the most when he was alive. We put him in a box and buried him in the corner at the back of the playground. We put yellow paper around his box. We wrote, "We love you Canary" on the box. We miss his chirping. Thank you for being with us Canary.

The End.



Our *favorite baking* this month was *Oatmeal Bar Cookies*. Here is the recipe.

1/2 c. butter

1 t. vanilla

1/2 t. salt

3/4 c. brown sugar

1 1/2 c. flour

3 c. oatmeal

1/2 c. white sugar

1 t. baking soda

1 c. raisins

2 eggs

1 t. cinnamon

Preheat oven to 350°

Beat butter and sugars till creamy. Add eggs and vanilla, beat well.

Combine flour, baking soda, cinnamon and salt. Mix well.

Add oats and raisins. Mix well.

Press into 9x13 pan. Bake 30-35 minutes till lightly golden brown.

Enjoy!

Ms.Terri

Continued on the next page

Ms. Katy

First of all, thank you to all the parents for sending in family photos for our special gifts. The children had a wonderful time working on this project, which involved many steps. I think one of the highlights was hearing the children share with one another about the people in their photo. It was a wonderful opportunity for the children to practice listening and taking turns.

While the children were working on their holiday projects it was also wonderful to hear them break out into song on their own, providing an impromptu practice for the Winter Celebration. Again, thank you for taking the time to send in a photo. I am looking forward to another wonderful month with “The Nappers!”



Thanks,

Ms. Katy

Notes from Gym class

We did the 12 Days of Exercise to the tune of the 12 Days of Christmas. Some of the changes were 3 jumps up high, 4 spins around etc.

We played a game with partners. One partner was the North Pole Santa and the other partner was the South Pole Santa. The Santas took turns moving presents from one tree to another. The rules were simple only one gift under the tree and you could not put it back under the tree that you took it from.

The children also enjoyed being a reindeer pulling Santa on his sleigh (scooter) to gather the gifts.

Sincerely,

Ms. Donna



Notes from Winter Camp

I cannot believe how fast the first week of Winter Camp went by. It was a little disappointing that we had no snow, however the children stayed busy inside. Some of the highlights of the week included making *tissue paper wreaths* and *wreaths out of shredded wheat, glue and green paint*.

Continued on the next page

It was interesting to see that some children dug right into mixing the glue, paint and shredded wheat by hand, while others took a pass on it all together and chose to stick to choosing their own (less messy) work.

Baking was available for the children all week and was a popular choice for many of the children.

Ms. Donna brought in a Dreidel, and the children enjoyed learning how to play. Those who learned initially with Ms. Donna were then able to teach the other children who wished to play throughout the week.



We also spent our line time *singing some holiday songs and reading some wonderful books* including How the Grinch Stole Christmas and The Night Before Christmas. Overall, it was another week of fun and learning that seemed to fly by. Here's to hoping we get some snow soon!

We have made our *own snowballs* out of newspaper and painters tape. The mats make great



forts. We throw all of our snowballs at the same time. Then we retrieve them and begin again. You won't believe the workout you get throwing and retrieving.

We have enjoyed *playing board games*, Mancalla, Trouble, Go Fish, Scrabble Junior to name a few.

Kwanzaa flags were made. The colors of the flag are green, black, and red. We read a story about seven brothers that learned how to work together and care about others. Kwanzaa lasts for seven days. It started on December 26 and ends on January 1.



Magic pictures were made. You drew a picture with a candle then put a blue wash over it and wiped it off to reveal what you had drawn.



Kazoos were made to ring in the New Year.

HAPPY NEW YEAR!

Ms. Katy and Ms. Donna