

April, 2010



AMHERST MONTESSORI SCHOOL

Elementary Newsletter

More than Just Math

We all know math as an exercise in counting and solving “problems”. It is a universal language, and yet somehow, for many of us, it remains a foreign language. In a Montessori Classroom mathematics is transformed from numbers on a page into tiles, beads, blocks, boards and pegs that not only teach how to perform an operation but also patience, perseverance and peace.

If we consider that a division question that uses numbers into the millions will generally take a child between fifteen to twenty minutes to complete it may seem an exorbitant amount of time to spend on one question. Yet, it is a favorite exercise of nearly all the children, but why? Most children understand division as the “most difficult” operation as one learns it last in school. As such it is with great anticipation that many of the children wait for an invitation to a lesson. Moreover, upon realizing that the mechanics of this work is simple to complete, they find themselves brilliant for so easily understanding something that was once viewed as highly challenging.

Not a day goes by in the

classroom that the racks and tubes remain on the shelf the whole day. The children take on these huge numbers with great excitement, persevering in the pursuit of working on even larger numbers. The racks and tubes require a level of patience and precision that greatly aids in building concentrative skills. The tiny beads require care with a pincer grip and refine fine motor skills. The rows of green, blue and red spheres sit in groups of ten in each tube and with each use quietly build knowledge of our base ten number system, addition and subtraction as well.

This exercise teaches the children about division as a sharing exercise when they find the quotient correctly and of the importance of focus, patience and precision when it is incorrect. As simple as the description of sharing beads seems there are many points for error if the child becomes distracted.

Building concentration here prepares the child for more complicated and longer work, but also becomes a meditative act bringing a sense of peace to the child. The quiet counting and laying out of beads in a set, methodical pattern has a calming and comforting effect on the child, as it is predictable and repetitive. While in this state of calm the child's brain creates images which s/he remembers and with continued practice s/he will no

longer need the physical representation of the racks and tubes, s/he will be able to see it in his/her mind and not only do the work abstractly, but also apply this vision to future lessons of math including how to find the lowest common multiple, square rooting and algebra.

As the children continue their journey through the mathematics curriculum it may seem to them that they are simply learning a new material or a new operation. However, the Montessori math program offers each of them so much more than simple long division which they so adore, it provides them with another opportunity to become peaceful, authentic human beings.



Sculpture

Fingers covered with the slippery clay and water mixture the children push, pull, poke, roll and squeeze their hunks of clay to melt and bend into the visions in their minds. Over the last month and a half the Elementaries and Kindergarteners have shared this delightful and playful experience with sculpture in art class. As the children have learned about three dimensional art and pottery they

have brought to life dinosaurs, volcanoes, robots and fish and marvelled at their abilities, and the process of turning raw materials into finished pieces of art, with all the glory that their imaginations (and some dazzling silver paint) can create.



Saliim and Noah put some finishing touches of paint on their clay sculptures.



Back to the Farm

We arrived at Small Ones Farm to the smell of Cutie Pie's pen, and the perfume of maple sap boiling over an a hot wood fire. The children full of anticipation for what they are to witness that day hop about, barely able to contain their excitement as we walk over to a picnic bench to discuss the miraculous process that these trees go through that allow us to harvest their life's blood.

As the sap begins to make its way up from storage in the roots of the maple trees we tap into the phloem and collect the slightly sweet watery substance to boil it for hours, as the natives once did so long ago, and turn it into a delectable sweet treat. Our experience this month included a chance to collect sap and witness its transformation into golden syrup. Not only did we connect the events of this trip with the parts of the woody stem, we also learned about the benefits of new innovations of farmers (such as moving from hooded galvanized buckets that keep out rain, but not insects to a plastic sealed bucket that keep out just about everything).

We are so fortunate to be able to visit this local, organic farm for these truly memorable moments that allow for true hands on learning.



Thank You

Many thanks to Lisa Moe for attending the Shea theatre trip with us! Without you and your mini van this trip would not have been possible. Your time, effort and good spirit are hugely appreciated!



Thank You

Thank you to Lynn Yanis and John Maher for the donation of some beautiful tea cups! They are just what we needed to make our hospitality at morning share complete!

"There is no description, no image, in any book that is capable of replacing the sight of real trees, and all the life to be found around them in a real forest"

Dr. Maria Montessori

Upcoming Events

April 2—first Friday

April 14 am—Morning Share

April 14pm—trip to Hitchcock Center

April 10—Grounds Improvement Day

April 19-23—Spring Vacation (and camp)

April 30—Grandparent and Special Friend Day