

2016-2017 Curriculum Report: Third and Fourth Grades
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This year, Rachel and Marie's group was a mixed age group, composed of 13 third and eight fourth graders. Wendy and Sara's group included 12 third and eight fourth graders, and in each room we found a nice balance of personalities and affinities. Most of these children had been together the previous year in two classes of second and third grade, and so many friendships already existed among them. We welcomed several new children to Miquon this year, who brought their own gifts and found connections quickly in our groups.

In the early weeks we played games to learn about one another's summer adventures and finding commonalities among us. Reconnecting with known friends and exploring new connections is essential to the work of building community in the beginning of school. Both 3/4 groups met for morning meeting each day, a time to greet each other by name, share happenings from our lives, and get ready for the day together. Along with the rest of the school, we worked to incorporate elements from the Responsive Classroom model into both of our rooms. Our intentional community building work of the first six weeks of the year helped to lay a solid foundation for relationships and for learning communities that were based upon respect for one another.

Classroom Structures and Rhythms

In our Miquon days we hope to find a balance between comforting routine and openness to spontaneous ideas or unexpected needs. Our daily rhythms provide important structure but can be flexible as needed.

A sample day in the 3/4:

- Morning work: writing or math journals, tinkering, drawing
- Morning meeting: greeting, sharing, announcements
- Half group time:
- Specialists (science, music, art, library or P.E.) for one group, usually Reading or Writing Workshop for the others, then switch
- Snack and Choice time, nearly always outside
- Independent Reading Time, also individual work with a teacher
- Whole group work, often in Theme studies, word work, or book groups
- Read Aloud
- Choice, outside again, and Lunch time in our room
- Half group time: Specialists for one group, usually math for the other
- Closing circle

Many times activities spilled over from one time period to another, but the usual daily rhythm matched well with the children's mix of both calmer and higher energy levels, and gave opportunities for balance: "being" and "doing," indoors and outdoors, active movement time and quiet reading, group discussions and independent table work.

Social and Emotional Learning

The patterns of our day intentionally reflect our understanding that social learning is integral to the work of childhood, and cannot be separated really from the academic work of school. Children learn best when they feel known, welcomed, safe, and integrated into their learning community. Whenever events arise that lead to feelings of disconnectedness, exclusion, hurt, or uncertainty, it is important to stop and take the time to listen, give space for processing, and support children in working through their problem. Our 3/4 groups were overall very positive socially, but issues still arose, some familiar from earlier years as well as new social challenges as they get a bit older.

We included in our week a few ways to build social skills and community identity. One was regular time in each 3/4 group for drama activities with Carol Moog, our school psychologist. This was a time for improv games to practice listening, compromise and taking turns, or skits on specific topics that had come up as challenges. The other was our regular Good of the Group meetings, which were modeled after Miquon's monthly Good of the School sessions run by the sixth grade students at All-School Assemblies. In some of the meetings, children from the group took turns facilitating and taking notes as others presented problems and concerns, then brainstormed solutions. These meetings gave the children a structured opportunity to practice problem solving strategies together.

Theme / Social Studies

Essential Questions

- Why do we study the past?
- How am I connected to those in the past? How is the past about me?
- How do changes in the distribution of resources affect people's' lives?
- How does geography affect where people live and how they live?
- How do the resources available in a place impact a cultures' needs and lead to new inventions?
- Why did ancient peoples develop some similar inventions in different places over time?
- In what ways can history be biased? Is it always the story told by the "winners"?

Integration of Studies

At Miquon, we attempt to connect learning across the traditional boundaries of "subjects" wherever we can, just as work in the real world tends to do. Our Theme studies this year had a few threads which connected across the whole year, but the units of study took on a different look in the two classrooms. In both groups, the work we did involved reading, writing, research, computer skills, mathematical thinking, and often overlapped with projects using drama, art or science.

The common thread across this year was the question of how innovations were affected by geography and culture in ancient times. We were introducing the third and fourth graders to thinking of themselves as historians, understanding what it means to look at times "long ago." By studying how various civilizations developed different around the world, we hoped to give the children a chance to think about how one's environment can affect what is needed for survival, and what resources are available to solve daily problems.

Fall Invention Study: Timekeepers

In both classrooms we started off the year looking at timelines and trying to get a handle on the idea of people living together and building villages and cities two or three thousand years ago. We used books, short videos, storytelling, and a study of museum artifacts to consider how different life might have been in the ancient cities of Mesopotamia or Egypt. We played games like *Timeline* and used skit performances to develop an understanding of some of the early inventions of these peoples.

We took one broad category of inventions to study in depth together, and that was methods of tracking or keeping time. For many of us today, clocks, calendars, and watches (or smartphones, now) are so integrated into the fabric of society that we don't imagine much how life would be changed in their absence. The children had a great time thinking of problems that would develop without ways to meet up with a friend at the same time, or to know how long something had been cooking. We considered the resources people could use to track the passage of time, the sun being the most obvious one.

Children in each room experimented with designing their own versions of early timekeepers such as sundials and sand timers. Using various materials we discovered some of the challenges with accurately tracking the movement of the sun through the day (especially on our shady campus) and quickly found how much less helpful this method is in the rain. With sand timers children took on a challenge such as how precisely they could measure

one minute, and saw how many variables there were in setting up an apparently simple device. Some groups also studied the water clock from Egypt and learned how it was later made more precise by the Greeks to put on an ‘alarm clock’ overnight or time the speeches of overly talkative politicians.

In this examination of innovations of tracking time, and later the passage of the year through various moon cycle charts and solar calendars, we came to understand that inventions could have some similarities and differences around the world. It was a good connection to the idea of timelines, and generally to seeing ourselves as time travelers whenever we study history.

Many great texts connected well to our studies in both rooms, including:

- *The Story of Clocks and Calendars* by Betsy Maestro
- *How Do You Know What Time It Is?* by the Wells of Knowledge Science Series
- *100 Inventions That Shaped World History* by Bill Yenne and Morton Gross
- *I is for Idea: An Inventions Alphabet* by Marica Schonberh and Kenday Radzinski
- *Look What Came from Egypt* by Miles Harvey
- *Science in Ancient Mesopotamia* by Carol Moss
- *The Time Bike* by Jane Langton
- *The Time Warp Trio: Tut Tut* by Jon Scieska

Ancient Civilization Studies

During the winter and spring, both 3/4 groups delved further into ancient civilizations. Both visited the Penn Museum (University of Pennsylvania’s Museum of Anthropology and Archaeology) in December, and the children were able to see up close some amazing examples of artifacts from the cultures we had been discussing.

In Rachel and Marie’s room, the group took a depth look at the development of civilization in Mesopotamia, and familiarized themselves with some features of daily life. They merged these studies with a historical fiction writing unit, with each child creating a character for themselves to imagine in Mesopotamia, with a societal role and family life. Each then used what they had learned to write a fictional narrative that incorporated inventions of the time and how their character’s daily life was affected.

Having journeyed together into Mesopotamia, the children of Rachel and Marie’s group then each had the opportunity to choose one of the ancient civilizations to study in greater depth. Through various forms of research, the children were able to learn more about Rome, Egypt, Greece, China, or the Mayan people. The class then formed into different ancient civilization groups, and began to practice the tools of basic research, which they would eventually use in writing a “cultural statement” describing everyday life during the time of the civilization. This could include, for example, the jobs that were held, the culture’s religious practices, and social hierarchies.

Each child then worked for weeks to create replicas of ancient inventions that most interested them from the time and place they were studying. The artifacts included games, musical instruments, clothing, tools, and food. By the end of the spring, Rachel and Marie’s group used their cultural artifacts to create a “museum showcase” which families could tour. The children grew immensely from these projects in their sense of themselves as researchers and historians, and in their perspective on what it took to develop basic inventions needed in daily life from the resources on hand.

In Wendy and Sara’s group, children looked into the development of various systems of writing in ancient civilizations around the world. With a close look at ancient Egypt, the children thought about why communities would have a need for written language, and how they first began to record events and then thoughts onto materials available. We looked into cave painting, stone etching, and the making of early papyrus in Egypt and paper in China. The children were intrigued to practice for themselves some of the first forms of writing, from the cuneiform of Sumeria to Chinese bone script and Egyptian hieroglyphs.

To come to understand the life of one culture more deeply, each child in this room also participated in an Egyptian village simulation activity, which overlapped with our winter writing unit. Each one chose a name, age, and role in society, and in many cases imagined they were related to one another. Then as a weaver, scribe, or soldier, they would write a series of journal entries which began with a shared event (like the Nile flooding) but would be filled with imagined details of what his or her character would wear, eat, and do each day.

In the spring Wendy and Sara’s group learned more about the early peoples of Mesoamerica, in particular the Maya. They looked at some of the inventions of the Mayan Empire one to two thousand years ago, exploring their amazing calendar, number system, writing, farming innovations, and city building. Among other activities

children each created a hieroglyph clay piece to build into a writing tower, or stellae, similar to one we saw at Penn Museum, and multiple other pieces to build into a miniature Mayan village in our classroom.

Combined 3/4 Play

A highlight of the year for both groups was the combined play which we performed at the end of the spring. We chose to create an original play from one of the picture book sets that had been central to our Theme study: the Gilgamesh the King trilogy adapted by Ludmila Zeman from the famous story of Mesopotamia. The children were captivated by this tale of loneliness, friendship, power, and love, and worked hard for two months to bring it from an idea to a performance. Their work included choosing and learning roles, practicing several times a week, painting the beautiful sets in art class with Nicole, and making their own props and costumes. The final performances for the school and then for the families were a perfect culmination of our Theme studies together.

Mathematics

This was a really exciting year of mathematical explorations in the 3/4. As happens throughout the school, the 3/4 team used in our planning the *Focal Points* from the National Council of Teachers of Mathematics as a guide. The goal of these Focal Points is to assist schools with focusing on essential topics for each grade level and to go into greater depth exploring and extending these concepts, rather than simply “touching on” every possible math skill (www.nctm.org).

These are the third grade Focal Points:

Number and Operations and Algebra: Developing understandings of multiplication and division and strategies for basic multiplication facts and related division facts
Number and Operations: Developing an understanding of fractions and fraction equivalence
Geometry: Describing and analyzing properties of two-dimensional shapes

These are the fourth grade Focal Points, which relate well to those above but take them further:

Number and Operations and Algebra: Developing quick recall of multiplication facts and related division facts and fluency with whole number multiplication
Number and Operations: Developing an understanding of decimals, including the connections between fractions and decimals
Measurement: Developing an understanding of area and determining the areas of two-dimensional shapes

Our overall goals for these growing eight, nine, and 10 year-old mathematicians included:

- Developing their inherent curiosity for puzzling, conjecturing, and wondering.
- Building confidence and a sense of competence and possibility, a “growth mindset” and an understanding that wrestling with questions has a value beyond correct answers.
- Growing fluency with computational skills, which by this age, for most children, will include secure skills with addition and subtraction and developing fluency with multiplication and division.
- Building our skills at working together in groups and partnerships to solve problems and discuss ideas respectfully.
- Making connections across curricular areas, as numerical understanding was woven into our Theme work and overlapped with explorations of graphs, maps, ancient number systems, and money-related problem solving.
- Growing development of a vocabulary for mathematical concepts, including math discussion and journals.

The concepts explored during this year centered around six units of study:

- Review of number strategies, addition, subtraction, place value
- Factors, multiples, and arrays
- Reading graphs and interpreting data
- Parts and wholes: understanding and using fractions
- Applying multiplication and division
- Measurement and 2D-Geometry

Throughout the year, we primarily used the *Investigations* curriculum by TERC, with supplements such as the *Math in Focus: Singapore Math* and *Real Math* texts. We also made regular use of a range of math games, puzzles, manipulatives and building materials. These sparked the children's interest and creativity while engaging a variety of learning styles.

Our mathematical work overlapped regularly with language arts through math-themed picture books and stories, or writing our own story problems. Trying to explain one's thinking in written words uses a whole other part of the brain while also solidifying concepts. Math journals and games encouraged a different way of thinking how math can be used. One favorite time each week in both rooms was when we used Marcy Cook math centers, tile activities that included many different topics and allowed kids to enter at different levels and work independently in a fun and relaxed setting.

Whenever possible, we incorporated Miquon's natural environment into our math explorations. For instance, when reviewing sets of multiples, children in Wendy and Sara's group went outside in quarter groups with colored chalk and created games on the walkways, like a twist on hopscotch or jumping by 6s. Another day, they used a ten-foot string to estimate and measure the height of familiar locations on campus. When learning about distances and the metric system, estimated how long they thought 100 meters might stretch, then used a trundle wheel to mark the distance. The mix of active outdoor and indoor math work was another way we reached a range of students and integrated our bodies and brains.

Language Arts

By third and fourth grade, our kids are well-immersed in a love of literature from their early years at Miquon, and are already familiar with how to explore a story read aloud or give one another feedback as writers. We were able this year to go into greater depth as both readers and writers, developing and building on children's existing skills and interests, and encouraging them to grow in new ways as well. We had the support of Rossana for in both of our rooms, with ideas for building a rich curriculum and incorporating an anti-bias lens into our planning, as well as providing targeted support for struggling readers. In Reading Workshop, teachers would explore specific mini-lessons in reading to develop comprehension skills and foster deeper connection to texts.

Reading was a centerpiece of our day in the 3/4, with practice choosing books at our "just right level," cozy spots to curl up with a favorite story, and time set aside each day for independent reading. Many children discovered a favorite new series, including mythological fantasy, historical diaries, or adventure-filled graphic novels. Each group also gathered regularly to share read alouds together.

Some favorites across the year included:

- *The Time Bike* by Jane Langton
- *Escape from Mr. Lemoncello's Library* by Chris Grabenstein
- *Crenshaw* by Katherine Applegate
- *Absolutely Almost* by Lisa Graff
- *The Hundred Dresses* by Eleanor Estes
- *The Birchbark House* by Louise Erdrich
- *The Year of the Dog* by Grace Lin
- *Adventures with Waffles* by Maria Parr

We also enjoyed so many picture books, both treasured classics and some recently published works by new authors. Through shared reading children were able to make observations and predictions, ask questions and engage in debate with one another, and highlight unfamiliar vocabulary or interesting writing strategies. As we read aloud each day, we could model some habits of readers or writers that could be useful for all of us. Our nonfiction reading

included bi-weekly explorations of *Time for Kids* magazine, which tapped into the children's wide range of interests in the world.

We joined the school-wide participation in teachers the National African-American "Read In," spreading out to classrooms around Miquon to hear and discuss books by black authors. There were also many chances to explore important topics very relevant to today, including the many intense conversations that swirled around the 2016 election, and the children's various questions and concerns about current events.

Each of the 3/4 classes explored some books during the year which tackled issues of refugees, racial prejudice, and gender stereotypes, including:

- *Last Stop on Market Street* by Matt de la Pena
- *Stepping Stones: A Refugee Family's Journey* by Margriet Ruurs and Nizar Badr
- *Ada Twist, Scientist* by Andrea Beatty
- *Sit-In: How Four Friends Stood Up by Sitting Down* by Andrea Davis Pinkney, Brian Pinkney

Small book groups, or literature circles, were another way that the children in the 3/4 engaged with reading this year. Every month or two a new book group would form, allowing three to five children to connect together while reading the same book. The groups varied in their format depending on the needs of the children involved; some were more targeted around teaching decoding skills or practicing reading fluency, other groups had more independent readers but gathered to share reactions to characters or themes in the stories, and to write in reading response journals. The book group selections varied and included various genres, exposing kids to books they might not have chosen independently, yet in many cases leading to finding a new favorite author or topic to read about. There were so many rich exchanges over book groups, and they allowed us as teachers time to get to know the children in new ways, as they swapped dog stories over *Because of Winn Dixie* or wondered about how objects got their names in *Frindle*.

During this year, all of our children grew as writers as well. They continued to practice their handwriting skills with both print and cursive writing. In each classroom we had a time to write daily in morning journals, word work centers, writers' notebooks, or social studies activities. Children also began to learn basic computer word processing skills so that part of their writing can happen on Google docs. This allowed them to begin to practice typing, editing, and giving and receiving comments on shared pieces, building skills they will need in the 5/6 and beyond. In each room we used the key elements of Lucy Calkins' Writing Workshop to present pieces of the craft of writing across multiple genres.

In fall, both 3/4 rooms began with a writing unit on small moment stories, many based on a family story or a summer memory. The children began by brainstorming, developed ideas in multiple ways, and created their drafts. They shared with peers and teachers as they considered ways to revise for clarity and finally to edit their writing mechanics. In each stage of the writing process, we used various mentor texts and mini-lessons to highlight strategies the children were working on. We worked on approaches to opening a story, zooming in on small moments, adding "juicy" describing words, and writing a strong ending.

The writing units for this year included:

- Small moment stories/memories
- Historical fiction
- Persuasive essays
- Letter writing
- Free writing fiction
- Poetry

Several units ended with a Publishing Party to celebrate the gifts of our amazing emerging writers.

Fall Conference Week

During the November conference week, Marie worked with Miquon librarian, Amy Vaccarella, to dive into the wonderful world of games with the children in Rachel and Marie's group. Beginning with the question, "What is a game?" The kids spent time learning about, and playing, many types of "table top" games, and thinking about how

the game is played and the parts that make it up. After playing and evaluating a number of games, the children then each invented a game to share: designing the pieces, writing instructions and testing the game.

Sara drew upon her summer travels to Ghana to create a week long exploration for the children into life in another culture. Together with Miquon music teacher Diego Maugeri, children in Wendy and Sara's group sampled West African dance and music, made kente cloth from paper, and designed their own miniature village after learning about Sara's travels to the Volta region. They also received letters from the children in the village where Sara stayed and wrote their own letters back to their pen pals. Finally they spent time learning through books and video about the diversity of life in countries across the African continent.

Spring Conference Week

Marie worked with one of our classroom aides, April Mitchell, in their March conference week centered on William Shakespeare's *A Midsummer Night's Dream*. They began by discussing plays in general as forms of art and entertainment, and learning about the parts that make up a play. After looking at the original *Midsummer Night* play, they read through an adapted version to study through the lens of character, setting, and plot. They used the play as a basis for acting, problem solving, and building activities throughout the week.

Sara and Diego led the kids in a week-long exploration of Greek mythology, which incorporated art, literature, and drama. They explored Greek gods and goddesses and mythical monsters through books, games, and a reader's theater. Each child wrote a personal myth and presented it to the rest of the class. Students generated their own mythical monsters out of beautiful junk, with some creations accompanying the myth they wrote.

Field Trips

Our exciting year was enhanced by a number of really fun and educational trips:

- University of Pennsylvania's Museum of Anthropology and Archaeology
- Cradles to Crayons service trip
- East Falls Glassworks Studio
- Smith Edward Dunlap Printing Studio
- Science field trip to a Philadelphia Water Department water treatment plant

Buddies

Friendships across the ages are a wonderful part of our community life at Miquon. The buddy program gives us a regularly scheduled time to connect with one or two special friends of another age throughout the school year. This year Rachel and Marie's group were buddies with the Nursery, and Wendy and Sara's group were buddies with Kindergarten. During buddy time, children in both groups often read books, enjoyed craft projects, seasonal celebrations, and free play outside. The third and fourth graders cherished their time each week with their younger friends, and it is easy to picture these connections continuing as they grow together at Miquon.

In Closing

This brings us to the end of an amazing 2016-17 school year, and these 41 wonderful children move on to become fourth and fifth graders. There was so much to love about this year, watching each young person grow and change, ask questions, take risks, and try new things. Each one of the teachers enjoyed the time we were able to spend together, and learned so much from these funny, thoughtful, curious Miquon kids.

We are grateful to the fabulous families who sent their children to us each day and supported their learning and growth at home. Thank you to our class parents for all of the support and help with communications and events: Cindy Froggatt (AJ's mom) and John Stinson (Ivy's dad). We appreciated all of the field trip chaperones, costume makers, and all who sent in special items or helped to facilitate projects as needed.

Most of all, thank you to each of the children who were a special part of Miquon's 3/4 in 2016-17. We will look forward to seeing you continue to grow and thrive in the year ahead!