



2018-19 Curriculum Report
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Community and Social Emotional Learning

Key Skills and Concepts	
Shows respect for others' space, materials, and ideas Advocates for own needs, wishes Contributes to group planning and decisions Aware of others' needs, feelings Demonstrates resilience and flexibility Resolves conflicts skillfully Actively works to solve problems	Offers help independently Completes classroom jobs responsibly Shows connection with friends Branches out socially Observes boundaries with few reminders Seems comfortable with adults Accepts responsibility honestly and reliably

Transitioning into the 5th and 6th grade program is a large step for students at Miquon. Choicetime boundaries expand to include the entire campus, students take on independent classroom jobs and earn their own money to fund their class trip. To help students properly handle this increased freedom, they are provided with many focused opportunities to work together as a team and negotiate challenging situations right out of the gates. Whether working together to feed the community during our lunch sales or negotiating boundaries independently at choice, the skills needed to successfully solve problems with your peers are the same. Thus, in preparing students for their increased independence, several key learning opportunities stand out.

Lunch Sales

Specifically in our class, making, packaging and delivering more than three hundred chicken nuggets, sixty hotdogs and a handful of various snacks requires a great deal of collective effort to accomplish. Much of the work that we did early in the year was centered around clear communication and conflict resolution, because navigating any collective effort can be challenging for the most skilled individuals. Our lunch sales require three hours of work every

other week in which students produce, distribute, collect and tally orders over a period of two days.

On the day of our lunch sales one group, self-named the “chicken nugget crew”, prepare the ovens for cooking, count and lay out all orders, get the food in the ovens for cooking and then, with lightning efficiency, individually pack each order. At the same time these orders are going out, other students are leading a similar process with our hotdog orders. Additionally, students learn to take a lead role in the assembly and delivery of all individual orders. This is a fantastic classroom norm as it demonstrates the importance of precision and speed in a situation that has high levels of accountability to customers, such as hungry kindergartners.

Learning the skills needed to successfully navigate this process in the first couple of weeks of school sets our students at a decided advantage in negotiating the practical challenges of middle school. Furthermore, students are provided with independent work skills and strategies early on in the year, as those not working on the lunch sale are using this moment as an academic work time. In addition to the added excitement and learning involved in completing lunch sales, students also are responsible for classroom jobs that increase in independence and responsibility, and which include completing recycling for the entire campus and learning to wash dishes and clean the kitchen.

Life Skills and Personal Projects

In preparing students for entry to middle school, we create opportunities for our fifth and sixth graders to gain independence through structured projects. Twice a year, first in the fall, and again in the spring, we ask students to take three or four weeks to explore a topic, develop a skill, or pursue an interest of their choosing outside of school, and then to present and celebrate their learning with the group as a whole. In the spring, the “practical and helpful” boundary of the fall project is removed, broadening the topic possibilities even further.

Students keep a journal that includes a student-developed project plan and several written reflections on the project as it develops, as well as a log tracking time spent on the project. At the end of the project, students present their accomplishments and learnings with their classmates and parents. This spring’s projects included: cooking, drawing, creation of a YouTube channel, a website and a birdhouse, to name a few.

Mindfulness

Learning to feed an entire community of people in an hour and a half during our lunch sales, or attempting to design and make your own bioplastic during personal projects, can be an immensely rewarding process. At the same time, students need to be taught specific skills to find success in these learning opportunities. Early in the year, our class was provided with several opportunities to learn and practice mindfulness techniques. The goal of this work was to help students recognize internal signals within their bodies and be strategic in how they interact

with those around them. Although these practices were reinforced throughout the year, our formal study culminated with a weeklong visit from mindfulness practitioner Abigail Bruley. During the course of the week Abigail helped us bridge the gap between theory and practice. We were literally “walked” through several mindful moving activities, experienced how we each express our range of emotions, and gained some self knowledge about how each of us reacts to various stimuli. Overall, the students had some thoughtful responses to the week:

"More mindful eating, cause I liked it and I liked eating."

"I'd like more things to try at home/homework."

"I liked imagining the color of your breath."

"I liked clenching and releasing my hands."

"I really liked staying still by myself, it let me focus on myself. I sometimes feel like we're always moving and it was nice to stay still."

As we progressed through the year, we noted the power of the language, tools and general self-awareness we gained as a group.

Changes and Choices

This year in mid-February, the entire fifth and shifted its regularly scheduled activities and curriculum, including work with specialists, and focused on personal development. The week had three components, and each child spent time with at least two of them each day.

1. Healthy Choices: Consent, healthy eating and exercise, body image, substance use and abuse, recognizing pressure from peers and from media (positive and negative), the nature of healthy relationships
2. Human Development: Human development from conception through old age to include physical, emotional, cognitive, and social growth, using Erikson's stages of development as a framework.

We also spent time bringing the ideas together, looking at the underlying messages that popular media conveys about sexuality and about making choices.

Conference Week

During the Fall conference week, the students, Sarah, Jeri, and Diego studied youth activism. We read stories about youth activists from around the world, and ended up researching a number of climate activism projects. We also learned some songs from the Civil Rights Movement, and the students enjoyed learning to sing “We Are the World” while signing along in American Sign Language. Towards the beginning and end of the week, we talked about what gives us hope and courage, and each child imagined and drew the world they want to live in. During the Spring conference week, the students, Sarah, Jeri, and Julie (who works in After School) studied Philadelphia. The students broke into themed groups to write guides to various aspects of Philadelphia, including Visual Arts, Music, Food, Skateboarding, Basketball, Soccer,

Myths and Folklore, and Parks and Trails. Much of the week was spent researching themes and creating brochures. We also talked with Miquon parent Reid Bramblett, who is a travel writer, about the process of creating travel guides. We spent one day on the road, driving down Germantown Avenue for a driving tour of Philadelphia and visiting Awbury Arboretum.

Language Arts

Key Skills and Concepts	
Demonstrates strong word analysis skills Demonstrates good use of context Writing develops ideas and uses clear structure Speaks clearly and with appropriate expression Expresses thoughts in writing readily Uses basic punctuation accurately Spells familiar words accurately Distinguishes between main ideas and supporting details Understands and employs basic paragraph structure	Writes legibly by hand Uses keyboard effectively Expresses learned information in own words Engages in editing/revision process willingly Edits/revises independently, before adult suggestions Speaks comfortably and fluently in front of group Listens with full engagement in order to understand purpose, content, and structure Expresses concepts, ideas, and learning in visual form

Our class began the year with across the building book groups that offered a wide range of reading experiences. Choices included *Three Times Lucky*, *The Great Greene Heist*, *Half Magic* and *Better Nate than Ever* to name a few. As we transitioned into the winter, our class dove into reading opportunities that focused on stories driven by powerful settings and/or language. As student’s dove into novels such as *When You Reach Me*, *The Wreckers* and *Mockingbird*, they noted how authors used the power of language to evoke specific reactions in their audience.

Finally, we ended the year reading novels that told the authentic stories about the Japanese-American Internment and its impact on the people who were displaced. Additionally, these novels were directly connected to our Japan theme study. Whether reading a shared novel for book groups, an independent reading selection for pleasure, or completing a homework assignment, students are provided with clear structures to develop their skills as both a reader and writer. Although many elements of storytelling were explored this year, special attention was paid to setting and character development to prepare students for the two major writing assignments of the year.

In preparing students to recognize and create their own rich settings, it was important to first model careful reading of texts. In completing several activities titled, “Where Am I?”, students were taught to slow down at the beginning of each chapter and be clear on where the character is and how they got there. Furthermore, they were asked to continually pull details and quotes

from the text to support their thoughts. As students gained increased comfort noticing details about setting, they were provided with opportunities to notice how authors developed more complex environments for their characters. One such skill modeled throughout the year asked students to think about setting as levels of systems. In an exploration of our first read-aloud for the year, students noticed that a story's setting can involve microsystems, the spaces closest to a character, mesosystems, including government, news and geography that are larger than the community, and finally, the macrosystem, which could include events around the globe.

We began our first major writing project of the year with a focus on developing setting and suspense through powerful language. Consistently noticing and recording examples of powerful language in reading provided the perfect context to explore these skills as writers. Students used the book, *The Mysteries of Harris Burdick*, as inspiration for their first fiction stories of the year. This book, written by Chris Van Allsburg, is a collection of photographs and captions designed to inspire authors and generate stories. Many of the students were drawn in by the suspenseful and mysterious nature of these images and captions. Through their stories, students explored how the images in the book could inspire vast settings in their tales. In this writing project, students were also exposed to the idea of a story mountain. We discussed how suspenseful stories often build in peaks to a final climax. The result of this project were stories so intense and suspenseful, we saved many of them for our end of the year campfire!

Once students had a firm grasp on how to recognize and create rich settings for stories, much of our language arts focus shifted towards exploring character. During the middle of the year, we spent our read aloud time focused on exploring Ancient Japanese stories. Many of these stories take on parable like structures, focused on characters with extreme attributes. In one early activity, students were asked to notice various elements of character, focusing specifically on their feelings. After students had practice noticing the way characters act, speak or think, we explored how these attributes interact with setting. In one such activity, called "Two-Sided Problems", we asked students to notice how characters interact and deal with their environment, internally and externally. Through a great deal of modeling and rich exploration of Ancient Japanese tales, students made advanced connections, clearly evident in their final major fiction writing assignment of the year.

Our final writing assignment of the year was centered around an exploration of the performance art form known as Kamishibai. Simply stated, Kamishibai is a form of readers' theater in which the audience views illustrated cards on one side, while the performer reads the story from the other. Additionally, many Kamishibai stories were modified versions of the Ancient Japanese stories we were reading. Kamishibai has a much richer history than can be conveyed here, but there are many resources easily accessible through a google search. We were extremely lucky that we did not need google, as one of our first/second grade teachers, Marea, has a family with a rich history linked to Kamishibai. To begin our unit, Marea joined our class and presented several Kamishibai stories in the format seen in Japan between 1890 and 1948, discussing the cultural and historical climate that led to the rise of this unique brand of performance art.

As we drove full bore into our Kamishibai unit, we began with the question, “What is Kamishibai?” Through exploring this question, we came to realize that creating great Kamishibai involved how we write our stories, and not simply what stories we choose to write. As a result, we examined many Kamishibai stories and techniques, noticing and wondering what made Kamishibai unique. Immediately, students noticed that Kamishibai stories have many peaks, a critical element when looking to keep an audience engaged. After we finished examining ancient stories, looking at the peaks along the way, we studied several Kamishibai performance techniques, examining the interchange between how illustrations change how we experience literature, and how literature can change art.

We also wanted to support the students in developing their illustration skills during this unit. Drawing what you are thinking in your mind is a challenging task, but one that can be instructive. To help students take these images out of their mind, and represent them on paper, we invited cartoonist Jude Killory to class. Jude had an amazing aptitude for helping our students breakdown complex visual ideas into simple shapes. Using his method of illustration, students were immediately launched into thinking about how a character uses the white space on a paper to tell a story. As an artist, it was wonderful to see students producing page after page of sketches, thinking about how individuals move, interact with each other, the setting and, as a result, with the story being told. The power of our Kamishibai unit was that it created opportunities to develop visual literacy from a constructivist stance by noticing and wondering how art and language shape each other.

Math

Key Skills and Concepts	
Demonstrates strong conceptual understanding Understands and can create visual models Computes accurately Asks questions that demonstrate problem-solving skills Participates actively in discussions Initiates activities and asks thoughtful questions Uses mathematical tools and technology effectively (i.e. geometric construction tools, measuring equipment, computer programs, calculators)	Makes reasonable estimates, demonstrates number sense Uses manipulatives effectively Retains new skills, concepts Sees interrelationships, can reason effectively Develops methods and systems Perceives patterns, infers rules Works neatly, organizing evidence of work effectively

The development of strong mathematical mindsets is truly looked upon as a two year process in the fifth/sixth grade program. As is evidenced in the table above, many of the skills that we emphasize are transferable across disciplines and are designed to help students find mathematical success throughout the course of their lives. That being said, the % program uses

two main programs to teach mathematics. This year, the fifth graders joined the rest of the school in using *Investigations* to teach mathematics to our students. *Investigations*, which ends in fifth grade, utilizes an inquiry-based approach, in which students actively explore mathematical ideas to complete a series of investigations throughout the course of a unit. Because the *Investigations* program ends in fifth grade, our sixth graders made the shift towards using the *Illustrative Mathematics* program for all the same reasons we love *Investigations*.

Both *Investigations* and *Illustrative Mathematics* are spiraling curriculum, helping students to make connections across a wide range of mathematical concepts that are often separated in less progressive academic settings. However, to add clarity, each of the main concepts explored in fifth and sixth grade are described in isolation below.

In fifth grade, a student's course of learning centers around four main domains: multiplication and division; geometry; fractions, decimals and percents; and pre-algebra. The work builds on what students have done in past years, revisiting and expanding their skills and understanding. Students began the year developing number sense specifically required to understand multiplication and division. Spiraling through several units, students explored multiplication and division through multiple modalities. As students completed these early investigations, they began to see the abstract connections between area, volume, and multiplication. Additionally, through exploring number puzzles and dot patterns, students had many opportunities to examine the role of factors and multiples in solving multiplication and division problems. As we progressed through the year, students were exposed to two main algorithms for solving multiplication and division problems. Students' work on multiplication and division algorithms started in the form of the partial product and partial quotient methods. These methods focus on constructing and deconstructing target numbers to help students better focus on what is conceptually happening when they multiply and divide. Towards the end of the year, students learned the U.S. Algorithm for multiplying and dividing, taking time to compare this process to the partial product method, noting the importance of place value in each of these operations.

As a curriculum geared towards the study of all strands of mathematical understanding, *Investigations* had many opportunities to explore Geometry. Early in the year, students began their study of geometry with an investigation of volume. One of the students' main investigations involved a business venture making boxes. In this investigation, students needed to develop several boxes that fit multiple constraints and needs, helping them make connections between comparative volumes and the relationships of factors and multiples. Later in the year, students moved on to exploring two dimensional shapes. In this unit, students began by creating various tessellations. As students created beautiful designs, we examined the relationship between perimeter and area, noting how total perimeter and area changed as our tessellations grew. These activities set students up to take on the challenge of doubling and tripling complex tessellated designs. Additionally, as we redesigned our class's chicken coop, students had multiple opportunities for real life application of these skills.

A major focus of the fifth grade Investigations program is to help students to develop a clear understanding of the relationship between decimals, fractions and percents. As students progressed through multiple units throughout the year, an emphasis was placed on creating multiple anchor points for students to understand and recall various fractions, decimals and percents equivalents. Although there were multiple opportunities to practice the skills within the *Investigations* curriculum, many of our most exciting sessions centered around real-world opportunities. Early in the year, students began designing scale replicas of a proposed chicken coop and garden that they would build throughout the course of the year. As the weather warmed, students spent time outside, helping to build our coop. As it turns out, one of the largest incentives to learn accurate measurement involves having to walk around the building three or four times to re-cut a piece of wood because it does not fit!

Our final major investigation of the year centered around students examining sets of data, and using algebra to generalize the patterns and trends. Student's first exploration of data, began as a two-week mini unit in February. Over the course of two weeks, students engaged in various math workshops which explored the use of data when playing games with dice and cards, applying data to understand what percentage of people like Marvel or DC Comics and finally, to create a portrait of what 5th and 6th grade students at Miquon like and dislike. Towards the end of the year, the stars aligned neatly, as fifth graders began work on our class's annual Social Justice Data Fair and, at the same time, started their algebra work in Investigations. In this major, and final investigation of the year, students examined the growth rate of fictitious animals on an alien planet named Rommarh. Students were asked to note the growth patterns of various animals, and with modeling, successfully learned how to generate algebraic expressions from sets of data. Overall, it was a fantastic unit and a strong way the end student's 5th grade year in mathematics.

Early in 6th grade, students are asked to begin to think about mathematics in more abstract ways. In one of their first units, students learn to understand the difference between ratio and rate, with a main focus on exploring equivalent ratios, constant speed and constant rate. As they progressed through several units, they begin to be able to recognize when two ratios are and are not equivalent, and develop an ability to represent equivalent ratios and rates with diagrams and tables. As students became more confident representing rate visually, they started to explore ideas of unit rate, speed, pace and the relationship to percent and percentages. In one exploration, students looked at incredibly large buildings, thinking about how much time it would take to travel from one point in the building to another or how long it would take to clean all the windows of a skyscraper given a constant rate.

Expanding their understanding of fractions from fifth grade, students in sixth grade learned the logic and method behind multiplying and dividing fractions. Throughout the course of the year, students examined how the relative sizes of numerators and denominators affect the size of their quotient when the numerator or denominator is a fraction. Additionally, a large focus was placed on the connection between multiplication and division, and how multiplying a reciprocal helps solve division problems involving fractions.

In addition to having multiple opportunities to work on designing and building our classroom’s garden and chicken coop, sixth grade students also had several opportunities to develop their geometric understanding through the Illustrative Mathematics curriculum. In one early, major unit, students learned to find the areas of polygons by decomposing, arranging, and composing shapes. This unit also focused on understanding both parallelograms and triangles, using the terms base and height to find their areas. As students developed their mathematical intuition, they became more adept at approximating areas of non-polygonal shapes.

Finally, students ended the year with direct instruction on algebra concepts, building on ideas learned in fifth grade. We first exposed students to solving algebraic equations using the Hands-On Equations method. This method represents algebraic equations on a balance scale, helping students to understand that an equal sign does not simply mean answer, rather it represents equivalency. As students gain comfort solving these problems using concrete models, they begin to learn more abstract processes and terms such as order of operations, variable, equivalent expressions and exponent. This mixed method approach to helping students make the leap from concrete to abstract thinking has been one that has demonstrated success over many years.

Social Studies

Key Skills and Concepts	
Reads non-fiction materials, resources effectively Locates relevant information effectively Shows interest in current events Makes and reads tables and graphs Demonstrates good basic geography skills Demonstrates effective note-taking strategies for collecting and synthesizing information from a variety of sources	Demonstrates strong background knowledge Summarizes information clearly Synthesizes ideas, adding insight and perspective Participates in class discussions Initiates activities and discussions Combines research from a variety of sources into a cohesive written report and presentation

Over the course of their two years in the fifth and sixth grade program, students explore two major essential question sets as a part of their theme work. These question sets are, “What gives a person or group of people their worldview, and how are those worldviews revealed in culture and through group identity?” And, “How do big changes in the world affect and challenge worldviews and create conflict, and how do humans try to resolve those conflicts?” Given how large and overarching these questions are, our theme topics can vary year-to-year based on current events, student interest, and local and community opportunities. This year our class took a deep dive into examining the art and architecture of Japan.

A major driving factor for this study was the practical need for our class to design and rebuild a chicken coop for our classroom. Given our proximity to Shofuso Japanese garden and tea house, as well as many other opportunities to explore Japanese art and architecture, it seemed like a prime opportunity to use Japanese architecture as a major stylistic influence for this new structure right outside of our classroom. Over the course of the year, students worked with Miquon parent, architect and teacher, Robert Fryer to learn more about Japanese architecture and to design our new coop. After multiple field trips, and an advanced study on how the geography of Japan influenced its architecture, students developed a successful design for our chicken coop, embracing many of the elements studied.

In addition to practical hands-on experience building a structure in the style of a Edo-Period Tea House, students had additional opportunities to explore the culture behind Japan's rich art history, including multiple sessions practicing indigo dyeing as we learned the ancient art of Shibori. As we began our broad investigation into Japanese culture, students each elected to examine one particular facet of Japan. In a research process known as Become An Expert or, BAE, students learned a variety of research skills needed to ask a question about Japanese culture and then answer said query. Students took on a wide range of topics from Japanese music to Ukiyo-E style painting to the development of modern Japanese transportation systems to even exploring cultural diffusion through Japanese soda. Throughout all of these explorations, the idea of learning through work, under the guide of a master craftsman, continued to emerge. As a result of this, we designed our end-of-the-year trip as an opportunity to work with several craftspeople, learning their trade, and exploring what drove them to work with passions similar to those of the Japanese masters we studied this year.

In the spring, students took a major pause from our yearly exploration of Japan to engage in our class's yearly Social Justice Data Fair. The main goal of the Social Justice Data Fair is for students to research an issue that is meaningful to them and share their learning with others. In the beginning of this project, students went home and asked their family members, "what kinds of social justice issues do we care about?" Armed with several ideas, and lots of questions from these conversations, students began preliminary research on a host of topics centered around social justice issues. Building on the BAE process taught earlier in the year, students learned to develop essential questions that would ultimately be used to craft a thesis statement. As they began to investigate their topics, a special emphasis was placed on using bar graphs, line graphs, pie charts, scatter plots, ratios and other forms of statistical data to make comparisons and judgments about their topic. During the course of this project, students were taught how to interpret statistical information and use it to form an educated opinion, or thesis. The result of all of this hard work was the development of a paper that presented both their thesis and relevant data to support their arguments. Additionally, students produced large posters outlining their arguments and supporting data, which they used to teach parents and third and fourth grade students about their topics, prompting further conversation and action within our wider community.