



## **2017-18 Curriculum Report**

### **June 2018 Entry**

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#### **The Group**

As many community norms and practices were in play by December the class could now focus on working together as a group to make decisions, solve problems and accomplish tasks. This process was aided by much of the social-emotional learning that occurs early in the year as all of the students now shared a common language and norms that are critical to working out challenges that come along with working as a group.

Major community and daily routines that occur in our classroom throughout the year include making and delivering lunch sales, conflict resolution through restorative practices, completing classroom jobs, deciding on collective class actions and planning our end of year trip. In addition to these class-specific routines there are several other rhythms that define the fifth/sixth grade experience at Miquon:

- Sixth grade leading the good of the school
- Fifth/sixth grade weekly morning sing
- Sixth grade run pretzel sales
- Welcome back breakfast, prepared by teachers
- Buddy relationship with Maria and Rich's group

#### *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 students prepare the ovens for cooking, count and lay out all orders and get the food in the ovens for cooking. Additionally, students learn to take a lead role in the assembling and delivery of all lunches. This is a fantastic classroom norm as it demonstrates the importance of precision, specific skills and speed in a situation that has high levels of accountability to customers such as hungry kindergartners.

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 which include completing recycling for the entire campus, caring for our chickens and learning to wash dishes and clean a kitchen.

### *Social-Emotional Learning*

In terms of social-emotional learning, we began the year by providing students with a variety of tools that they can use to reflect on their own learning processes, strengths and challenges. These included an executive function and learning self assessment. Students used these, along with abbreviated conference notes to reflect on their strengths and areas of growth. Out of this reflective process students set individual goals for the year. These goals were broken down into actionable steps for each student, included a timeline and periodic follow-up meetings.

Midway through the year we incorporated all faculty training on the Zones of Regulation into our classroom culture. Students learned about the major regulatory systems in their bodies, how they work and techniques for how to better control them. Using both describing words and graphic representations (similar to emojis), students labeled their emotions and their reactions to situations and also labeled where in their bodies they noticed these reactions building. Building on the capacity to recognize and regulate emotions benefited many students throughout the year and eventually became a part of our shared vocabulary within our classroom.

### *Conference Week*

During spring conference week, the two 5th/6th grade classes worked with Jeri, Mark, Gabi Isaac-Herzog and Mariama Koroma O'Brien. The theme for conference week this spring was "Creating Utopia." We explored the idea of cities, their components, and their design. What is it about a particular city that draws us? What are the important components of a city we need to sustain us in the future? Planning a city is an act of community participation which hopefully promotes economic development, enhances human services, improves educational opportunities, assures safety, provides access to transportation, and preserves human dignity and quality of life.

In groups of 4-5 students, we dared to create utopian cities of our own design, and in the process, learn about where we live now and how we could cultivate it into something better and sustainable for future generations. As prime inspiration for our city planning project, we watched sections of "A Convenient Truth - Urban Solutions from Curitiba, Brazil," a documentary about a city that made major changes in transportation, trash and recycling, housing, and parks to better serve their citizens and become more eco-friendly and sustainable. Because of our shortened, snow-enhanced week, we only watched parts one and two, which focused on revising their transportation and trash and recycling systems. The students used what they learned to revise and incorporate some of those ideas into their own city plans. With lessons in geography and government under their belts, students produced plans for seven cities by the end of the week!

One of the favorite activities that we try to do every conference week is a trip to the SHARE Food Bank in Hunting Park. Our local SHARE is “part of a national network of Shares dedicated to expanding community access to wholesome, affordable food.” These trips always make the teachers so proud of our students. They take this activity seriously and work collaboratively to complete the assigned tasks. And so on Monday morning of Conference Week, we headed out to SHARE with both 5th/6th groups. While there, the children organized themselves into four teams and proceeded to pack boxes of food for families. As instructed, they weighed and filled 289 boxes with individual bags of white potatoes and onions -- all in 35 minutes!

### **Personal Projects**

In preparing students for entry to middle school we create opportunities for our fifth and sixth graders to gain increasing 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.

### **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. Digital Citizenship: the place of digital media in a balanced life, cyberbullying, safe online talk, presenting yourself to a bigger world, being an upstander, the idea of a digital footprint
2. Healthy Choices: 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
3. 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.

## **Social Studies - Integrated Curriculum**

As explained in our December report, our students this year examined the essential question, “How do we make the world more sustainable?” During the second half of this year, our work addressing this question led us to a deep exploration of income inequality, poverty, and racism.

Given the current rise of global nationalism and a more public and open discourse on the history of racism in our country and its lasting legacy, it is incredibly important for students to have a space to come to a deeper understanding of the origins of racism. Exploring history through this lens also provides students with an opportunity to understand how individuals view of the world impacts their actions. Another main goal of this unit of study is to introduce students to a broad longitudinal study that demonstrates cause and effect over time. Finally, because of the current state of our world, this exploration also helped students to understand events that are being discussed all around them. As a result of the interconnectedness of racism in our world this study was a perfect lens to teach good citizenship, care and compassion, the cornerstones of any ethical, social scientific study.

Before we left for winter vacation we looked at the issue of urban sprawl and how populations of people moving out of the cities are causing an environmental impact on areas previously considered rural. We looked at this issue from many sides and, as we transitioned into the Society, Politics and Government portion of our Sustainability study we were curious about what caused this social phenomenon. If we had plenty of houses not being used in the city, why were we building new ones in the suburbs?

### *Income Mapping*

We began by having students watch a video on [Income Inequality in America](#) and explore the [Stanford Center on Poverty and Inequality](#) income segregation maps. These maps clearly showed the students that between 1970 and 2007 wealthy individuals in the Delaware Valley saw their incomes increase by an average of \$42,000 a year whereas income has decreased for poor individuals by an average of \$13,000 a year. These maps also showed a clear geographic pattern of wealthy individuals moving to the suburbs, poverty concentrating in the city and the middle class disappearing altogether. These maps provided a confirmed case study of the data presented in the video.

After seeing these clear trends, students used our document projector to overlay another map on a copy of the income distribution map we prepared. The map showed clear segregation not just along the lines of economics, but that these disparities also mirrored racial segregation in the city. From these combined maps students saw that whatever factor was causing income segregation patterns was also disproportionately impacting families of color in the Philadelphia area. We discussed possible correlations between these two factors and determined that if there were systems we could identify that caused income inequality that there also must be the same or similar systems that are causing this disparity in race.

### *Redlining and Racism*

It was at this point that we introduced students to the idea of [Redlining](#). After examining this government policy from the 1930's and realizing that the policy that created the white middle class in America also discriminated against families of color was a huge paradigm shift for students. At this point, they began to ask a great deal of questions about what other systems created similar impacts? We hypothesized several areas that could be linked including access to education and arrest and incarceration rates.

It was at this point that students attempted to define what pattern we were observing in this information. Several students said that this was racism. Pausing on this topic, we asked the students to define racism. Several responses mirrored common conceptions about racism, "Racism is when people don't like people of another race" or, "Racism is when people say demeaning statements about people of another race."

Although these were very articulate reiterations of popular understandings about racism, they missed its wide-reaching impact that we see in the maps and data. The racism we observed here were not just about an individual's feelings about another individual. Rather, what we observed were systems that hand a clear advantage to one group and not another group. It was at this point that one student called out "power!" This student said, "racism is about power." It was at this point that we arrived at our class definition of racism. Racism = Bias + Power. As another student noted, "we all have our biases about each other, fears, questions about things that are different. However, it is those that hold power who extend their bias quickly into national policy."

It is through this more complex lense of the embedded systems of oppression that students begin to gain a complete understanding of the mechanisms and impact of systemic racism. Given the conclusions students drew from the geographical patterns we observed, the class determined that coming to a deeper understanding of the origins of racism was now a main priority.

### *Origins of Racism*

Given the focus question, "What are the origins of racism?" the class wondered if there was ever a time when racism did not exist? To answer this question students "traveled back in time" to investigate the earliest humans and their society and movements and look for clues that helped us to untangle this complex question. Student's first exploration of this topic involved an exploration of the work of geneticist Spencer Wells who in his documentary, "The Journey of Man," which chronicles his work as a professor at Princeton as he sets off to prove that all humans originated in Africa and that these hunters and gatherers began migrating out of Africa due to global weather changes. Students also explored an interactive timeline map that gave further detail on the push and pull factors that led humans to spread all over the world.

Moving on to our next major turning point, the colonization of the Americas students read select passages from James Lowen's book, *Lies my Teacher Told Me*. Students investigated a chart

that demonstrated that Afro-phoenicians and Asians had contact with the Americas thousands of years before 1492. Students noticed a pivotal point in this reading which was the emergence of the concept of “the other.” Lowen argues that before 1492 Europeans had many interactions with Arabs, Asians and Africans. However, Europeans’ first contact with the Americas was a paradigm shifting event that took the people of this continent from seeing themselves as primarily French or Tuscan to now noticing their cultural similarities in ways that their contact with Africans, Arabs and Asians never provided. It was at this point that many students articulated that the peoples of the Americas provided a contrasting view of the world that unified this sense what it meant to be “European” and more particularly “white.”

Shortly after this, students researched the emergence of the Transatlantic slave trade and the solidifying of formal systems of oppression based primarily on race. Students investigated the slave trade with an interactive online map in which they can see the increase of the slave trade from the early 1500s to 1860. This map also contained information on each ship’s log, the number of slaves it took, the points of origin and destination and eventual disembarking and sale of those slaves. We also looked at a number of primary sources describing the process of being captured, sold and transported as a slave.

Additionally, to integrate creative writing into this process, students “invented” their own time machines and personalities and created periodic time travel journals in which they envisioned going back to these time periods using writing and drawing to describe what they saw from a first person perspective.

### *Integrating Geography*

Students also participated in a variety of geography-based activities during this time including the Mystery classroom program that uses photoperiod, longitude and latitude as well as cultural clues to help students find a mystery classroom that is located somewhere in the world. Additionally, to support our work around patterns of human migration, Jeri and Gabi worked tirelessly with students to help them build an internal map of the world so that they have a solid geographical schema that will allow them to easily contextualize information in more traditional history classes they are likely to encounter. This work began with students creating labeled maps of the world on a blank piece of paper from memory. Dependent on the level of detail students were assigned individual learning goals in geography. The main point being to expand students geographical literacy beyond their current level of knowledge. Students responded phenomenally to this program with most students learning all of the continents, oceans, states and capitals. Some students that were up for a greater challenge and moved on to memorizing all of the countries and capitals on continents such as Asia, Africa and Europe.

### **Language Arts**

Just like earlier in the year with our biography and genre study, much of our reading a writing this quarter has been focused within the context of our social studies unit. Students have had multiple opportunities to be exposed to a wide variety of reading and writing opportunities as a result of our sustainability study.

Through the lens of sustainability, students spent a great deal of time reading selections of primary and secondary historical sources. They developed as writers using free write reflective methods, examining and interpreting sources through note taking, and practicing the think-pair-share method, or in this context, write-pair-share.

### *Reading Groups*

Over this spring, students were also a part of reading groups that stretched across the building and offered a wide variety of fiction-based reading and writing opportunities. Books included:

- *A Monster Calls*, by Patrick Ness (inspired by an idea of the late author, Siobhan Dowd)
- *Holes*, by Louis Sachar
- *A Wrinkle in Time*, by Madeleine L'Engle
- *Hatchet*, by Gary Paulsen
- *The Watsons Go to Birmingham, 1963*, by Christopher Paul Curtis
- *Once Upon a Marigold*, by Jean Ferris.

The groups met weekly, reading around a quarter of the book between each session and supported by activities to help scaffold the reading, such as noting interesting words, planning discussion questions, mapping the setting, noticing plot twists, and observing character traits.

### *Writing*

In terms of creative writing, students made time travel journals in which they wrote in first-person narrative style to discuss clues they were discovering about the emergence of modern day racism and inequality. This activity focused mainly on continuing to construct paragraphs that communicate succinct and focused information in a creative and expressive way. We also emphasized grammar, spelling, and the use of specific vocabulary to improve clear communication of ideas.

Students also had an interesting opportunity to explore writing in a mathematical context through our social justice data fair project. This project provided students with an opportunity to explore an area of social justice of interest and collect mathematical data to help them understand this problem at a deeper level. This project seamlessly integrated writing into the process as students were required to interpret their quantitative findings through writing and connect them back to their essential question in a meaningful and coherent way.

Rich writing opportunities were also infused throughout the curriculum and daily routines including various written reflections for milestones including the completion of the trip, the ending of our sustainability unit and the descriptions of our individual sustainability projects.

### **Math**

The majority of our math curriculum is experienced in the context of small math groups that stretch across the building. After completing a lot of data collection and analysis work related to

the social justice fair in January, small math groups reconvened in early February into groupings determined by pace, learning style and skill level. The specific make-up of the groups shifted periodically during the year, both in terms of the children and the teacher.

*Fifth Grade Groups*

Fifth grade groups tackled a wide range of topics including working with fractions, decimals and percentages. Others explored the connection between the ideas of fraction/decimal/percent much more closely. Groups also did work in geometry, exploring properties of parallel and perpendicular lines, polygons, perimeter, area, and angles as fractions of circles. Some fifth graders applied those ideas as well as the idea of volume to design and measure space for a bookshelf that students designed in our classroom.

*Sixth Grade Groups*

In sixth grade, having applied their understanding of multiplication and division to solve multi-step problems following the order of operations, most sixth graders explored the basics of pre-algebra with some working with Hands-on Equations, an excellent program that introduces balancing and solving equations -- first concretely, then symbolically, and also in connection to word problems.

Geometry was also an important part of the year as well, and included work in two and three dimensions, manually constructing shapes and forms with nets and with compasses. Some sixth graders applied those ideas to design and measure space for a project in our classroom as well.

Below are the key goals described for the 5th and 6th grade programs adopted from the National Council of Teachers of Mathematics (NCTM) *Focal Points* (students who have moved beyond these goals are given opportunities to explore appropriate and relevant content):

<b>5th Grade</b>
<i>Number and Operations, Algebra</i>
<ul style="list-style-type: none"> <li>&gt; Develop understanding and fluency with division, using understanding of place value and the relationship of multiplication to division</li> <li>&gt; Use the context of the problem to determine the most appropriate form for the quotient (including the remainder)</li> <li>&gt; Develop understanding and fluency with addition and subtraction of fractions and decimals, including problems involving measurement</li> </ul>
<i>Geometry, Measurement, and Algebra</i>
<ul style="list-style-type: none"> <li>&gt;Develop understanding of 2dimensional shapes, including formulae for perimeter and area</li> <li>&gt;Develop understanding of 3dimensional shapes, including concepts of volume and surface area</li> </ul>



>Explore data analysis, including graphing and ordered pairs on coordinate grids

## 6th Grade

### *Number and Operations, Algebra*

> Develop fluency with multiplication and division of decimals, multiplication and division of mixed numbers and fractions, and addition and subtraction of mixed numbers and fractions with unlike denominators

> Understand the proportional nature of ratio and rate

> Write, understand, and use mathematical expressions and equations

### *Geometry and Measurement*

> Identify, describe, and construct 3dimensional shapes, extending the 5th grade work in this area

> Analyze their properties, including surface area and volume

> Find and justify formulae for area, perimeter of 2D shapes, and surface area and volume of polyhedra and prisms.

### *Social Justice Data and Analysis*

In addition to the work that students have been doing in their small math groups, the class practiced applied mathematics through their social justice data fair projects. The major focus of this project was to expand students' thinking of math as a useful tool to investigate the world.

This process involved students asking a specific question (or an "essential question") about a topic related to social justice and then researching quantitative data about those topics. Students then interpreted this data and in many cases transformed it into graphical representations that connected their quantitative evidence. The students then interpreted these findings to help answer their essential questions.

In preparation for presenting their findings, students engaged in a tremendous amount of ground work with scaffolding starting in January. A portion of the social justice data fair involved interpreting data and describing it using precise mathematical vocabulary in an attempt to prove their thesis.

One morning students walked into class to see a variety of graphs, maps, and spread sheets hanging on the walls. Students came up to the board and wrote down as many math terms as they could think of including minimum, maximum, range, median, mode, correlation, trend and so on. Next, students walked around the room and wrote on sentence describing something about each set of data using one of the words that we brainstormed. The process of looking at a data set and writing all of the information students are noticing in no particular order was a great

way to brainstorm methods of analysis and descriptive phrases used in constructing more organized descriptions of mathematical patterns.

Once we had many ideas written on each of our pieces of data, students teamed up into small groups and took a pair of scissors to cut out each individual sentence. Once students organized that information in a logical order it was time to assemble them into a paragraph. Remembering our four step paragraph structure, we asked to students to identify which sentences fit best as the topic/introduction, setup, evidence, and analysis. The students taped together the cut-out sentences in this order and used green Flair pens to write the information that was not present.

Through this project students gained an understanding of how to interpret data and make sense of it in relation to real world problems. Finally, they were able to practice accurate use of precise terminology when describing trends and correlations help to avoid generalizations that have wide-reaching negative impacts on our society.

### **Culminating Experiences**

Two especially important community-building events in the last months of this school year were the student-planned and student-funded end-of-year trip and the creation of physical products designed to solve sustainability challenges that emerged from each student's research earlier in the year.

#### *Year-end Trip*

The focus of the end of year trip emerged out of an experience or piece of our curriculum for the year and represented both student learning and student interest. This year students planned a trip to Washington, D.C. to see (among other things) the work of American folk artist James Hampton. This visit was inspired by our reading of the book, *The Seventh Most Important Thing*, about Hampton and the impact he made through his art.

Students also planned a visit to the Capitol Building by reaching out to our local representative and requesting a meeting to discuss important sustainability issues that impact our local area. We also visited several Smithsonian museums as well as took a trip down the Anacostia River to learn about how urban development impacts the watersheds and thus wildlife of the region. Students funded this trip through their lunch sales which they planned, made, and delivered.

Finally, at the end of the year students took three weeks to synthesize their learning into the creation of a physical product that would make the world a more sustainable place. Students created a variety of projects, some of which will continue next year. These included creating a vacuum forming machine to recycle old bottles into phone cases, identifying beneficial native plantings to diversify our stream, and coming up with several ideas to integrate agriculture into our program!

### **In Closing**

We began the year with many questions, including the overarching thematic essential question, "How do we make the world a more sustainable place?" I am pleased to present our answer. We discovered that in terms of environmental sustainability we should reduce all consumption. If we do need to consume (an inevitable fact of being alive) we should strive to make that consumption as cyclical as possible. This means consuming items that can be reused or recycled and then disposing of those properly. We also saw several examples of individuals defeating racism through curiosity and [non-complementary](#) behavior. Overall, we had some major learnings this year!

I want to extend a warm thank you to all of the volunteers that provided rich experiences for our students, to Mark and Diane for their continuous help and lack of judgement when we went over and randomly ask for bungee cords or some other item, and to the students, Jeri, and Gabi for all of the energy and enthusiasm they brought every day this year!