

Welcome to Science at Miquon!

September 2017

Dear Miquon Families,

Welcome new and returning families! I hope that you enjoyed the solar eclipse last week and put those glasses and pinhole cameras in a safe spot for 2024. As a science educator, it was wonderful to see how excited people were for this natural phenomenon. It was talked about for months, more widely advertised than the latest Minions movie, and free to all! People spent time observing the environment and excitedly shared what they noticed. The eclipse provided a few moments of connection to the cosmic cycles that we tend to ignore in the rush of our daily lives. Most incredible of all, it reminded people that we live on a planet. This one, very special to us, planet.

I continually think about how to create opportunities for this type of connection in the Miquon science curriculum. For our children, I want the world to be both intimately knowable and magical beyond belief. Science is a fantastic tool to explore fascination. A goal for this year (and every year) is to expand the real-life experiences that children have and help them connect their observations with experimentation, evidence, and reasoning. The key [scientific habits of mind](#) are explicitly emphasized as we practice these ways of thinking and doing.

As a specialist seeing each grade, I have a steady, but flexible [core curriculum](#) of age-appropriate units of study that are revisited every year or every other year. This year, fifth and sixth grade students will continue to investigate how the stream restoration project (completed in 2016) impacts macroinvertebrate populations. They will also delve further into biology, ecology, and design through a new study of cricket farming. Later in the year, they will focus on Earth and physical sciences by exploring natural resources and energy consumption through the lens of sustainability. Third and fourth grade students will conduct studies on plant growth and development, decomposition, get to know PA reptiles and amphibians, and practice design skills. First and second graders will explore microscopes, seed studies, bridges, and fingerprint science. Nursery and kindergarten students will extend their classroom play and learning by engaging in a wide range of science topics. I'm sure that the interests of students and teachers will also shape our explorations as the year progresses.

If you'd like to continue learning about the science program, please visit the science [blog](#) or curriculum [site](#). For a little information about my experiences: I studied Bioscience and Biotechnology at Drexel University, taught at a local progressive school for five years, and then went back to school for a Masters in Restorative Practices and Education (an interdisciplinary approach to building community and repairing harm). This is my eighth year at Miquon and I'm thrilled to have my daughter, Pearl, in the nursery. I welcome your input and any communication about your child. Please don't hesitate to contact me with questions, concerns or suggestions.

One more thing, I'd love to see you in the science room! You are cordially invited to enhance the science program by visiting to share your knowledge and skills. I am continually looking for people who would like to share how science is a part of their daily life. Yes, baking bread and fixing toilets count as interesting experiences! Please consider lending your expertise (no matter how humble) to class discussions and demonstrations. The science program has been

greatly enriched by classroom visits, construction work, and gardening help from parents.
Thank you again!

I look forward to another wonderful year of exploration with your children.

With love,

Kate Shapero
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