

Please turn off all cell phones or other electronic devices.
They could distract from, or interrupt, the students' performances.
Thank you.



Hungry?

Check out the goodies available at the MCCPS Café!
Everything is delicious!



MCCPS

17 Lime Street, Marblehead, MA
01945
781-631-0777
www.marbleheadcharter.org



MARBLEHEAD COMMUNITY CHARTER PUBLIC SCHOOL

PRESENTS

A Public Exhibition of Student Work

Wednesday June 17, 2015 6:30 pm - 8:30 pm

Opening Ceremonies

Message from the Head of School

Welcome in Spanish, French, & English

Students: Katherine Palmer, Liam Gildea, & Ben Collette,
Teachers: Kate Lerner Liebowitz & Maria Latusky

8th Grade Power of Persuasion

In Humanities, the students researched a current issue, posed a question for debate, and wrote a persuasive piece arguing their opinions. Their hooks are intended to entice the audience into hearing more about their topics.

MCCPS Board of Trustees

Foundation

Navigator Community Association

8th Grade Graduation Songs

Wagon Wheel by Bob Dylan & Ketch Secor
Keep your Head Up by Andy Grammer
Katie Conlin & Niamh Sullivan on guitar

Volunteer Recognition

Graduation Speeches

Niamh Sullivan & Owen Scola

Closing Remarks

Nina Cullen-Hamzeh, Head of School

Student Exhibitions

Visit your child's grade level Exhibition from 7:00 to 7:45.
See what's to come in the next grade level from 7:45-8:30.
Students will be dismissed at 8:30.

There's a passion for learning at MCCPS that I have rarely seen elsewhere. Via integrated performance assessments, the teachers inspire, intrigue, and challenge the children. This practice results in high levels of student engagement which then enables the children to learn deeply and remember what was learned. From the machine project to bridge building, from the explorers to the reformers, 'doing' the work and 'becoming' the historic figure makes all the difference.

Public Exhibitions of Student Work have been the hallmark of our pedagogy since MCCPS opened in 1995. Our Founders were determined to make learning student-centered and engaging, mindful and meaningful, community focused and individually inspiring. As we celebrate the school's 62nd Public Exhibition of Student Work, the teachers and I remain convinced of the effectiveness of these public events. We have witnessed how the anticipation of an audience can motivate a student to go above and beyond. We have evidence that providing frequent and regular opportunities to tackle real-life challenges fosters in the children the habits of perseverance, initiative, leadership, and problem solving. As other schools are abandoning project-based learning in favor of test prep, we remain convinced that Exhibitions induce high levels of growth and achievement. As you tour the building, be sure to study 'The Anatomy of an Exhibition Project' in each room. These displays will enable you to better understand the components of each project.

As the year comes to a close, please remember to thank the teachers for all that they have done for your child (and you). They are an extraordinary group; their passion and skill are integral elements of our success. Thank you for joining us tonight, and thank you for being a part of our community.

*Sincerely,
Nina Cullen-Hamzeh, M.Ed.
Head of School*

Volunteers

November 2014 — Parents: Amy Ruocco, Mary McRae, Jodi Gildea, Barbara Johnson, Tracie Hines, Pam Castner, Helen Riegle, Maureen Kay, Laurie-Sue Rodrigues, Leah Piepgras, Kevin Driscoll, Carrie Killeen, Jenny Armini, Anathea Waitek, Lisa Loudon, Ann Wachtel, Lena Robinson, Christine Durkin, Amy Leveroni, Susan Conlin, Terri Tauro, Alexandra Jaffe, Beth Duffy, Rosie Segil, Meghan McGowan, Beth Hoffman, Alison Williams, Beata Grabowski, & Dr. John Sullivan

Community Members: Judy Arnold and Martin Ball (retired teachers), Charlene Bauer of the Metro Credit Union, & Penny Wigglesworth of the Penny Bear Company

November 2013 — Amy Leveroni, Rosie Segil, Jodi Gildea, Enid Laganas, Peter Jalbert, Maureen Kay, Andy Laband, Michael Gitelman

March 2014 — Patricia Rietti, Fiona Barrett, Paula Gold, Malcolm Hersey, Helen Riegle, Emma Amsler, Pam Castner, Sarah Arnold, Bill Laganas

June 2014 — Avery & Nelson Russell, Paula Gold, Barton Hyte, Lisa Hooper, Meg Huber, Steve Maclone, Andrea Kremer & John Steinberg, Lori Sherf, Andi Oberlander, Lena Robinson, Keri Snook, Seth Pappas, Mary McRae, Audra Barrie-Cunningham, Sabina Amsler, Suzanne Wright, Judy Arnold, Tom Lawler

November 2012 — Susan Munafo, Stephanie Scola, Barton Hyte

March 2013 — Laurie-Sue Rodrigues, Rosie Segil, Laura Jalbert

June 2013 — Holly & Dr. John Sullivan, Norma Ross, Robin & Emil Ronchi, John McEnaney, Robin & John Krivit, Ellen Long Keller, Ira Keller, Patty Forster, Cathy & Mike Cothorn, Jack Buba & Kim Roberts, Julie Pottier-Brown, Tien Truong

Thank you for being involved in the life of MCCPS.

By doing so you have helped to empower the children to reach their highest potential – intellectually, artistically, socially, emotionally, and physically.

Your energy, enthusiasm, and expertise are greatly appreciated!

Volunteers

June 2015 — Helen Abdel-Salem, Carl & Maddie Acosta*, Melissa Aizanman, Emma Amsler, Sabina Amsler, Jenny Armini, Judy Arnold*, Philomena Asante, Paul Baker, Meghan Baer, Fiona Barrett, Jennifer Barz, Dizzy Burns, Cindy Canavan*, Karen Chemel, Tim & Jodi Carroll, Pam Castner*, Marietta Collins, Michael & Jennifur Condon, Justin Consigli*, Heather Dalton, Birgitta Damon, Susan Dobscha, Christine Durkin, Rob Ferro & Jen Jewell, Jen Finnegan, Danielle Fletcher, Jodi Gildea, Michael Gitelman, Paula Gold*, Wendy Gonzalez, Beata Grabowski, Alex Green*, Yvonne Greene, David Hausler & Annie Wachtel, Tanya Hawley, Patricia Hazelton*, Tracie Hines, Beth Guidry Hoffman, Ramsey & Lisa Hoguet, Katie Hope*, Ian & Claire Hunt, Catherine Ianchulev, Peter & Alexandra Jaffe, Peter & Laura Jalbert, Kathleen Jasaitis, Mike & Barbara Johnson, Michaela Kapp, Maureen Kay, Courtney Kelly, Carrie Killeen, Andi Kohn, Annie Krivit*, Mirek Kutnik*, Enid Laganas, Jenni Leikikk, Theresa Leinberry, Chas & Amy Leveroni, Jacqui Lewis, Kathleen Lewis, Dave & Liliana Liile, Melanie Lloyd, Lisa Loudon, Eva Marks, Jill Mattina, Stephan McCallum, Paul McCarthy, Megan McGowan, Mary McRae, Jessica Merriam, Susan Munafo, Zach Newell*, Dina O'Connor, Kay O'Dwyer, Beata Pantzer, Doug Perkins, Henriette Perkins, Leah Piepgras, Kari Pike, Kim Piver, Brenda Pluss, Helen Riegle, Francesco & Patricia Rietti, Lena Robinson, Gerrick & Laurie-Sue Rodrigues, John & Samantha Rosato, Amy Ruocco, Nikki Sabin, Joan Sachs, Kim Schillinger, Doug Schluter, Ken Schulman*, Stephanie Scola, Tim & Jean Sheehy*, Lori Sherf, Elizabeth Scroope, Rosie Segil, Heidi Shore, Jeanne Smith, Keri Snook, John Steinberg*, Will Steinberg*, Jen Stoddard, Michelle Stout, Tim & Katie Sullivan, Lynne Sullivan, Megan Sweeney, Terri Tauro, Lisa Thibodeau, Nichole Thompson, Christine Tierney, Olga Tolstopyatenko, Vitaly Vatnik, Heather Wagner, Anathea Waitek, Cheryl Wall, Dana Weeder, Emily Westhoven, Michael Wheeler, Robin Windom, Misty Wykes, Linda Zamorano

*Alum, Alum Parent, or Community Member

March 2015 — Parents: Emma Amsler, Sarah Arnold, Fiona Barrett, Cathy Bowden, Dizzy Burns, Heather Dalton, Beth Duffy, Jodi Gildea, Michael Gitelman, David Hausler, Laura & Peter Jalbert, Catherine Ianchulev, Alexandra & Peter Jaffe, Maureen Kay, Courtney Kelly, Amy & Chas Leveroni, Lisa Loudon, Christine Lucas, Stephen MacCallum, Jill Mattina, Paul McCarthy, Meghan McGowan, Mary McRae, Jessica Merriam, Henriette Perkins, Leah Piepgras, Helen Riegle, Francesco Rietti, Lena Robinson, Laurie-Sue Rodrigues, Samantha Rosato, Amy Ruocco, Nikki Sabin, Stephanie Scola, Doug Schluter, Rosie Segil, Lori Sherf, Keri Snook, Jen Stoddard, Laurie Swope, Terri Tauro, Anathea Waitek, Dana Weeder, Emily Westhoven, Cyndi Wilkins, and Misty Wykes
Grandparents: Dory Loudon and Dan Lynch
Community Members: Cindy Canavan, Pam Castner, Paula Gold, Patricia Hazelton, Katie Hope, Zach Newell, and Ken Schulman

Founding Faculty Award

2014

Robert E. Erbetta

2013

Carol McEnaney

2012

Pamela Haley & Eileen Perry

2011

Adria Smith

2010

Jeffrey Barry

2009

Rebecca Perry

2008

Randy Sigler

2007

Ann Chandler

2006

Matt Cronin

2005

Francine Rinfret-Cronin

2004

Molly Wright

2003

Deb Galiel

2002

Kay O'Dwyer

2001

Felice Koslen & Nina Cullen-Hamzeh

2000

Katie Sullivan

1999

Pamela Miller

4th Grade

Global Theme: Communities and Individuals

What makes a community?

Students will understand...

How communities develop and evolve

That there are similarities and differences
within and among communities

That diversity enhances a community

How needs are met within a community

The interdependence of communities

What is my role as a community member?

Students will understand...

The privileges, rights, and responsibilities of
community membership

How people shape and are shaped by groups

4th Grade

Bridges Build Communities and Connect Individuals

During the third term, students studied bridges and the Engineering and Design Process. Students learned about the various types of bridges in the world and why certain designs are favored over others. The focus for the unit was how bridges build communities and connect individuals.

Working in Bridge Company Construction Teams of three, students assumed the jobs of Construction Manager, Architect, Carpenter, and Accountant as they worked together to build a bridge. Students learned to write checks, balance accounts, and work within a budget. In addition, students also maintained a task schedule and worked with other members of their company to accomplish a common goal. Student builders sketched a plan following a building code, purchased materials and created a 3 dimensional prototype based upon their plan.

Performance Time

Students will begin their sharing in opposite advisory rooms from **7-7:30**. Students will conclude their sharing in their advisory room before the band performance.

Students will perform Zorba in the Community Room at **8:00**, on their band instrument.

Questions to Ask the Students

- *What type of bridge did your company build?*
- *Why did your company choose the style bridge?*
- *What were some of the challenges your team faced?*
- *What was the student's role?*
- *What responsibilities did they have?*

4th Grade continued

Wax Museum of Ancient Greece

Students were assigned many quests to accomplish as they studied Greek mythology to better understand its influence on modern society. Students chose a particular Greek god, goddess or hero to represent in the wax museum and wrote their own poems to describe this character. They relied on their own research and reading of myths about Greek gods/goddesses or heroes to write their poems describing their chosen Wax Museum figure. Fourth grade scholars also wrote persuasive letters to Zeus for additional powers or gifts.

In Art, students looked at some ancient Greek and Roman mosaics, and created their own paper mosaics. They also learned about the ancient Greek theatre and designed a tragedy or comedy mask representing their chosen god, goddess or hero.

Students have listened to and learned to play the Greek piece, Zorba, on their band instrument.

Questions to Ask the Students

- *What is the name of the Greek god/goddess or hero you researched?*
- *Why did you choose to be this figure in the wax museum?*
- *What are some interesting things you learned about this figure?*
- *What super powers or gifts did you ask Zeus to grant you? Explain why you asked for that?*

4th Grade continued

Descriptive Writing in French or Spanish

Students learned about descriptive writing in Foreign Language class. This included learning about the verbs “to be” and “to have”, descriptive adjectives and adjective agreement, including colors, parts of the body and animals. Students chose their favorite animal and painted it, labeling body parts. They wrote a descriptive paragraph about the animal, including characteristics of the animal, its habitat and its likes and dislikes. Then, students wrote a poem about their animal, as well.

Performance Times

The work will be displayed in the 4th grade classrooms.

Questions to Ask the Students

- *Which animal did you choose?*
- *What is the animal's habitat?*
- *Which adjectives did you use to describe your animal?*

5th Grade

Global Theme: Communication

How does communication occur?

Students will understand...

That there are many different ways, forms, means to communicate

Factors that influence communication

How to communicate effectively

What are the purposes of communication?

Students will understand...

That communication is used for a variety of purposes

The importance of communicating ideas clearly

5th Grade

The Age of Exploration

Fifth graders embarked on journeys across the seas as well as into their imaginations. Each student has researched an explorer and written a research essay recounting his adventures and accomplishments. In addition, students worked in groups to create a presentation using the Explain Everything App. The focus of the presentation is to convince the audience that the explorer should be nominated to the Explorer Hall of Fame. In art, students created historically authentic maps to represent the voyage of each explorer. In connection with their study of the art of the Dutch Golden Age, students also created Dutch Baroque flower still lifes.

The imagination and ingenuity of the 5th grade engineers will be on display in the Community Room. To demonstrate their command of the six simple machines and the engineering design process, student teams designed and built Rube Goldberg inspired machines that make use of recycled materials to perform a task of their choosing.

Students in French and Spanish utilized their map skills to create a map and design and build a model representing the town of their dreams, with a written description of directions between locations.

Performance Times

7:00-7:30 Group A in 5M-Students exhibit Explorer Essays and Foreign Language projects, and they also share their Hall of Fame presentations.

Group B in Community Room-Students exhibit Machine Project.

7:35-8:05 Group A in Community Room-Students exhibit Machine Project.

Group B in 5M-Students exhibit Explorer Essays and Foreign Language projects, and they also share their Hall of Fame presentations.

8:10 All 5th grade students in Community Room at Machine Project stations.

5th Grade continued

Questions to Ask the Students

- *What were the favored subject matters of 17th century Dutch Protestant art?*
- *What are some characteristics of Baroque paintings?*
- *What was the motivation for exploration?*
- *What were the consequences of the Age of Exploration?*
- *What is a Rube Goldberg Machine?*
- *Does your final machine look exactly like your first drawing?*
- *What part of the machine was easier than you thought? more difficult?*
- *How do your Foreign Language projects demonstrate your knowledge of the global theme of Communication?*
- *What are the community places you included in the town of your dreams?*
- *Where are different people going in your town?*
- *In which directions do people need to walk to get from place to place in your town?*
- *What are the distances in kilometers between the places in your community?*

6th Grade

Global Theme: Change

Cycles and Transformations

What are cycles and where do they appear in our world?

Students will understand...

Where cycles exist in culture

Where cycles exist in the environment

Where cycles exist within themselves

What are the costs and benefits of change?

Students will understand...

How to predict and evaluate the outcomes of changes

That with any change comes gains and losses

That perspective influences perception of change

How do I create change?

6th Grade

Engineering Design Process and
Ecosystem Relationships

Foreign Language: Holidays and Celebrations

Students have used the Engineering Design Process to design, build, and test a car powered by a solar panel. They chose their gears based on whether their design called for power or speed, and tested their choices using a battery pack in the shop, then a solar panel outside. Each student learned how to use an X-Acto knife with safety and confidence, and how to use a DT830B Digital Multimeter to test batteries and the circuits in their model. Students kept a Daily Engineering Journal to record and communicate their work.

Students were introduced to the Great Marsh, a 20,000-acre salt marsh that runs from Rhode Island to the coast of New Hampshire. Through online research, classroom materials, and their experiences at Nature's Classroom, students developed an understanding of the cycles and relationships in the Marsh. Students were required to demonstrate their understanding by responding to a formal writing prompt.

In art, 6th graders learned about artist and ornithologist John James Audubon. They created a large accurate drawing of a bird found in the Great Marsh in its environment, and, based on their research, responded to a writing prompt describing their bird. They also used a variety of materials and media to build tunnel books representing a landscape of a marsh.

In Foreign Language, students learned about holidays and celebrations in French- or Spanish-speaking cultures. In addition to learning a patriotic song from each culture, students chose a holiday to research. They created a Venn diagram to compare and contrast how this holiday is celebrated in the United States, they wrote a paragraph about the traditions of their holiday in the target culture and they created an artifact to represent the holiday, along with a brief description. They also included photos of this holiday being celebrated in the target culture.

6th Grade continued

Humanities

On June 7, 1776 Richard Henry Lee stood on the floor of the State House and made an announcement that made official the debates that had been brewing in taverns throughout Philadelphia: "Resolved: That these United Colonies are, and of right ought to be, free and independent States..." Everywhere the debate raged about the unfair taxes, liberty, and self government.

At exhibition, students are retelling the debates that are at the heart of who we are as a country. Each student read, comprehended, and analyzed a primary source and used that as a springboard to shape a powerful argument. Come down to the sixth grade hallway and experience the birth of our nation.

STOMP: Students have arranged a stomp performance using form in music and understanding of subdivision beat. They will engage the audience and tell a story through their music. Original group stomp performances will be performed in class and in the gym at Exhibition.

6th Grade continued

Performance Times

7:10- 7:35: 6M in 6M
6B in 6B

7:35- 8:00: 6M in 6B
6B in 6M

8:00-8:30 Stomp performances in the gym

Questions to Ask the Students

- *Describe the Engineering Design Process.*
- *Describe two engineering problems that you faced and how you solved them.*
- *Why is the Great Marsh so important to humans?*
- *Why are there so many squirrels and so few hawks? What does this have to do with energy transfer between organisms in a food web?*
- *Who was John James Audubon?*

- *How did a conflict of ideas become a conflict of weapons?*
- *How is the "Declaration of Independence" a revolutionary document?*
- *Were the ideas of the Revolution, as the fictional version of James Otis in Johnny Tremain says, "a cause worth dying for"?*

- *Which holiday did you choose?*
- *How is this holiday celebrated in the U.S. versus in France or a Spanish-speaking country?*
- *What is your holiday artifact and why did you choose it?*

7th Grade

Global Theme: Conflict and Harmony

What is conflict?

Students will understand...

How to recognize different types of conflict

That conflict often leads to change

What is harmony?

Students will understand...

Where harmony exists in the world

How harmony can be achieved and sustained

What is my role in creating both conflict and harmony?

Students will understand...

How to resolve conflicts

7th Grade

Reformers

Based on class work and individual research, students identified a person who worked toward improving social conditions or who helped the lot of a disadvantaged group. Students examined the motivation behind the person's actions, what steps were taken to create change and the lasting implications of that person's work. These findings are presented in the form of a five-paragraph research paper. In a creative writing exercise, students composed a letter from the perspective of their character. The letter attempts to persuade an opposition group or leader to change his or her view.

Questions to Ask the Students

- *How did the Industrial Revolution and the growth of the nation contribute to social problems?*
- *What was your reformer's "cause" and how did he/she contribute to society?*
- *How can one person inspire change?*

7th Grade continued

Impression of a National Park

In Art, students learned about the art movements of the 19th century, with a focus on the Hudson River School and Impressionism. In Humanities, they learned about the creation of National Parks. They created an “Impressionistic” cut and torn paper collage of a landscape of their chosen National Park. Students wrote a corresponding essay to examine the growth of the National Parks System.

Questions to Ask the Students

- *How is the Hudson River School connected to the National Parks?*
- *What was the Salon des Refuses (Salon of the Rejected)?*
- *How did the Impressionist style get its name?*
- *What are some characteristics of the Impressionist style?*
- *How are the national parks an example of national growth and development?*

7th Grade continued

Foreign Language Unit: Sports and Hobbies

Students learned vocabulary pertaining to sports and hobbies, including likes and dislikes pertaining to these topics. They also learned the past tense in French and Spanish, as well as expressions of frequency. To show their understanding of these topics, students wrote essays about their favorite sports and hobbies, as well as an athlete who practices the same sport. Students included information about what they do in their spare time, how often they practice, name of teams, and so on. This same information was researched about an athlete of their choice. Finally, students displayed their writing along with photos that represent their own sports and hobbies and the person they researched.

Questions to Ask the Students

- *What are your favorite sports and hobbies?*
- *Who did you research?*
- *Which verbs in the past tense did you use in your essay?*
- *Which expressions of time/frequency did you use in your essay?*

7th Grade continued

“Going Green”: Sustainable Cities

Designing Future Cities: From the Industrial Revolution to 21st Century Sustainable Solutions

Building off their study of the impact the industrial revolution had on society. Students identified how this time period initiated the excessive production of pollution, waste, and overconsumption of natural resources. Through their science curriculum, students explored the forms of energy and how humans use it to carry out everyday activities. They identified the impacts of the human population’s dependency and overconsumption of energy and resources has on the environment. Through class discussions students identified simple and major changes that could be implemented to reduce our impact on the environment.

Students were assigned a specific city and role on a sustainable engineering team. Their roles were energy, food and water, transportation, or overconsumption and waste specialists. Students were required to research the problems in their city, brainstorm possible solutions, and develop a proposal for addressing these problems. Each specialist chose to present their proposal through a 3D working model, pamphlet, or infomercial.

Students arranged a song promoting sustainable energy and solutions. They wrote lyrics, choose their instrument and practiced with their band. All groups will perform their songs promoting sustainable energy tonight.

Performance Times

Sustainable energy songs ongoing from **7-8:15** in 7P

7th Grade continued

Questions to Ask the Students

- *How do cities negatively impact the environment?*
- *What can cities do to reduce their negative impacts on the environment?*
- *What sustainable practices and technology is being developed or used around the world?*
- *Explain your proposal and what led you to decide on this solution?*

March Madness Mathematics

“Probable Picks”: Applying Probability and Percents to Predict Game Outcomes

The March Madness Mathematics Project consisted of individual, partner, and class components in order to use data and statistics to predict the outcomes of the March Madness NCAA Men’s Basketball Championship. Students worked with their classmates to carry out research and compile data within a shared google spreadsheet. They worked with their partner to select and combine different statistics to calculate probabilities and percentages to predict the outcome of each game in the tournament. Students were required to use different statistics each round of the tournament to predict winners and to combine statistics to determine if combining statistics increased accuracy. Individually students were responsible for the calculations for their half of the bracket and writing reflection analysis pieces.

Questions to Ask the Students

- *How can multiple sources of data be used to calculate probabilities and odds in order to theoretically predict the outcomes of the March Madness Basketball Tournament?*
- *Can using probabilities derived from historical and team data impact the accuracy of predicting winners compared with random predictions?*
- *What data was most accurate in predicting winners of the 2015 March Madness Division 1 Tournament and what was least accurate?*

8th Grade

Global Theme: Character & Identity

Who am I and who am I becoming?

Students will understand...

How various influences affect their identity and character

How personal choices shape identity and character

How identity is expressed

What is character?

Students will understand...

How character is formed

How character is expressed

How character is judged

What is group identity?

Students will understand...

How group identity is created

How group membership affects point of view

How one maintains individual identity as a group

8th Grade

Humanities: Debating Current Events

Humanities: Listening in to the news for a mere thirty seconds is sure to reveal a current challenge facing our nation, or world. For term three Exhibition, students have researched a current issue and posed a question on a related topic currently being debated. From there, students have formulated a thesis statement indicating their personal stance on the topic and conducted research to support their argument. Student will be using technology to showcase their research, writing and will be persuading their audience to agree with their views about a current, controversial topic.

Foreign Language: Students learned about professions and careers in French or Spanish. They learned a variety of vocabulary words for different jobs, as well as two different versions of the future tense—near future and simple future. Students researched a French or Hispanic professional who holds or has held a job in line with each student's interests and researched him/her. They wrote an essay about this person's job and studies. Then, students wrote about their own future plans, including where they are going to high school, where they want to go to college, what they want to study and their ideal future job.

Questions to Ask the Students

- *What topic did you research and why?*
- *What events related to the topic have occurred lately?*
- *What is your debate question?*
- *What is your stance and what research have you found to backup your opinion?*
- *How would someone counter your argument?*

- *Who is the French or Hispanic professional you chose to research?*
- *What is/was this person's job?*
- *What are your future career goals?*
- *Which verbs in future tense did you use in French or Spanish?*

8th Grade continued

Art of the Sixties: Pop Art Portraits

Students were introduced to the works of famous Pop Artists and explored a variety of Pop Art styles. They used a photograph to create a stencil for a series of prints. These prints were assembled into a work in the style of Andy Warhol.

Questions to Ask the Students

- *What is Pop Art?*
- *What kind of subject matter did Pop Artists use?*

The Physics of Roller Coasters

Our final exhibition project in science allowed the students to use their knowledge of the principles of physics and the principles of engineering and design. The students worked in small groups to design and build roller coasters out of cardstock. They had to test, redesign and rebuild as they progressed through the construction. They were required to incorporate particular design elements such as funnels, stairs and loops. The goal was to build a roller coaster on which a marble could complete the entire course without any aid. This project required knowledge of Newton's Laws of Motion, centripetal force, kinetic and potential energy and speed. Another important component of this project was working in a group. Each group member had to participate fully in the design, creation and testing phases of the project. Collaboration between group members was an important goal of the project. Students needed to be valuable contributors and good listeners in order for the group to function smoothly during all phases of the project.

Students also researched concrete poetry and wrote a concrete poem relating to an amusement park.

8th Grade continued

Questions to Ask the Students

- *What was the biggest challenge you encountered when building your roller coaster?*
- *What is potential energy and where is it at its maximum and minimum on the roller coaster?*
- *What is kinetic energy and where is it at its maximum and minimum on the roller coaster?*
- *How did you calculate the speed of the marble?*
- *How did you calculate the speed of the elements that weren't straight ramps?*
- *Do different marbles behave differently during the run of the roller coaster? Why?*

Performance Times

6:30-7:15 8th Grade in Gym for Opening Ceremonies and Hooks for Humanities Project

7:20- 7:55 A Group in 8L, B Group in 8H

8:00-8:30 A Group in 8H, B Group in 8L

*Remember to congratulate the kids
and thank the teachers!*



A sincere 'Thank You'

to all of our Enrichment volunteers!

*By sharing your time and talent with the children
you have helped to enhance their learning and
increase their love of school.*

*If you have a skill or talent you'd like to share,
please contact Pam Haley
phaley@marbleheadcharter.com*

Thank You!



*Dedicate a community room chair
to someone you love, respect, or admire!
\$40*

*In Honor of
Your Child's Name
Class of 20xx*

Your name: _____

Phone #: _____

Number of chairs: _____

Text for chair plaque(s) _____

Help MCCPS Support: Boston MedFlight

MCCPS 5th graders have elected to raise awareness and funds for Boston MedFlight as part of their CSL goal.

Boston MedFlight is a nonprofit whose Vision is to develop a critical care transport system that values safety and quality of patient care and to provide the right vehicle to the right patient at the right time, and transport to the right facility.

The 5th graders are raffling off 2 tickets to see the Boston Red Sox at Fenway Park. Tickets (3 for \$5) are available for purchase in the community room during Exhibition.

The winner will be drawn Thursday morning.
Thank you for your support.

Board of Trustees

Mary P. McRae
Lena Robinson
Lori Sherf
Paul McCarthy
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Ken Schulman
Laura Jalbert
Patricia Hazelton
Nina Cullen-Hamzeh
Ellen Lodgen
Katie Hope
David Hausler

*To express your interest in board membership
or to send a message to the entire board,
(whether a compliment or a complaint), please use
board@marbleheadcharter.com.*

Friends and Flip-Flops



TOSS ON YOUR FLIP-FLOPS AND JOIN US FOR
A CASUAL EVENING TO BENEFIT *FMPS*
FRIENDS OF THE MARBLEHEAD PUBLIC SCHOOLS

SATURDAY, JUNE 20TH
5:30 - 8:00 P.M.
452 ATLANTIC AVENUE
The home of
NORA AND ALEXANDER FALK

FMPS is a volunteer run 501©3 charitable organization that provides privately backed funding in the arts, sciences and math for our students and professional development for our teachers. *FMPS*'s mission is to fund grants that enhance the quality of education in the Marblehead Public Schools.

GREAT FOOD



MUSIC



CASH BAR

School Merchandise

Baseball Caps (one size fits all)	\$10
Polo Shirts (Adults sizes S/M/L/XL. Assorted colors)	\$15
Hooded Sweatshirts / Sweatpants (Adults sizes S/M/L/XL. Assorted colors)	\$25
MCCPS Coffee Mugs	\$7 each
	4/\$25
Notecards	\$12
Decals	\$2
<i>Please speak to Pam Haley for details</i>	

It's been said that coming to Exhibition is like trying to do Disney Land in a day. There's so much to see and experience!

So, if you don't get to see everything tonight, please come back tomorrow from 8:45-noon for Exhibition part 2. We'll do it all again for the children, and you're welcome to join us.

Please remember that there is an optional late start tomorrow. Students may arrive at the regular time (7:45) or up to one hour late (by 8:45).



If you believe, like we do, that public education should be innovative and engaging, that all children should be challenged and held to high expectations, and that they should be happy in the process, please make a tax-deductible donation to the MCCPS Foundation.

Thank you!



MCCPS Mission

MCCPS fosters a community that empowers children to become capable, self-determining, fully engaged individuals who are critical and creative thinkers committed to achieving their highest intellectual, artistic, social, emotional, and physical potential.

We are dedicated to involving, learning from, participating in, and serving our school community and the community at large.

Upcoming Events

- June 19 8th Grade Graduation
- June 20 Friends of Marblehead Public Schools' Annual Summer Soiree
- June 23 Special Board Meeting (7pm)
- July 6- July 24 MCCPS Summer School
- July 7- July 30 MCCPS Sports & Fitness Camp
- August 31 First Day of School

Please see the website for details

MCCPS Summer School

July 6- July 24 9am-noon

Please contact Carol McEnaney at cmcenaney@marbleheadcharter.com for further details.



Summer 2015 MCCPS Sports & Fitness Camp

Tuesday-Thursday 9-3pm

From July 7- July 30

Boys & Girls Grades 3-8
All Skill Levels are Welcome

Fee: \$90/week (\$5/hour avg.)
Rain or Shine

Registration Deadline: Friday, June 19

Please direct any questions and forms/payments to
MattYoung: myoung@marbleheadcharter.com

