Diplomas Count
Finding Great Local Partnerships to Build School Community
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Diplomas Count: Finding Great Local Partnerships to Build School Community

Expert Presenters:

Forest Clayton
10th grade biology teacher
MC2 STEM High School, Cleveland, Ohio

Feowyn MacKinnon
Principal
MC2 STEM High School, Cleveland, Ohio

Related Article:
Cleveland School Makes City Its Classroom

Related Report: Diplomas Count 2016: Report and Graduation Rates
An on-demand archive of this webinar will be available at www.edweek.org/go/webinar in less than 24 hrs.
MC² STEM High School
Demographics

Enrollment Criteria
- Enrollment based on lottery
- All students eligible
- Students from Cleveland and surrounding suburbs are accepted
- No entrance criteria

Socio-Economic Status
Free and Reduced Lunch 100%

Enrollment by Grade Level

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>9th Grade</td>
<td>123</td>
</tr>
<tr>
<td>10th Grade</td>
<td>100</td>
</tr>
<tr>
<td>11th Grade</td>
<td>94</td>
</tr>
<tr>
<td>12th Grade</td>
<td>86</td>
</tr>
</tbody>
</table>

Enrollment by Subgroup

<table>
<thead>
<tr>
<th>Subgroup</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>177</td>
</tr>
<tr>
<td>Male</td>
<td>229</td>
</tr>
<tr>
<td>African-American</td>
<td>320</td>
</tr>
<tr>
<td>American Indian</td>
<td>2</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>7</td>
</tr>
<tr>
<td>Hispanic</td>
<td>11</td>
</tr>
<tr>
<td>White</td>
<td>58</td>
</tr>
<tr>
<td>Multiracial</td>
<td>7</td>
</tr>
<tr>
<td>IEP</td>
<td>43</td>
</tr>
<tr>
<td>LEP</td>
<td>6</td>
</tr>
</tbody>
</table>
MC² STEM High School
Lowering the Achievement Gap
MC² STEM High School
Lowering the Achievement Gap

High School Graduation
Average high school graduation rates

CMSD  63%
OHIO  84%
MC² STEM  95%

Notes:
- CMSD = Cleveland Metropolitan School District
- MC² STEM = MC² STEM High School

Sources:
Ohio Department of Education; MC² STEM High School 2012 graduation rate generated by MC² STEM.

Edutopia.org
MC² STEM High School
Achievement Breakdown

Class of 2012
• 95% graduation rate
• Over 6 million dollars of scholarship money offered to the graduates
• 100% of graduates accepted to college (87% went to college)

Class of 2013
• 93% graduation rate
• Almost 4 million dollars of scholarship money offered to graduates
• 93% of graduates accepted to college (81% went to college)

Class of 2014
• 93% Graduation Rate
• Almost 4 million dollars of scholarship money
• 100% college acceptance (90% went to college)
MC² STEM High School
Lowering the Achievement Gap

Disadvantaged Student Performance: This measures the proficiency on state exams among typically underperforming subgroups. The calculations by U.S. News were the second of two steps in determining which schools received at least a bronze medal.

- Percentage of Disadvantaged Students Who Are Proficient 94.6
- Percentage of Non-Disadvantaged Students Who Are Proficient 96.2
- Gap Between Disadvantaged and Non-Disadvantaged Students -1.6
- Gap Between School and State Among Disadvantaged Students 10.5
MC$^2$ STEM High School
Lowering the Achievement Gap

Both of these programs look at proficiency in reading and math for all student groups in a school. The Schools of Promise initiative considers the most recent year’s reading and math performance, while the Schools of Honor program considers the five most recent years of reading and math performance. For more on selection criteria visit education.ohio.gov.

We all know that student poverty is strongly linked to low student achievement and that schools with a high number of economically disadvantaged pupils have special challenges. Yet MC$^2$ STEM High School is closing the achievement gaps among all students.

This kind of achievement takes bold leadership and the commitment of teachers, students and their families. I commend you for that leadership. Also please pass along my thanks to others who contributed to your school’s success. Together you are building a wonderful legacy for your community.

I urge you to share the lessons you’ve learned with other Ohio schools. By learning from each other, all of our schools can better prepare Ohio’s girls and boys—from every background—for college, other postsecondary training, jobs and life.

~ Ohio Department of Education Letter of Notification
MC² STEM High School
Embedded in STEM industry

WE NEED MORE SCHOOLS LIKE:
MC² STEM HIGH SCHOOL
CLEVELAND, OH

+ WORKSHOPS WITH TUTORS FROM NASA
+ MENTORING WITH ENGINEERS FROM GE LIGHTING
+ DEMANDING INTERNSHIPS WITH LOCAL BUSINESSES

#InvestInSTEM
MC² STEM High School
Innovate – Enrich - Engage

- Lottery Based Enrollment
- Mastery Learning
- Trans-disciplinary Project Based Capstones
- Embedded in STEM Industry
- Year Round School
- Flexible Credit
- Individualized Instruction
- **Whatever it takes**
# MC² STEM High School

Embedded in STEM industry

<table>
<thead>
<tr>
<th>Grade 9</th>
<th>Grade 10</th>
<th>Grades 11 &amp; 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Downtown Cleveland</td>
<td>General Electric (GE) Lighting Headquarters</td>
<td>Community / Business Internships</td>
</tr>
<tr>
<td>Exposure to exhibits</td>
<td>Tutoring</td>
<td>College Level Classes</td>
</tr>
<tr>
<td>Partnerships</td>
<td>Mentorships</td>
<td>Real world experiences</td>
</tr>
<tr>
<td>NASA Glenn Research Center</td>
<td>Sophomore Engineering &amp; Design Project</td>
<td>FABLAB</td>
</tr>
<tr>
<td>FABLAB</td>
<td>First Industrial park started by Thomas Edison</td>
<td>Keys to Success Program</td>
</tr>
<tr>
<td>Situated on Lake Erie</td>
<td>FABLAB</td>
<td>Minds Matter</td>
</tr>
<tr>
<td>Community programs access</td>
<td>Career and Internship experience</td>
<td>Tri-C Certification</td>
</tr>
<tr>
<td>Career and Internship experience</td>
<td></td>
<td>Career and College</td>
</tr>
</tbody>
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- Keys to Success Program
- Minds Matter
- Tri-C Certification
- Career and College

- Community / Business Internships
- College Level Classes
- Real world experiences
- FABLAB

- General Electric (GE) Lighting Headquarters
- Tutoring
- Mentorships
- Sophomore Engineering & Design Project
- First Industrial park started by Thomas Edison
- FABLAB
- Career and Internship experience
MC² STEM High School
Awards and Recognition

- Selected for 2015 Cohort of the Schools that Can Network
- Alliance for Excellent Education announced that Cleveland's MC² STEM High School was one of three recipients of its Excellence and Innovation in Secondary Schools award
- Featured during the organization’s Digital Learning Day Live event
- Featured profile in *Tech & Learning* Magazine
- Featured profile in *Education Week* Magazine
- Named “One of America’s Best Urban High Schools by The National Center for Urban School Transformation
- Identified by the George Lucas Foundation (Edutopia) as a “School that Works”
- Recognized by the White House as an exemplar “STEM Innovation Network” (White House Office of Science and Technology Policy April 10, 2013 www.whitehouse.gov/ostp)
- Recognized by the State of Ohio in “It Can Be Done: a study on what makes schools succeed in Ohio”
- Recognized by the State of Ohio in “Failure is not an Option”
- 2013 High Performing Schools of Honor & 2012 and 2013 School of Promise
- School community has participated in the Clinton Global Initiative
- Featured in many publications, including Deeper Learning: How Eight Innovative Public Schools Are Transforming Education in the Twenty-First Century
MC\textsuperscript{2} STEM High School
Spread and Wrap around

- **Local Replication**: Components of the school have been replicated in Ohio by Cleveland Metropolitan School District in five K-8 schools within the district and 3 new high schools, and 4 schools that will be developed next year
  - MC2 STEM High School Students travel with a Mobile Fab Lab to other CMSD schools
  - Serves as a recruitment tool and an opportunity to recreate this experience to students who do not attend MC2 STEM

- **Statewide Replication**: Components of our school have been sought out and replicated by Parma City Schools, Lake County School District, Rootstown Local Schools, Geauga Schools

- **National Replication**: Visitors from Maryland, Georgia, North Carolina, Illinois, California, Washington D.C, and New York have sought out training and information for the purposes of incorporation into their school districts.

- **International Replication**: Components of school model have been utilized in development of schools in Egypt. MC2 STEM has recently hosted representatives from schools in Ukraine, Georgia, Belarus, and Jordan.
MC² STEM High School

Questions

Feowyn MacKinnon

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Required Reading from *Education Week*:

**Spotlight on Elements of a Successful District**
In this Spotlight, read how leaders are fostering innovation, how teachers and students are shaping district policy, and how districts are adopting cutting-edge R&D models.