PITTSBURGH PUBLIC SCHOOLS TRANSFORMS AP® CULTURE AND BOOSTS QUALIFYING SCORES

Photo Credit: Pittsburgh Public Schools

PPS EMBRACES THE POWER OF PREPARATION

"Expect great things" is the key message of Pittsburgh Public Schools' strategic mission, and that's exactly what the PPS administrators and educators are doing as they strive to transform the district into a student-centered culture built on continuous improvement. Pittsburgh Public Schools partnered with the National Math and Science Initiative to implement the College Readiness Program from 2013 to 2018 to help with this transformation.

Unlike many initiatives or training opportunities that focus on one aspect of college preparation or delivering equitable education to students, NMSI's College Readiness Program provides a fully built-out sustainable system with elements that work together for collective success, according to Kashif Henderson, the K-12 gifted and talented coordinator at PPS. Three core aspects of CRP support the district's mission:

Culture
Success Mindset

Students
Progressive Preparedness

Educators
Professional Development

A CULTURE OF CONFIDENCE

Mr. Henderson feels that one of the biggest challenges with increasing enrollment in AP® and STEM classes is the fact that many students feel like they don't belong there. This is especially true among underrepresented populations.

Mr. Henderson recalls a bright student who had been afraid of taking AP classes. After repeatedly urging the student to believe in himself, the young man finally enrolled in several Advanced Placement.® courses. A few years later, the former student shared that AP Physics ended up being one of his favorite high school classes.

A culture of confidence doesn't emerge overnight – instead it grows one student at a time, fueled by the encouragement and guidance of teachers.

"As we provide more awareness of what AP actually is and remove the stigma of fear, we've seen more students enroll in AP courses and continue throughout the entire year without dropping the class," Mr. Henderson says. "With our diverse offering of STEM classes, our district is able to provide more students with access to opportunities that position them for future success."
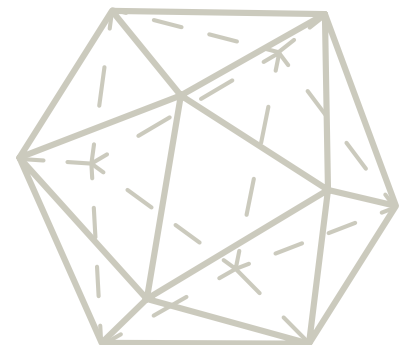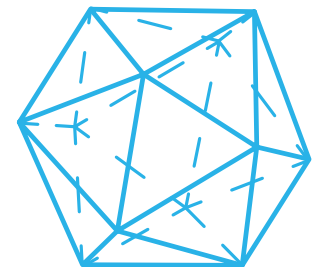
PPS recently added Computer Science Principles to two of its high schools that are predominantly African-American, further expanding technology offerings. However, enrollment in AP and STEM courses is just the first step for students who are growing up in communities that haven't had cultural expectations of attending college. The next step is to help students move from participation to success. The College Readiness Program powerfully addresses this by equipping teachers with the resources, relationships and confidence needed to drive toward this goal.

> **"CRP aligns to a bigger picture than just leading up to an AP exam. This program is really built out and provides a sustainable culture that prepares students to participate in rigorous courses."**

Kashif Henderson
K-12 Gifted and Talented Coordinator, Pittsburgh Public Schools

NATIONAL MATH + SCIENCE INITIATIVE

SUPERIOR SUPPORT FOR EDUCATORS

Mr. Henderson compares educator training to preparing for an athletic event. While many people only see professionals at the top of their game skillfully performing in front of crowds. The reality is that it takes a lot of practice to get ready for the big day, and NMSI is helping PPS teachers hone their skills.

"The number of teachers participating in professional development has increased significantly," Mr. Henderson says. "The quality of NMSI's PD and resources is next-level, providing our educators with tools that help them grow professionally and equip their students for success."

Most teachers want to help their students reach their potential, but many are hampered because they lack the resources needed to provide specific guidance for AP success. College readiness and qualifying AP scores aren't just about the numbers, they're about the preparation process and developing good lifelong learning habits. NMSI provides teachers and students with resources and the framework for effective preparation:

Training for teachers to prep students for the AP exam

Mock exam provided for teachers and students

Detailed understanding of what to expect from the College Board®

Insight into the nuances of AP exams

Student engagement, including Saturday sessions

These resources help students feel prepared academically for AP exams, as well as reducing anxiety surrounding the test and help teachers become trusted leaders in their school and across the district.

WHAT MAKES NMSI'S PROFESSIONAL DEVELOPMENT SO SPECIAL?

PPS has participated in NMSI's Professional Development since 2013 – and continues to do so. According to Kashif Henderson, these are some of the top reasons why it continues to be a valuable resource:

1 The teachers are actually engaged with the material

2 The modeling of professional resources with demonstrations

3 PD leaders are current educators who are still in the classroom and understand the student experience

4 The teachers are not just being talked at or hit with theory

5 Going through the learning themselves and experiencing the reflection of these activities

6 Facilitators are in touch with current happenings with AP exams and the College Board

COMPREHENSIVE STUDENT READINESS

Although some people might be surprised to see more than 100 students gathered on a Saturday to improve their study skills, it's become a common occurrence at several high schools in Pittsburgh Public Schools.

Dubbed the Saturday sessions, NMSI and PPS don't consider these meetings to be a shortcut to exam success. Instead, there's much more at stake in these gatherings. Mr. Henderson explains that it's important to leverage this time and relationships with coaches to make the Saturday sessions meaningful to the students.

In addition to unleashing the students' exam prep capabilities, the Saturday sessions also help students gain access to resources in the community at large, which is a powerful skill regardless of students' post-secondary plans. Mr. Henderson says local university partners participate in Saturday sessions to support students and prepare them for the next academic stage – students are engaged in the process by asking what topics they'd like to address.

While the Saturday sessions continue to evolve and shift to the current needs of students, one thing is certain – this is a powerful method for supporting students on a long-term basis.

Math Science English qualifying scores for all students

78%
Baseline to year 3 percent increase

283
Raw number of increase
(from 361 to 644)

Math Science English qualifying scores for female students

125%
Baseline to year 3 percent increase

94
Raw number of increase
(from 75 to 169)

THE NMSI EFFECT

"Our relationship with NMSI has been overwhelmingly positive and very beneficial for the development of a strong AP program and expansion of STEM offerings," Mr. Henderson says.

When you have a program that benefits teachers, staff and students, it ultimately has a powerful impact on the community at large. And that's what education is all about.
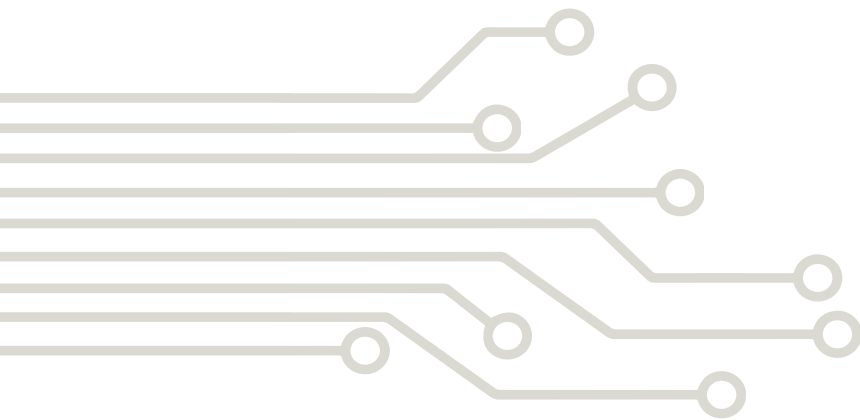
FEMALE DIVERSITY FOR THE WIN

Pittsburgh Science and Technology Academy (SciTech) has earned the College Board AP Computer Science Female Diversity Award for achieving high female representation in AP Computer Science A.

To earn this honor, at least 50% of students in one of two AP Computer Science courses must identify as female or the percentage of female students who sit for AP exams in Computer Science must at least the same percentage of the school's female population during the 2019-20 school year.

"Our female students have continued to stand out as leaders within our computer science program, and their passion for learning and commitment to innovative thinking will ensure their future success in the STEM fields," says SciTech Principal Dr. Shawn McNeil. "This award is a badge of honor and a testament to the hard work our female students commit to every day." Also worth noting, four high schools in PPS now have computer programs led by women.

Ready to bring NMSI to your schools?

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