

Pompton Lakes Public Schools

Instructional Technology



April 2, 2019
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Overview:

Instructional Technology Coaches help their schools become future ready by designing and modeling innovative, learner-driven experiences that meet teachers where they are and support their professional growth. The Tech Coach develops and conducts professional development sessions on infusing technology into the academic curriculum; provides recommendations regarding software purchases, works collaboratively with building administrators, and provides input on ways to increase teachers' use of technology as it positively impacts student performance in the classroom. The Tech Coach focuses on refining instruction through personalized and differentiated professional development. This year, the Instructional Technology Coaches act as each building's Future Ready Schools team leader, in which they promote 21st century skills and innovative practices that support student centered learning.

The Instructional Technology Coaches have focused on continuing to support the implementation of the District Goals for Instructional Technology that were established last year. In addition, the Instructional Technology Coaches created and implemented a summer professional development series to provide teachers with additional opportunities to continue their learning. There also has been a strong focus on computer science within our school buildings. Each building has taken various steps to strengthen their computer science, including receiving a Computer Science grant from the NJDOE for PLHS.

Ms. Aagaard – District Coordinator for Instructional Technology
and Lincoln School Instructional Technology Coach

Mrs. Jassin – Lenox School Instructional Technology Coach








Mrs. Gaddis – Lakeside Middle School Instructional Technology Coach

Mrs. Hennessy – Pompton Lakes High School Instructional Technology Coach

Future Ready Schools Initiative

Pompton Lakes Public Schools has committed to supporting the Future Ready School: New Jersey initiative and promoting the development of individual school Future Ready teams that infuse Digital Learning across multiple disciplines including: math, technology education, media, arts, science, language arts, and Career and Technical Education. Each building's team will work collaboratively to establish a culture of digital innovation, where educators are empowered to deepen and extend student learning through the use of technology, digital content, and media. The Instructional Technology Coaches and their teams drive innovation within their building in areas such as curriculum and instruction, redesigning learning spaces, incorporation of more computer science, digital citizenship, and the school's virtual identity.

Future Ready Schools New Jersey Frameworks

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|  CURRICULUM, INSTRUCTION, AND ASSESSMENT Strengthen Personalized Instructional Strategies <ul style="list-style-type: none"> → Virtual Reality → Digital Assessments → Authentic Learning experiences → Computer Science → Digital textbooks, iReady, MobyMax → STEAM challenges |  PERSONALIZED PROFESSIONAL LEARNING Cultivate a Culture of Continuous Learning <ul style="list-style-type: none"> → Teaching with Tech Summer Workshops → Tech Day → Tech Tips → Twitter → 1:1, small group on demand PD |
|  USE OF SPACE AND TIME Promote the Innovative Use of Time and Space for Personalized Learning <ul style="list-style-type: none"> → Flexible Seating → Makerspaces → Schedules → Anytime, Anywhere Learning |  BUDGET AND RESOURCES Identify and Advocate for Strategic Budget Allocations <ul style="list-style-type: none"> → Grades 2 - 12 are now 1:1 → Work to continue to provide K-1 with more devices → PLEF grants and PTA donations |
|  DATA AND PRIVACY Lead the Use of Data to Inform Personalized Learning <ul style="list-style-type: none"> → Digital Citizenship → Data driven instructional strategies → Policies and Procedures |  ROBUST INFRASTRUCTURE Advocate for Equitable Digital Access for All Students <ul style="list-style-type: none"> → Students in grades 6-12 have continuous access to devices → WiFi is available in all buildings |
|  COMMUNITY PARTNERSHIPS Encourage Community Connections and Collaboration. <ul style="list-style-type: none"> → PLHS and elementary schools → L.E.A.D → PLEF → Parent Volunteers and Experts | |

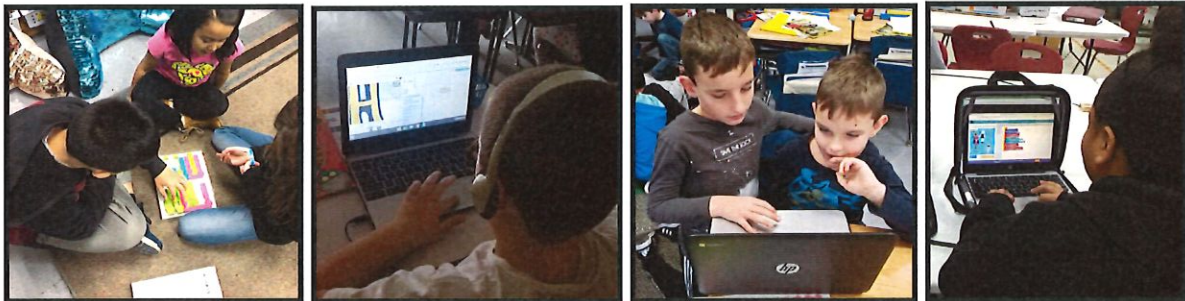
Emphasis on Computer Science

Computer science education helps to ensure that students are college and career ready, and through understanding the principles of computer science, prepares them to function as citizens of the 21st century. The Instructional Technology Coaches, along with the Director of Curriculum, worked together to apply for the AP Computer Science Grant. Pompton Lakes was one of twenty-nine districts in New Jersey to receive the grant. Through the grant program, PLHS will be able to offer a Computer Science Summer Enrichment Program for students entering 9th-12th grade. Next school year, PLHS will offer a "Girls Who Code" club in order to promote the field of computer science to females to help close the gender gap in the field.

Lakeside Middle School has intensified its computer science curriculum by adding more JavaScript and Python instruction. Students in Lakeside have been exposed to a variety of programming languages in order to prepare them for the courses offered at PLHS.

Lenox and Lincoln Elementary Schools are adjusting their curriculum to incorporate more computer science principles. Students in grades kindergarten through fifth grade will be exposed to computer science education in order to build a strong computational and critical thinking knowledge base.

All four buildings this year participated in Hour of Code activities to promote computer science education. Older students worked with younger students to complete various coding activities. All buildings also provide its students with exposure to robotics and applying programming skills to make robots complete various tasks.



Virtual Reality

Thanks to a donation from the PLEF and Investors Bank, Pompton Lakes Public Schools was able to purchase four Virtual Reality kits. Each building houses 10 Virtual Reality devices and goggles to use with students. Students from prekindergarten through twelfth grade have used Virtual Reality to have hands-on experience with the content they were learning in class.

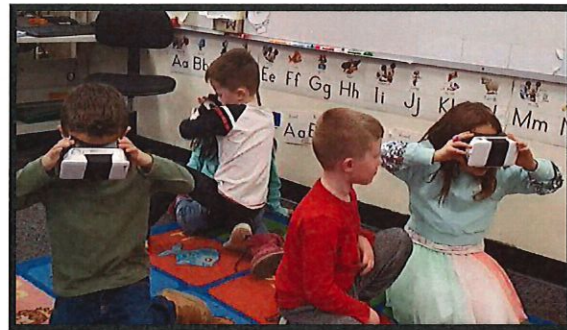
San Diego Zoo

World War I trenches

Ancient Rome

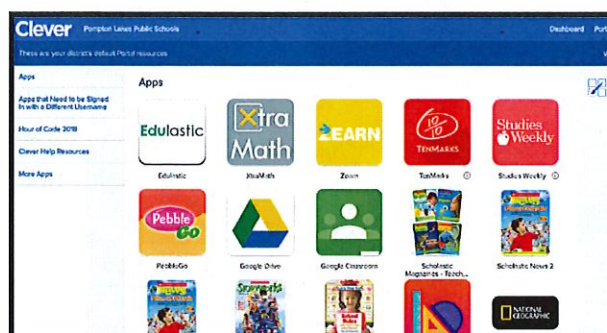
Ecosystems Around the World Coral Reef

Using Natural Resources



Clever Implementation

Lincoln and Lenox Schools implemented the use of the Clever portal. Clever is a single platform for all of your digital learning programs. Clever's single sign-on (SSO) solution increases instructional time by getting students and teachers into all of their digital software and resources with one username and password. Not only is it easy to access thousands of apps, files, and resources, but each user sees a completely customized experience based on information from the school's data. Classes or grades can have access to unique applications just for them, making it easier to personalize each student's learning experience. Kindergarten and first grade students sign in the Clever portal via a badge to make the process of logging in even simpler.



Digital Branding and Virtual Identity

Branding is defined as the marketing practice of creating a name, symbol, or design that identifies and differentiates a product from other products. It is critical that PLPS develops a brand that represents its visionary thinking and 21st Century learning. By creating the hashtag #PomptonPride, the district is able to identify the goals, activities, celebrations and accomplishments that can be shared with all community stakeholders. All schools utilize social media to connect with the local and global community. The Technology Committee collaborated to create a new district tagline that represented the district's values and goals. A high school student, Matt DeRitter, was selected to design the new social media logo for the district.



Personalized Learning via Digital Resources

PLPS continues to expand personalized learning experiences through several digital programs. Lincoln and Lenox School are currently piloting two adaptive learning programs, iReady and MobyMax. These programs begin with a diagnostic assessment in both language arts and math. Data from the diagnostic assessments are analyzed and used to provide remediation and enrichment. The programs are adaptive and assign specific lessons to each student based on their individual strengths and weaknesses. Students are able to work at their own pace in order to strengthen their skills.

STEAM Integration

STEAM is an educational approach to learning that uses Science, Technology, Engineering, the Arts and Mathematics as access points for guiding student inquiry, dialogue, and critical thinking. The end results are students who take thoughtful risks, engage in experiential learning, persist in problem-solving, embrace collaboration, and work through the creative process. These are the innovators, educators, leaders, and learners of the 21st century! Elementary teachers received professional development in STEAM integration during our Tech Day this year and have been incorporating STEAM into all content areas.



Lincoln students participated in a schoolwide STEAM challenge for Toys for Tots. Students were challenged to create a train car that has wheels and that could hold donated toys.



All buildings have used BreakoutEDU kits to promote critical thinking and inquiry. Similar to an escape room, students must “break into” the box by solving clues that are tied to what students are learning in class.

Elementary students have begun exploring with two types of robots, called Spheros and Ozobots. The robots are programmed with either color coding or block coding. This spring, students will complete STEAM challenges utilizing the robots.



Middle School students also have been completing several STEAM challenges. One class has its own garden, in which they grow their own vegetables and herbs. Students also participated in a challenge to build a structure that would hold the most weight.

All buildings have worked to include digital media and video creation within their curriculum. Students are completing video projects with green screens and using WeVideo to edit their videos. Students have also been creating their own websites to share their learning with a

larger audience. Students have been extremely engaged in being able to create videos as an option for formative and summative assessments.

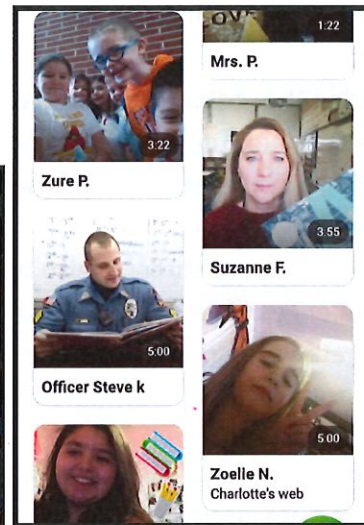
Connecting Locally and Globally

The Instructional Technology Coaches are working closely with building principals to communicate and connect with the Pompton Lakes community and the larger global community.

All school buildings utilize social media to share and celebrate the successes within each building. The tech coaches will be surveying parents as to their communication preferences as an effort to connect with the majority of parents and community members. The district started a digital campaign using #PomptonPride as a way to connect parents, students, teachers, and community members to what is going on within the district.

The tech coaches facilitate several opportunities for students to connect with experts in the field through platforms like Skype and Flipgrid.

For World Read Aloud Day, a community Flipgrid was established and shared among the district and greater community to share a story via video. Hundreds of students participated from all four buildings, as well as principals, administrators, teachers, and even Pompton Lakes Police Department. Local author, Wil Mara, visited both elementary schools to celebrate the love of reading and becoming an author. Students also skyped with several different children's book authors throughout the day.



Students also have had the opportunity to connect with a scientist studying the Adelie penguins in Antarctica. Students were able to discuss her studies and ask questions.

This spring, students from PLHS, Lakeside, and both elementary schools will collaborate in several different projects together. The opportunity for our students to collaborate with one another engages and motivates students of all ages.

Summer Professional Development

The Instructional Technology Coaches organized summer professional development workshops in July and August for all district staff. Twenty different sessions were offered for teachers. Instructional Tech Coaches and district staff presented on various topics, including: Virtual Reality, Twitter, Skype, Google Classroom, Formative Assessments, Seesaw, EdPuzzle, and much more. There was a great turnout! We will be offering summer professional development again this summer. This year we plan to offer professional development to prepare teachers to become Google Certified Educators.

Future Goals

The Instructional Technology Coaches will continue to effectively integrate Digital Learning programs and tools in collaboration with the staff of Pompton Lakes Public Schools. The 2019-2020 academic year will maintain the 1:1 initiative for grades 2-12. The district will continue to make more devices available to our primary grades. Classroom teachers will work with the coaches to offer more authentic learning experiences for students in all grade levels. Through our Future Ready Schools teams, buildings will continue to redefine and repurpose learning spaces to best meet the needs of our students. Furthermore, the district will continue to use social media to connect, collaborate, and share information and insights into the learning occurring in Pompton Lakes Public Schools.

Conclusion

At the forefront of our ongoing success is the support of the Superintendent, Board of Education, administration, teachers, and support staff. All schools are proud of the collaborative effort of students, teachers, and parents to create student-driven and innovative classrooms that focus on skills such as collaboration, communication, critical thinking, and creativity.

