



Princeton Public Schools Board of Education
 November 21, 2023

Presented by
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Recognitions

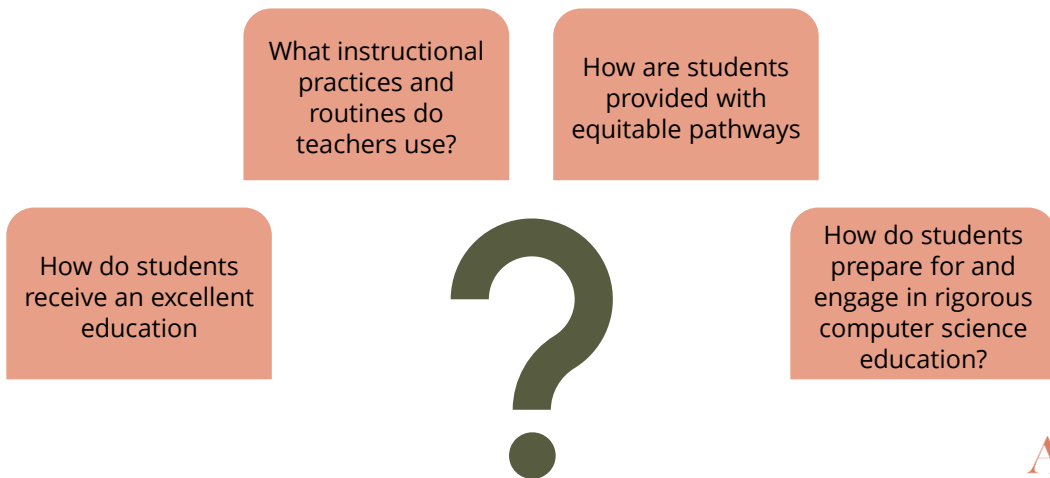
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Purpose

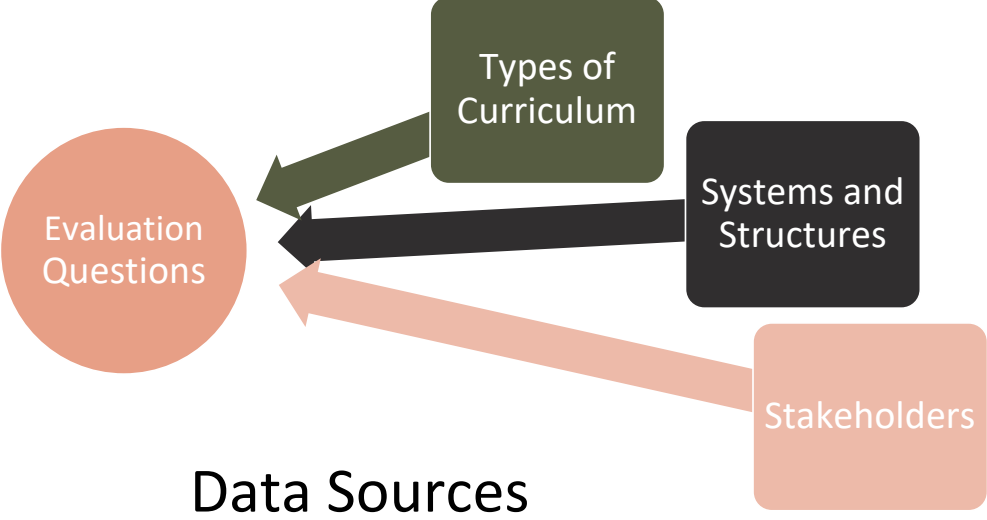
Assess the extent to which the Princeton Public School Mathematics Program provides an excellent mathematics education that encourages each student to achieve at a high level



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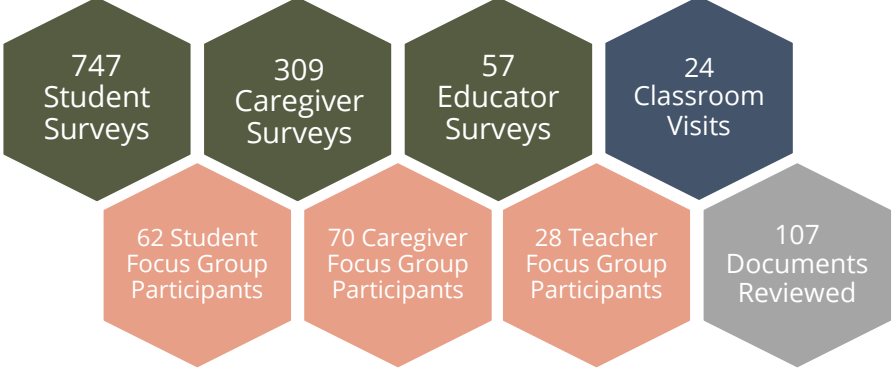


Data Sources

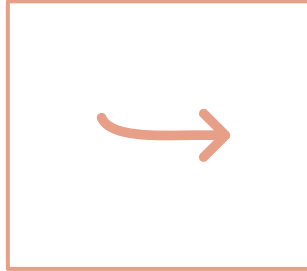


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Data Collected



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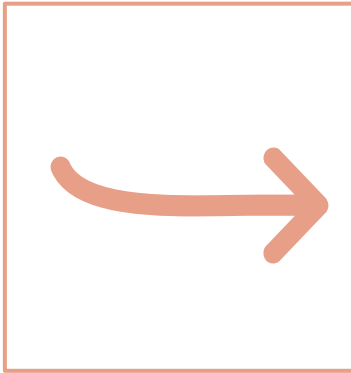
Program Strengths

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- Dedicated educators, caregivers, Board of Education, community
- Strong written curriculum for secondary mathematics
- Some classrooms with effective teaching and learning practices
- Opportunities to take advanced classes
- Some support structures
- High level of student interest in computer science

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Program Needs

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Needs

Excellent
Education

- Refine curriculum to meet the unique needs of the Princeton Mathematics Program
- Align the assessment, grading and reporting and the course placement systems to the curricula
- Engage educators in using curriculum routinely to guide instruction

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Needs

Effective Teaching and Learning

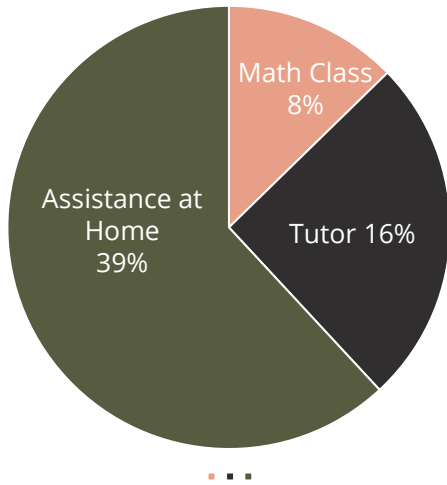
- Use effective, research-based teaching and learning practices across classrooms
- Enhance differentiated instructional practices to meet diverse student learning needs



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Support Outside School

63% of caregivers report that their children receive support in mathematics outside of the school day



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*There are kids who are going to a tutor or outside math teacher/class/etc. because they really *enjoy* math! And they want more math than the school is providing or at a level of challenge that the school is not providing.*

Because the Princeton curriculum is taught at a high level, starting in 6th grade with Pre-Algebra, it forces parents to seek outside help tutoring in elementary school to make sure that they are prepared for the 6th-grade math curriculum



Most families don't have the resources to pay for outside programming. What happens to them? My children had outside math tutors all the way through PHS because the schedule was so difficult to get the help they needed from their teachers. It's not enough time to just learn in the classroom, someone needs to help them go over the content.



 Needs

Equity and Access

- Increase enrollment of Black and Hispanic students, those eligible for free/reduced lunch, students who received special education services, and multilingual learners in advanced courses
- Cultivate an environment where all students experience high academic expectations
- Strengthen support structures to adequately address the needs of all learners



High-Expectations

“Last year at PHS, I was learning something I already knew (adding, subtracting, etc.). I was not happy because I knew it already. The change is unbelievable because it’s algebra now, and I am very happy.”

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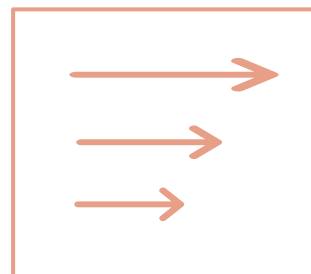
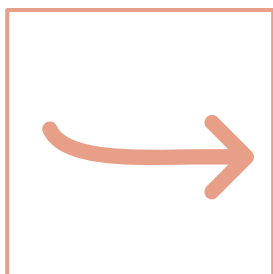


Needs

Computer Science

- A limited number of staff
- Outdated infrastructure
- Disparity between the demographics of computer science classes and the overall school population
- No integration of computer science standards at the elementary level
- Limited access to computer science courses at the middle school

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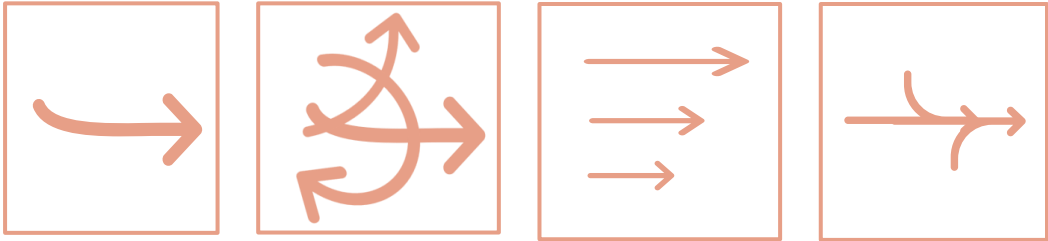
Recommendations

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- Adjust curricula
- Provide explicit instruction in algebraic foundations at the elementary school
- Make changes in course structure in the middle school
- Differentiate instruction
- Strengthen supports
- Develop strong student mathematical identity and agency
- Provide more opportunities for computer science

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Next Steps

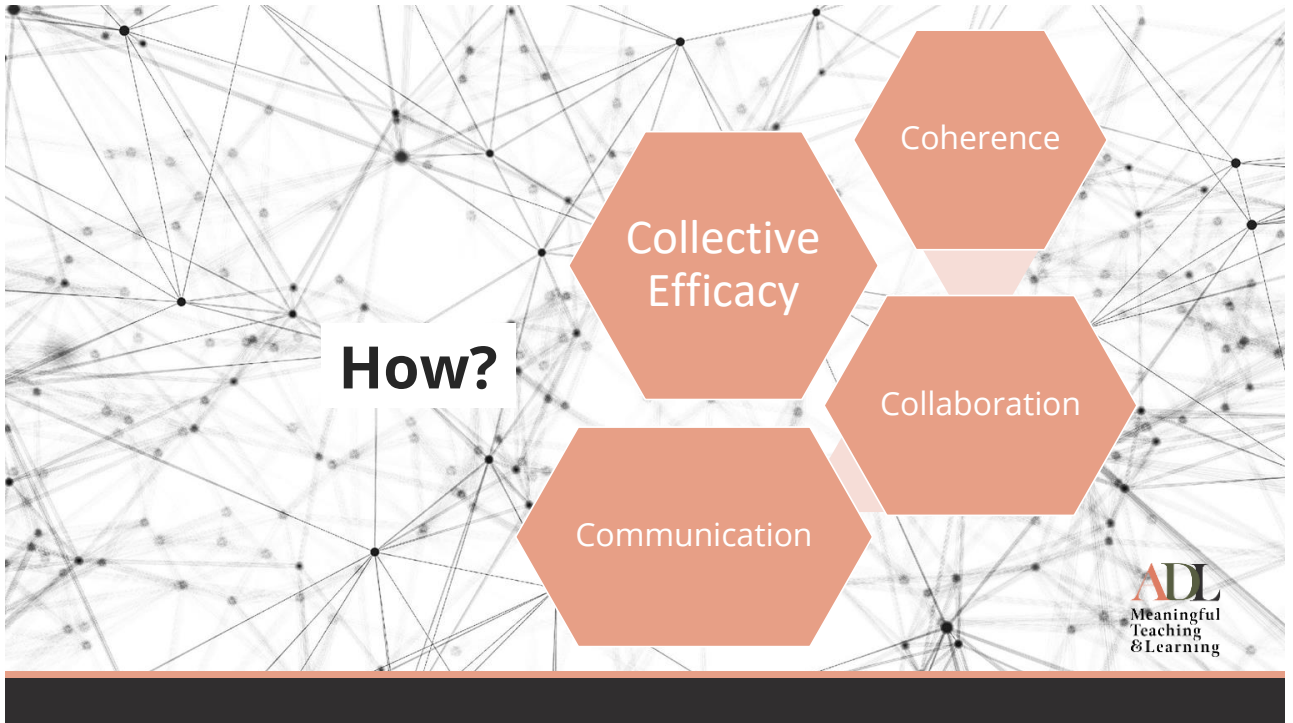
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Why?

Princeton Public School
Mathematics Program provides an
excellent mathematics education
that encourages each student to
achieve at a high level

Background image of white mathematical symbols like pi, infinity, and plus signs.

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Collective Efficacy

Collective efficacy is the shared belief or perception among a group of individuals that they can collectively achieve desired goals, overcome challenges, and make a positive impact through their combined efforts.

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Coherence: Mission and Vision

It is the responsibility of all stakeholders to understand the direction and long-term objectives of the mathematics program and work towards achieving its goals.



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Collaborate

- Leverage teacher expertise
- Provide opportunities for planning and discussion across grade levels and for teachers of the same course
- Ensure participation from special education teachers, educators of multilingual learners, and other specialized support staff

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& Learning

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Communication



Communication must be improved to build trust and confidence that the mathematics program will meet the needs of all students.

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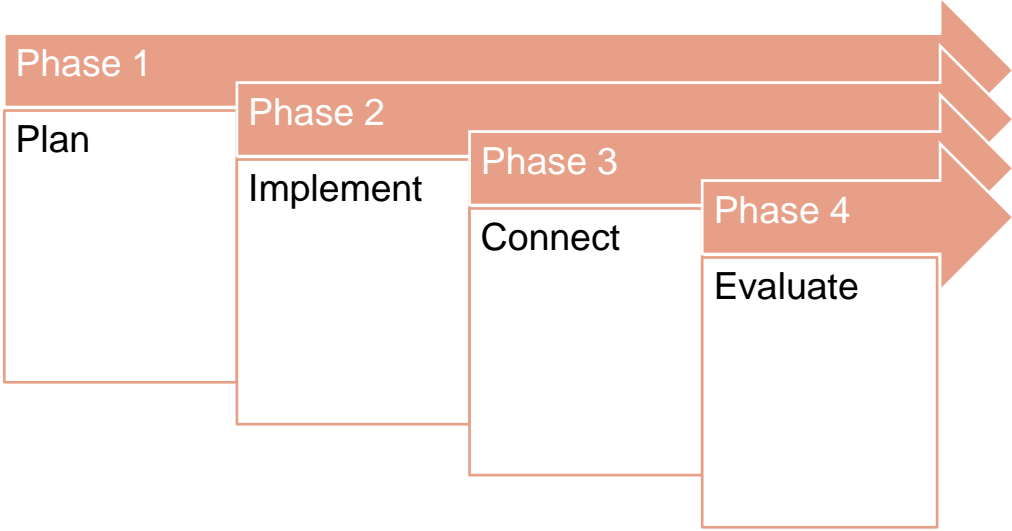


Systemic adjustments are needed to achieve the goal of Princeton Public Schools. These adjustments require an understanding by all stakeholders and the realization that it will take time.

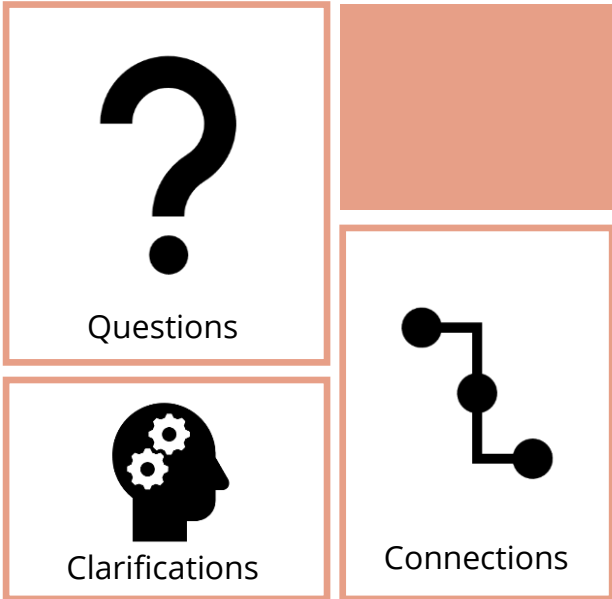
“(Feedback will) generate positive momentum in building trust of self, trust of colleagues, and trust of the system, as well as trust of our students, in the years ahead.”

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Discussion

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Educators, caregivers, students and the Board of Education are passionate about mathematics. Their dedication to high-quality mathematics can be fostered to develop the collective efficacy needed to build a mathematics program that addresses the needs of all learners. Through collaboration and the development of productive beliefs about mathematics education, stakeholders can take actions in alignment with those beliefs that will enhance the learning outcomes for all students within Princeton Public Schools.

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*Thank
You*

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