

Dr. Marta Pérez, Board Member

**SUBJECT: REVIEW OF THE MATHEMATICS COURSE OFFERINGS FOR
UPPER ELEMENTARY STUDENTS**

COMMITTEE: ACADEMICS, INNOVATION, EVALUATION & TECHNOLOGY

LINK TO STRATEGIC

BLUEPRINT: RELEVANT, RIGOROUS AND INNOVATIVE ACADEMICS

Lack of mastery of mathematics concepts prevents some secondary students from taking advanced mathematics courses in high school. Our students need this mastery to compete for admission at our country's top universities. Even when students do not pursue university programs, mastery of algebraic and geometric concepts prepares them in professional and technical arenas. Jo Boaler, Stanford University researcher, professor of math education and expert on math learning, states in her book, *Mathematical Mindsets*, "mathematics learning is not a race, and it is mathematical depth that inspires students and keeps them engaged and learning mathematics well, setting them up for high-level learning in the future." Students must develop deep conceptual understanding (why), procedural fluency (how), the ability to reason, and be able to apply mathematics (when). All four goals are critical for our students to be mathematically literate in the 21st century.

Basic algebraic and geometric concepts are introduced at the elementary level. While many students grasp these concepts, others struggle and continue to fall behind. When they reach middle school, they are not ready to take high school level math courses like geometry and progress to the more advanced courses because they lack understanding in foundational learning standards.

While continuing to solidify math learning for all students and ensuring a firm foundation for future math courses, this item seeks to explore the feasibility of adding accelerated pathways to further prepare elementary students in grades four and five to take upper mathematics classes at the secondary level by focusing efforts on:

- Accelerating students who are performing beyond grade level and are ready to move into more complex math; and
- Enriching math content for students who are meeting grade level mastery to increase access and participation in advanced math courses in the future.

Acceleration is a cost-effective intervention that costs little to implement, according to researchers at the University of Iowa and authors of "A Nation Empowered".

This item has been reviewed and approved by the School Board Attorney as to form and legal sufficiency.

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**Revised
H-5**

**ACTION PROPOSED BY
DR. MARTA PEREZ:**

That The School Board of Miami-Dade County, Florida, direct the Superintendent to:

1. review the mathematics course offerings for upper elementary students;
2. explore the feasibility of adding an accelerated mathematics course and providing enriching math content to further prepare elementary students to take upper level mathematics classes in middle and high school; and
3. report back to the board within the next ninety days.