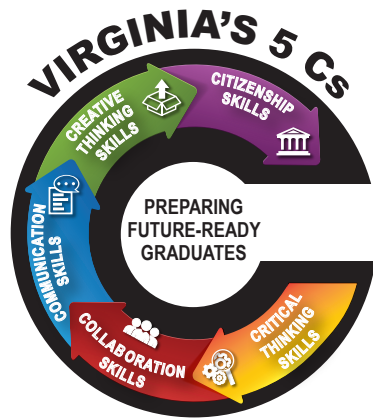


**VIRGINIA
MATHEMATICS
PATHWAYS
INITIATIVE**

ENHANCING MATHEMATICS FOR ALL STUDENTS



The demands of today's workforce for core skills, data literacy, and the 5 C's require redesigning the current mathematics curriculum to focus on core skills and deeper mathematical thinking.

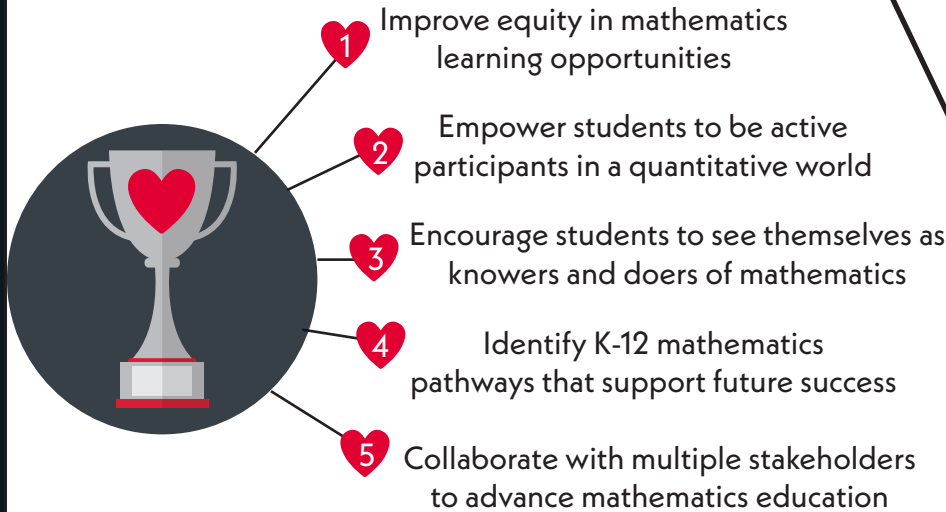
MATHEMATICS PATHWAYS

Creating pathways that build upon essential mathematics concepts



- Data Analysis
- Mathematical Modeling
- Functions and Algebra
- Spatial Reasoning
- Probability

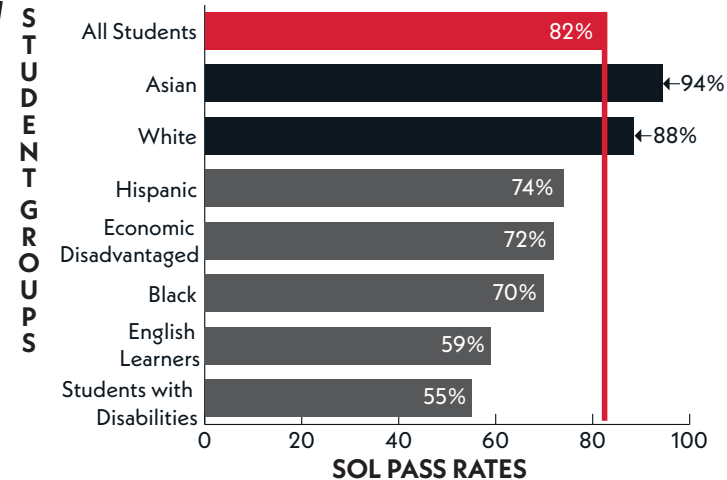
VMPI PROJECT GOALS



CREATING EQUITABLE LEARNING OPPORTUNITIES

Increasing opportunities and removing barriers for every student through mathematics learning to achieve their education and career goals.

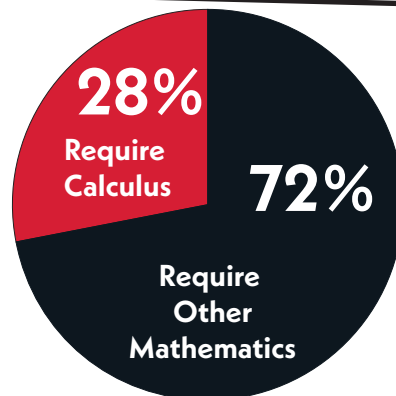
MATHEMATICS SOL PASS RATES - SPRING 2019



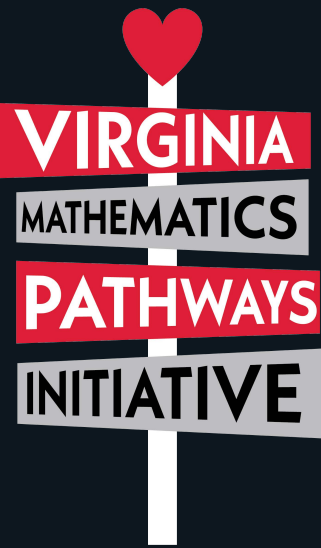
SOURCE: August 13, 2019
VDOE News Release

MODERNIZING
TODAY'S
MATHEMATICS
EDUCATION
TO PREPARE
STUDENTS
FOR THE NEXT
GENERATION
OF JOB
OPPORTUNITIES

**NOT ALL
COLLEGE
MAJORS
NEED
CALCULUS!**



**EVERYONE
IS A MATH PERSON!**



FOLLOW THE "MATH PATH"!

FOUNDATIONAL MATHEMATICS CONCEPTS GRADES K-7

- Number & Number Sense
- Computation and Estimation
- Measurement and Geometry
- Probability and Statistics
- Patterns, Functions, and Algebra

ESSENTIAL MATHEMATICS CONCEPTS GRADES 8-10 (2 HS Mathematics Credits)

- Data Analysis
- Mathematical Modeling
- Functions and Algebra
- Spatial Reasoning
- Probability

ADVANCED MATHEMATICS CONCEPTS GRADES 11-12 (2 HS Mathematics Credits)

Modules may be mixed and matched to total two credits and taken in any order except where pre-requisite knowledge may be necessary.

1/2 Credit Course Options	
Data Modules	<ul style="list-style-type: none"> • Data Science • Probability and Statistics
Design Modules	<ul style="list-style-type: none"> • Geometry and Design • Trigonometric Applications
Analysis Modules	<ul style="list-style-type: none"> • Applications of Advanced Algebra • Precalculus- Focus on Functions
Modeling Modules	<ul style="list-style-type: none"> • Mathematical Modeling • Financial Modeling
Computing Modules	<ul style="list-style-type: none"> • Discrete Mathematics for Computing • Sets and Logic

1 Credit Course Options	
<p><i>Some courses may include Dual Enrollment and Advanced Placement</i></p> <ul style="list-style-type: none"> • Quantitative Reasoning • Computer Science • Calculus • Statistics • International Baccalaureate 	

CAREER CLUSTERS

<ul style="list-style-type: none"> • Agriculture • Architecture • Arts • Business • Education • Energy • Finance • Government and Public Domain • Health 	<ul style="list-style-type: none"> • Hospitality and Tourism • Human Services • Information Technology • Law • Manufacturing • Marketing • STEM • Transportation
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MODERNIZING TODAY'S MATHEMATICS EDUCATION TO PREPARE STUDENTS FOR THE NEXT GENERATION OF JOB OPPORTUNITIES

TENTATIVE VMPI TIMELINE

- 2020-2021 Develop Essential Concepts
- 2021-2022 Revision Committee – Draft 2023 Math SOL
- 2022-2023 Board of Education Review of Draft 2023 Math SOL
- 2023-2024 Board of Education Approval Request 2023 Math SOL
- 2024-2025 Crosswalk Year 2023 Math SOL
- 2025-2026 Full Implementation 2023 Math SOL
- 2026-2027 Math Essential Concepts Course Implementation
New Graduation Requirements

