

Elements of Mathematics Foundations

An Online Middle School Curriculum
for **Mathematically** Talented Minds

EMMF

Affordable. Scalable. Proven.

Elements of Mathematics Foundations

For a talented student ...

Acceleration means more of the same, only faster.

EMF means you'll be a mathematician
in middle school!





EMF

Acceleration is *not* enough for many mathematically talented students. They deserve an opportunity to be challenged at levels commensurate with their abilities and meet their need to achieve academic gains.

EMF recognizes that certain fundamental concepts elegantly unify the various branches of mathematics.

EMF teaches these concepts and then builds on that foundation to explore modern mathematics.

In EMF, math unfolds in a naturally interconnected way rather than as a sequence of seemingly unrelated topics.

Elements of Mathematics Foundations

Abstract Thinking

Creativity

Logic

Complexity

Depth

Pre-Algebra through Precalculus and beyond!

Elements of Mathematics Foundations

- Proven track record in large and small districts.
- Accessible to all middle school ages.
- Exceeds all national and state math standards.
- Advance according to mastery.
- Online. Self-study. Self-paced.
- Modern mathematics as practiced by modern mathematicians.
- A thorough preparation for AP[®] Calculus and advanced college courses.



Elements of Mathematics Foundations

... Because **Teachers** Need Time-Saving Tools

- No additional teacher training required.
- Automatic grading.
- Effective in-class differentiation.
- Online gradebook and weekly progress reports.
- Free up time to work with non-EMF students.



EMF Offers Proven Solutions That Work for All Stakeholders ...

Elements of Mathematics Foundations

... Because **Schools** and **Districts** Need to Allocate
Resources Wisely

- Covers Pre-Algebra, Algebra 1 & 2, Geometry, Precalculus and beyond in grades 6-8.
- Exceeds all national and state math standards.
- Learning Management Systems integration.
- Scalable for any sized district.
- Affordable.



EMF Frequently Asked Questions

What makes EMF unique?

Most programs never go beyond mathematics that was completely understood by the late 17th century. EMF teaches a modern approach, including thorough introductions to Abstract Algebra, Logic, Set Theory, Number Theory and Topology.

How do students qualify for EMF?

To qualify, students complete the first EMF course with an average of least 90% during the summer before 6th grade. For licensees, the first course is offered at no cost to an unlimited number of students.

Since there is no local instruction, what do students do when they need help?

Students post questions to the online EMF Help Forum to be answered by advanced students or experienced instructors. Students also review previous Help Forum exchanges.

How do teachers monitor performance?

EMF includes an online master gradebook through which teachers track their students' grades, pacing & time-on-task.

How do parents monitor their child's progress?

A progress report is emailed to parents each Monday morning and includes the current grades, how far the students is ahead of (or behind) schedule, and the next five upcoming benchmarks.

Does EMF replace a student's middle school math program?

Yes. Students study EMF during the time allotted for their math class. A student's report card grades in math are calculated from his or her EMF grades.

And when a student completes the EMF program?

He or she qualifies for high school credits in Algebra 1, Algebra 2, Geometry and Precalculus, and will be ready to take AP[®] Calculus in 9th grade.

What is the cost to license EMF?

Licensing fees vary according to the number of students enrolled. For more information and to request a free trial, contact the Institute for Mathematics & Computer Science at the email address, phone number, or website below.

Operational Systems
The Integers
Sets Subsets
& Set Operations
Ordered n-Tuples
Mappings
The Rationals
The Decimals
Probability
Number Theory

Students earn Pre-Algebra credit.

Algebra Groups, Rings
and Fields
Algebra Relations, Mappings and
Equations over Fields
Algebra Relational Systems and
Ordered Operational Systems
Real Functions I
Real Functions II

Students earn Algebra I
and Algebra II credits.

Geometry Incidence and
Transformations
Geometry Congruence and
Similarity
Geometry Coordinates and
Measurement
Precalculus Coda

Students earn Geometry
and Precalculus credit.