Eureka Math Squared

Maury & DCPS Math Curriculum

What is EM2?

- A coherent, grade-by-grade K–8 curriculum focused on deep conceptual understanding, procedural fluency, and problem solving.
- Builds mathematical thinking through progression: concrete → pictorial → abstract
  - For ex:
    - Using counters or cubes to show addition or subtraction (concrete)
    - Draw circles or arrays for multiplication (pictorial)
    - Use symbols/numbers to represent concepts, like 5 x 8= 40 (abstract)
- Emphasizes math talk, reasoning, and connections across topics
- *Is guided by Common Core State Standards

Big Goals of EM2

- Develop number sense and fluency
- Build understanding of operations and place value
- Introduce and deepen fractions, ratios, early algebraic thinking, and geometry
- Prepare students to reason and solve complex real-world problems

K-5 Progressions

- **Kindergarten–2nd:** This is the foundation! Covers place value, addition & subtraction, early measurement, shapes.
- **3rd–5th:** Builds on the foundation! Covers multiplication & division, fractions as numbers, decimals, area & volume foundations, introductory reasoning and expressions.

How this prepares for middle school: Strong fraction understanding, fluency with arithmetic, and early algebraic reasoning are the biggest predictors of success in grades 6–8

*For example, 4th grade fraction work leads into 6th grade ratio and percent

Progression, continued (MS)

- 4th grade: fraction equivalence, addition/subtraction of fractions with like denominators, multiplication as scaling

--> into

- 5th grade: addition/subtraction with unlike denominators, multiplication of fractions, decimal fractions

--> into

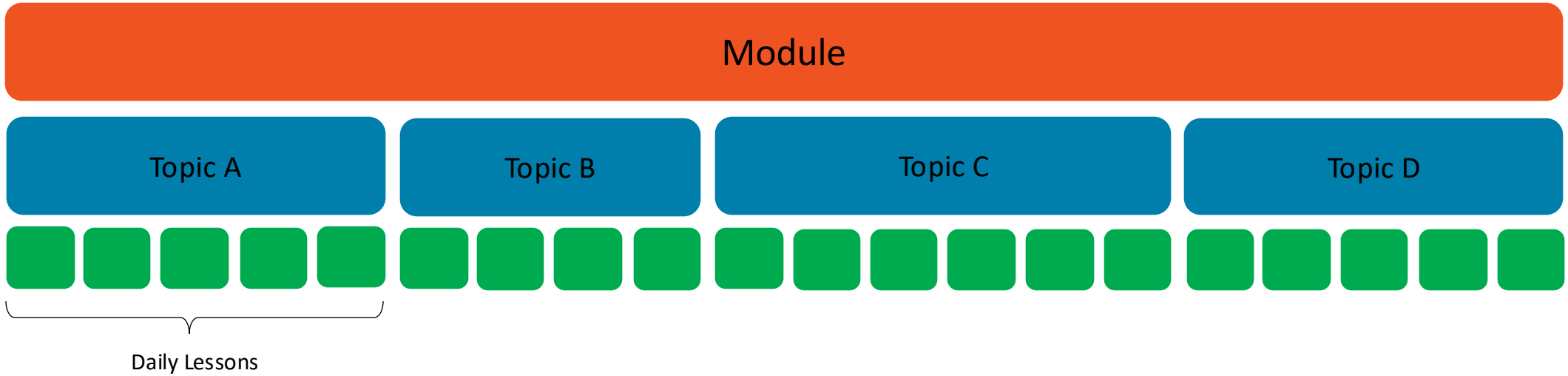
- Middle school: ratios, rates, proportional reasoning, fraction operations embedded in algebra and ratios

*Eureka Math*²™ K–5 Module Map

Module	K Part–Part–Total	1 Units of Ten	2 Ten Tens	3 Units of Any Number	4 Fractional Units	5 Fractions are Numbers
1	Counting and Cardinality 7 topics 33 lessons	Counting, Comparison, and Addition 4 topics 25 lessons	Place Value Concepts Through Metric Measurement and Data • Place Value, Counting, and Comparing within 1,000 9 topics 38 lessons	Multiplication and Division with Units of 2, 3, 4, 5, and 10 5 topics 23 lessons	Place Value Concepts for Addition and Subtraction 5 topics 24 lessons	Place Value Concepts for Multiplication and Division with Whole Numbers 4 topics 20 lessons
2	Two- and Three-Dimensional Shapes 3 topics 16 lessons	Addition and Subtraction Relationships 5 topics 23 lessons	Addition and Subtraction within 200 4 topics 27 lessons	Place Value Concepts Through Metric Measurement 4 topics 25 lessons	Place Value Concepts for Multiplication and Division 5 topics 26 lessons	Addition and Subtraction with Fractions 4 topics 17 lessons
3	Comparison 4 topics 22 lessons	Properties of Operations to Make Easier Problems 5 topics 26 lessons	Shapes and Time with Fraction Concepts 4 topics 19 lessons	Multiplication and Division with Units of 0, 1, 6, 7, 8, and 9 4 topics 25 lessons	Multiplication and Division of Multi-Digit Numbers 6 topics 24 lessons	Multiplication and Division with Fractions 4 topics 22 lessons
4	Composition and Decomposition 3 topics 18 lessons	Comparison and Composition of Length Measurements 3 topics 14 lessons	Addition and Subtraction within 1,000 24 lessons	Multiplication and Area 4 topics 19 lessons	Foundations for Fraction Operations 6 topics 34 lessons	Place Value Concepts for Decimal Operations 30 lessons
5	Addition and Subtraction 4 topics 27 lessons	Place Value Concepts to Compare, Add, and Subtract 5 topics 25 lessons	Money, Data, and Customary Measurement 3 topics 16 lessons	Fractions as Numbers 5 topics 27 lessons	Place Value Concepts for Decimal Fractions 4 topics 14 lessons	Addition and Multiplication with Area and Volume 4 topics 28 lessons
6	Place Value Foundations 4 topics 24 lessons	Attributes of Shapes • Advancing Place Value, Addition, and Subtraction 6 topics 31 lessons	Multiplication and Division Foundations 4 topics 18 lessons	Geometry, Measurement, and Data 4 topics 26 lessons	Angle Measurements and Plane Figures 4 topics 20 lessons	Foundations to Geometry in the Coordinate Plane 4 topics 20 lessons
Total	25 topics 140 lessons 30 assessment days	28 topics 144 lessons 30 assessment days	29 topics 142 lessons 30 assessment days	26 topics 145 lessons 30 assessment days	30 topics 142 lessons 30 assessment days	25 topics 137 lessons 30 assessment days

Modules & Pacing

- Each module typically spans 2-6 weeks depending upon topic and grade
- In *every* module, you'll find: fluency practice, concept development, application, and formal checks for understanding (exit tickets, topic quizzes)



Lesson Structure in Eureka Math^2

Lesson Structure Overview

Fluency:

Quick, distributed practice of previously learned skills to activate prior knowledge and prepare students for new material.

Launch:

Accessible entry point to the lesson, often using a low-floor/high-ceiling activity that creates a 'need to know' for the day's learning. Ends with a transition statement that sets the goal for the lesson.

Learn:

Core of the lesson where new concepts are presented. Involves instructional segments and includes a Problem Set for independent practice. Can incorporate direct instruction, group work, or digital interactives.

Land:

Brief concluding discussion that helps students synthesize the day's learning. Facilitated through questions that connect new concepts to the Launch activity and other parts of the lesson.



Supporting Learning at Home

How Parents Can Help at Home

Homework Review Support

Reviewing homework together reinforces classroom learning and creates discussion opportunities.

Encouraging Math Talk

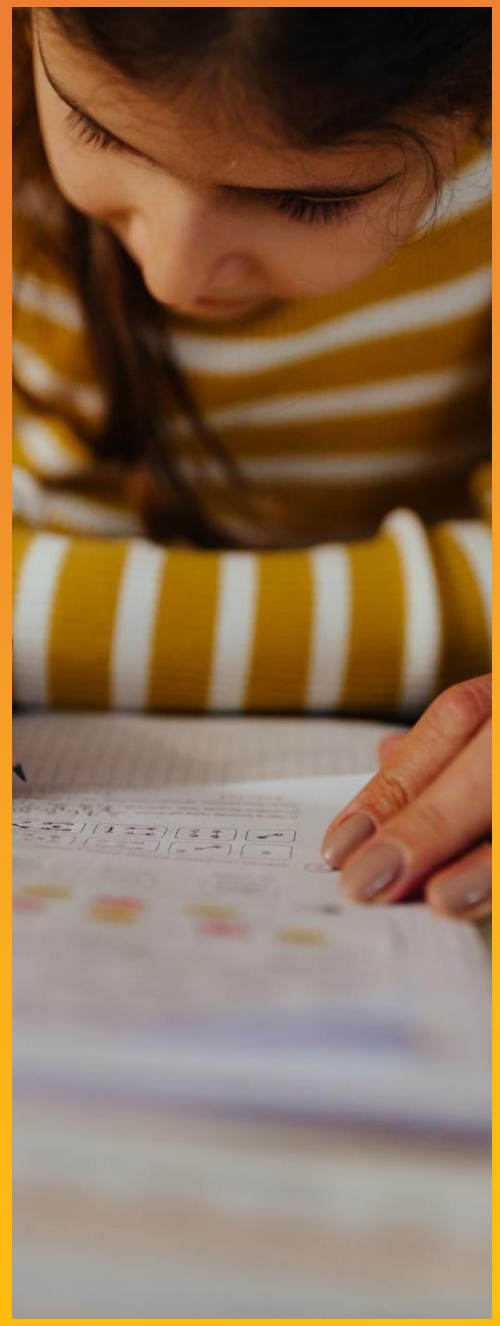
Asking children to explain their thinking strengthens understanding and builds confidence.

Using Real-Life Math

Applying math to daily activities shows its relevance and practical use.

Positive and Patient Attitude

Maintaining patience helps children overcome challenges and develop a growth mindset.



Practical Tips for K-5 Parents

Tips for K-5 Support

Encourage Critical Thinking

Ask open-ended questions like 'How did you solve that?' to foster critical thinking and reasoning skills.

Use Math Games and Puzzles

Incorporate math games and puzzles into daily routines to make learning fun and reinforce key concepts.

Emphasize Math Vocabulary

Teach math terms like 'sum,' 'difference,' and 'fraction' to help children become familiar with math language.

Celebrate Effort and Resilience

Focus on celebrating effort rather than just correct answers to foster a positive learning attitude.

