Targeted Intervention for Math
GRADES 2–8

Create confident, independent learners with Vmath’s focused, standards-based instruction.
**Vmath®** Third Edition provides struggling learners in grades 2–8 with opportunities for mastering critical math concepts and skills.

**Standards-Based Instruction that Increases Math Achievement**

Thousands of struggling students have seen improvement in math ability with **Vmath**. Simple to understand and implement, **Vmath** delivers essential content using strategies proven to accelerate and motivate struggling and at-risk students. **Vmath’s** daily lessons are presented in an easy, format that provides clear instructions using visual models, so students can better understand math concepts.

- **Vmath** teaches skills for grade-level success and college and career readiness
- Correlated with Common Core, TEKS, and other state standards
- Each level of **Vmath** is a full-year program that supports any core curriculum
- Multiple opportunities to assess, reinforce, and differentiate instruction
- Comprehensive, systematic, and explicit approach
- Easy and flexible implementation model
- Meets ESSA’s Moderate (2) Evidence Criteria
Vmath Makes a Difference in the Way Students Learn . . . and Educators Teach

Students

- Learn through conceptual development, procedural skill and fluency practice, and application activities
- Experience explicit support in the skills expected by new, more rigorous standards
- Master grade-level content and reinforce skills taught in the core curriculum
- Benefit from detailed instruction that supports the progression of skills outlined in state and national standards

Classroom Instruction Plus Online Practice Equals Maximum Results

Vmath utilizes technology to make math more hands on and engaging for struggling students. Several online features, including Gizmos® and VmathLive®, enhance the instructional experience.

Vmath also is mobile. From one electronic device, teachers can instruct, make assignments, communicate with students, review student assessment data, and access multimedia tools.

Teachers

- Like the program’s easy-to-follow foundational lessons that help students build skills in a scaffolded format
- Appreciate Vmath’s easy implementation model, which leads to fast results
- Welcome the comprehensive, built-in assessment system, which helps them understand their students’ strengths and weaknesses, and differentiate their instruction
- Love the ease of use of the teacher and student materials

Since the implementation of Vmath, we have seen an increase in student performance on various assessments administered schoolwide and, ultimately, produced significant increases on state and national assessments. We will continue to use Vmath because it is making a difference in the lives of our students.

Tammy Brown, Reading and Math Coach
Aliceville Middle School, Aliceville, AL
The Solution for Struggling Students

**Vmath** Works Because It Helps Students:

1. **UNDERSTAND MATH CONCEPTS**

   *Vmath* integrates instruction in math concepts consistently in every module. These powerful tools support conceptual understanding:

   - **Build the Concept** boxes use visual models to help students develop a deeper understanding of targeted math concepts
   - **Hands-On** Guided Discovery
   - **Gizmos** Guided Discovery

2. **MASTER MATH PROCEDURES**

   - The **How To** box provides students with detailed steps, so they can repeat procedures they learn
   - **Build the Concept** boxes use visual models to help students develop a deeper understanding of targeted math concepts
   - **Extra Practice** pages reinforce automaticity
   - **VmathLive** facilitates computational fluency

3. **DEVELOP PROBLEM-SOLVING SKILLS**

   Problem solving is introduced strategically throughout each *Vmath* module to help students:

   1. Formulate a plan
   2. Implement the plan
   3. Explain their thinking

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**Using a 4-Step Plan**

The high temperature yesterday was -2°F. The forecast for today says the high temperature will be the opposite of the high temperature yesterday. What is the forecast for the high temperature today?

- **Find**: the forecast for the high temperature today
- **How**: Use a 4-step plan.
- **Solve**: Find the opposite of -2°F.
- **Explain**: Is the answer reasonable? Explain.

**High Temperature**

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<tr>
<th>Yesterday</th>
<th>Today</th>
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<tbody>
<tr>
<td>-2°F</td>
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**Opposite**

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<tbody>
<tr>
<td>_____</td>
<td>2°F</td>
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**Explain**

Is the answer reasonable? Explain.
4. APPLY MATH SKILLS

**Vmath** helps students apply their learning. Each daily lesson provides opportunities for students to communicate their thinking.

- Math Writing
- Algebraic Thinking
- Explaining Answers
- Talking about Math

5. DIFFERENTIATION

**Vmath** offers multiple opportunities to assess, reinforce, and differentiate instruction for many different learners. Some differentiation opportunities teachers can use to get the most of **Vmath** for all learners, include:

- Foundations Modules
- Pre-skills Lessons
- Extra Practice
- **VmathLive**
- Reteach Lessons
- Embedded Specific Strategies for English-Language Learners and Students with Special Needs

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**English Language Learners**

As a class, talk through the problems in Lesson 5, looking for word clues that tell which operation to use to solve the problem. Some word clues are: together, same, each, total. Show students how to use the words and numbers in a problem to understand what the problem is asking for. Encourage students to use drawings to help them identify what they are trying to find.

**Students with Special Needs**

Have students draw a number line for reference that shows -10 to 10, labeling the left arrow with the words Lesser, Less than, and Least, all of which begin with the letter L. This will be a visual cue for students to remember that numbers farther to the left on a number line are less than numbers toward the right.

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**Vmath** is a great instructional program that provides students with basic learning tools in a building, sequential order to be successful in math. I truly believe in the program.

Sergio Baca, Bilingual Teacher
El Paso ISD, TX
Streamlined Teacher Materials

- Teacher Edition—print and eBook
- Assessment Guide eBook
- Vmath Teacher Center
- Student Materials
- Reteach eBook
- Adventure eBook

Teacher Center
Everything in One Place
- Access to eBooks
- Access to online learning tools
- Interactive whiteboard activities
- Access to assessment and reporting tools

Engaging Student Materials

Student Math Pack—7 modules
- Student Books—print and eBooks
- Reteach eBook
- Adventure eBook
- Assessment eBook
- Vmath Student Center with VmathLive
- Gizmos
- Vmath Testing Center
Systematic Approach Provides Progression to Grade-Level Math

- **7 levels**
- **7 modules per level** the first module in every level is a Foundational Module that reviews instruction from previous grade levels
- **10–15 lessons per module** plus two pre-skills lessons
- **Built-in time** for differentiation and assessment
- Every module includes pre-skills, extra practice, and reteach activities

**LEVEL D**
1. Foundations
2. Whole Numbers
3. Whole Number Addition and Subtraction
4. Whole Number Multiplication
5. Whole Number Division
6. Fractions and Money
7. Data, Measurement, and Geometry

**LEVEL E**
1. Foundations
2. Addition and Subtraction
3. Multiplication and Division
4. Understanding Fractions and Equivalence
5. Operations on Fractions and Relationship to Decimals
6. Geometry
7. Measurement and Data

**LEVEL F**
1. Foundations
2. Whole Numbers and Decimals
3. Operations with Whole Numbers and Decimals
4. Fractions
5. Algebraic Reasoning
6. Data Analysis
7. Geometry and Measurement

**LEVEL G**
1. Foundations
2. Rational Numbers Part A
3. Rational Numbers Part B
4. Expressions, Equations, and Inequalities
5. Proportional Thinking
6. Geometry
7. Data

**LEVEL H**
1. Foundations
2. Rational Numbers Part A
3. Rational Numbers Part B
4. Expressions, Equations, and Inequalities
5. Proportionality
6. Geometry
7. Data, Probability, and Statistics

**LEVEL I**
1. Foundations
2. Real Numbers
3. Equations
4. Functions Part A
5. Functions Part B
6. Transforming Geometry
7. Geometry

Visit voyagersopris.com/vmath for complimentary samples.
Four Types of Lessons Engage Students, Scaffold Content, and Focus on Math Concepts

**Vmath**

**VMATH LESSONS**
- Four-step lessons: Get Started, Try It Together, Work on Your Own, Check Up
- Explicit instruction that reinforces skills, concepts, or problem solving
- 40–45 minutes (with implementation options for 20–30 minutes)

**Math Flash**

**MATH FLASH LESSONS**
- These quick lessons help students practice and master a specific skill or concepts that are frequently tested
- 20-minute lessons

**Hands-on**

**HANDS-ON LESSONS**
- Hands-on **Vmath** lessons with colorful and eye-catching visuals and instructions make math enjoyable for students.
- Four-step lessons: Get Ready, Discover, Discover Box, Explore More
- Students learn how to use manipulatives to model conceptual understanding.
- 40–45 minutes included in Levels D–I

**Gizmos**

**GIZMOS LESSONS**
- Four-step lessons: Get Ready, Discover, Discover Box, Explore More
- Students learn through online digital manipulatives and interactive simulations and reinforce their conceptual understanding
- Infuse fun, easy-to-navigate activities for diverse learners

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**Vmath** breaks it down for students who are having difficulty with math. I have seen the growth. It is a great program that definitely motivates the students. I really appreciate **Vmath** and what it has brought to my class and the fact that it has helped so many of my students do much better in math.

Giovanni Amorante, Teacher
Country Club Middle School, Miami, FL
The Vmath Advantage

Vmath has several advantages that help students want to learn math. Vmath makes math more accessible to all learners with a fresh, fun approach. Those three components—consistency, vocabulary, and visual models—are called the Vmath Advantage, which we know helps students reach greater levels of competence in math.

Consistent lesson design

The four-step Vmath lesson format aligns with the major components of explicit instruction for improved understanding of math concepts, skills, and procedures.

Simple Math Vocabulary

Vmath lessons reinforce the academic vocabulary critical for student understanding. Teachers introduce new vocabulary at the start of each lesson, reinforce throughout the lesson, and provide multiple exposures to those new words.

**Academic Vocabulary**

Before the lesson, introduce and discuss the Academic Vocabulary. Refer to the Academic Vocabulary as needed during the lesson.

- **Commutative Property of Addition**
  states the order of the addends can be changed without affecting the sum
- **Associative Property of Addition**
  states the grouping of the addends can be changed without affecting the sum

Visual Models

Build the Concept boxes use visual models to help students develop a deeper understanding of targeted math concepts.
**Vmath Works**

*Vmath* Third Edition stems from a strong research foundation as well as the strong instructional approach of previous editions, which have been validated in schools across the country. *Vmath* Third Edition uses the Progress Assessment of Mathematics (PAM), created by MetaMetrics, developer of The Quantile® Framework for Mathematics, to monitor and measure growth in mathematical skills across the school year.

### National Results

During the 2016–2017 school year, 6,277 students who received *Vmath* Third Edition instruction had PAM scores for the beginning of the year (BOY), middle of the year (MOY), and end of the year (EOY). These students were from 79 districts across 27 states in 363 schools. The data shows the results for students with matched scores for the whole group and for each *Vmath* Third Edition level. The BOY PAM average Quantile and EOY PAM average Quantile are shown for each program level.
Data-Driven Assessment Informs Instruction

**Vmath** provides a full range of assessments to help educators determine students’ strengths and weaknesses. Assessment scores can be viewed online and help teachers monitor progress, make instructional decisions, and document responses to intervention.

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**Vmath Assessment System:**

Identify Student Needs and Monitor Progress

- **Initial Assessment**
  - Identify Needs
  - Progress Assessment 1
  - Modules 1–4

- **Progress Assessments**
  - Progress Assessment 2
  - Modules 5–7
  - Measure Intervention Results
  - Progress Assessment 3

- **Final Assessment**
  - Measure Intervention Results

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**Initial** and **Final Assessments** identify student weaknesses and determine (along with district criteria) appropriate entry points into instruction. They also measure student growth and mastery throughout the course.

**Progress Assessments** are administered three times throughout the school year to monitor progress. These tests yield a Quantile score to guide instructional decisions.

**Module Pre- and Post-tests** provide teachers with data to measure a student’s response to the **Vmath** intervention and make instructional adjustments.

**Ongoing informal assessments** help teachers gauge students’ reactions to instructions, listen as students respond to questions, and evaluate daily work—specific review and reteaching suggestions are provided. Check Up questions allow teachers to informally assess students after each lesson.

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**Vmath was easy to implement. The materials were self-contained and ready to go. I loved the pre- and post-tests because they enabled me to see what the students knew or didn’t know.**

Bernice Friesenhahn,
Compensatory Education Teacher
Olympia Elementary School, Universal City, TX
Differentiation Informed by Data

Responding to Data

*Vmath* has built-in opportunities to ensure instruction meets specific student needs based on performance data.

There are several differentiation types teachers can employ to meet the needs of diverse learners:

- Foundations Modules
- Pre-skills Lessons
- Extra Practice
- *VmathLive*
- Reteach Lessons
- Embedded Specific Strategies for English Language Learners and Students with Special Needs

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**Differentiation**

**Additional Resources**

- **VmathLive**
  - Module: Data, Measurement, and Geometry
  - Activity: Bar Graphs 1
- **Vmath Reteach**
  - Reteach Student Book Module 7 Lesson 3
  - Reteach Teacher Edition Module 7 Lesson 3
- **Extra Practice**
  - Student Book page 69

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**English Language Learners**

Use the smartphone retained dictionary to review the terms. Demonstrate the terminology through the use of real-life examples.

**Students with Special Needs**

Reteach the lesson on the interactive whiteboard or provide a visual aid for the students. Use the VmathLive app to create individualized tasks.

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**Technology**

Interactive apps and web-based resources can be used to enhance instruction. The VmathLive app can be used to create personalized lessons and practice.
VmathLive is the online component of Vmath that reinforces the skills and concepts being taught. Completely aligned with Vmath lessons, teachers can assign VmathLive lessons to students based on their specific classroom needs.

- **VmathLive** is easily accessible to students to maximize the time they are spending learning and practicing math
- Students can play **VmathLive** anywhere with an Internet connection
- Each math problem is clearly presented with easy-to-understand visuals and feedback is instant
- If students don’t understand the problem, they can get assistance immediately, so they don’t lose motivation or momentum in their learning process
- Tutorial videos (available in English and Spanish) help students better understand concepts when they need a little more explanation

**Problem-Solving Activity**

**Practice Activities**

**Compete with other students or the computer**

**Rewards promote student participation**
Flexible and Easy to Implement

Vmath offers teachers the flexibility to use modules to best fit their classroom needs. The pacing models below reflect the implementation flexibility offered by Vmath. The implementation plans designate time for differentiation and assessment.

45-Minute Implementation*

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<td>Try It Together</td>
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<td>Work On Your Own</td>
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20- to 30-Minute Implementation*

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<td>DAY ONE: Lesson</td>
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<td>Work On Your Own</td>
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<td>Check Up</td>
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Pacing at the Lesson Level

Each of the different lessons included within Vmath has a predictable lesson structure and can be adjusted to a 20- to 30-minute implementation or a 45-minute implementation. They also can be adjusted to fit multiple scheduling options. The following charts outline some pacing suggestions at the lesson level based on various implementation models.

20- to 30-Minute Implementation

Vmath Lesson—2-Day Lesson Cycle

| DAY ONE: Lesson Structure |
| Get Started | 6–8 minutes |
| Try It Together | 6–12 minutes |
| Work On Your Own | 8–10 minutes |

45-Minute Implementation

Vmath Lessons—1 Per Day

| Lesson Structure |
| Get Started | 5 minutes |
| Try It Together | 10 minutes |
| Work On Your Own | 15 minutes |
| Check Up | 15 minutes |

| Lesson Structure (Levels D–I) |
| Math Flash | 20–30 minutes |
| VmathLive or Reteach | 15–20 minutes |

* All models are approximations. Example based on students scoring above 70 percent on Module Pre-test
Let Us Create a Custom Implementation Plan

The highest level of educator support leads to increased student achievement. That’s our primary goal.

Service does not come in a box. It must be customized to meet the specific needs of districts, schools, administrators, and teachers. Firmly grounded in research, the Voyager Sopris Learning® approach is built around the “Five Keys to Success,” which form the foundation for a personalized strategy for planning, training, and ongoing support.

Our team specializes in partnering with schools and districts to build custom Vmath implementation support plans to ensure all stakeholders are prepared to implement and sustain Vmath implementation.

Key stages of Vmath implementation include:

- Pre-Implementation Planning
- Launch
- Ongoing
- Data Review

Visit voyagersopris.com/vmath to review training options and a comprehensive menu of services.
Support Students in Reaching Rigorous Mathematics Standards

Vmath is a total solution to teaching math to struggling students. It provides a unique combination of systematic daily instructions, monitoring of student progress, and online lessons that build math skills and help raise test scores. And, it makes math more exciting for students in a fun, easy-to-understand format.

Get Started Today with vMath:
1) Visit: voyagersopris.com/vmath to download a sample
2) CONTACT US for more information: info@voyagersopris.com