



TARGETED MATH INTERVENTION
GRADES 2-8

**Create confident, independent learners
with *Vmath's* focused, explicit instruction.**

Vmath Creates Successful Learning Experiences for Students

Vmath® Third Edition provides struggling learners in grades 2–8 with opportunities for mastering critical math concepts and skills.



Increase 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
- 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

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



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



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 device, teachers can instruct, make assignments, communicate with students, review student assessment data, and access multimedia tools.



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:



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

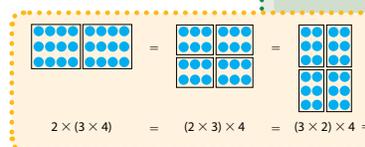
WORK ON YOUR OWN

HOW TO

Recognize Multiplication and Division Fact Families

Using Symbols	Using Words
Multiplication Facts $6 \times 8 = 48$ $8 \times 6 = 48$ $4 \times 4 = 16$	Division Facts $48 \div 8 = 6$ $48 \div 6 = 8$ $16 \div 4 = 4$

Two different factors and their product make a fact family. Each fact in a fact family uses the same three numbers.
The three numbers in a fact family make two multiplication facts and two division facts.
If the two factors are the same, the three numbers make one multiplication fact and one division fact.



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

PROBLEM-SOLVING

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 .

high temperature yesterday: _____
opposite: _____

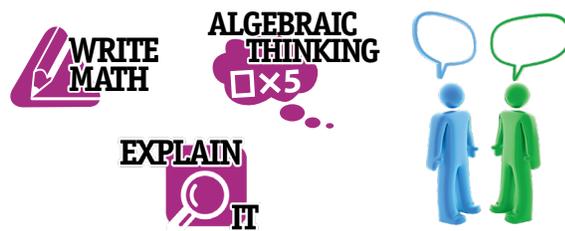
d. Is the answer reasonable? Explain. _____

4. APPLY MATH SKILLS

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

These powerful tools support conceptual understanding:

- 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

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.

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.



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

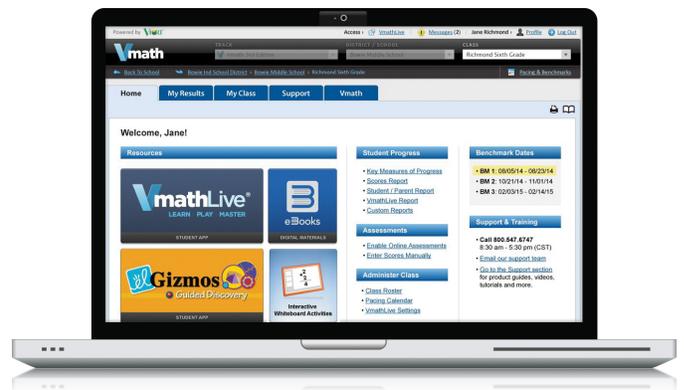
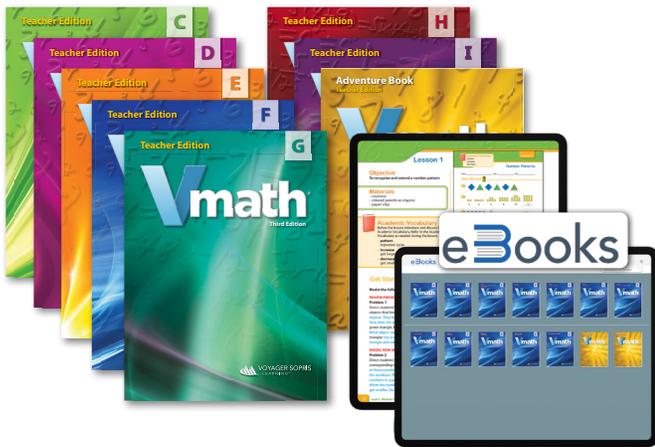
Streamlined Teacher Materials

- Teacher Edition—Print and eBook
- Assessment Guide eBook
- **Vmath** Teacher Center
- *VmathLive*
- Student Materials
- Reteach eBook
- Adventure eBook

Teacher Center

Everything in One Place

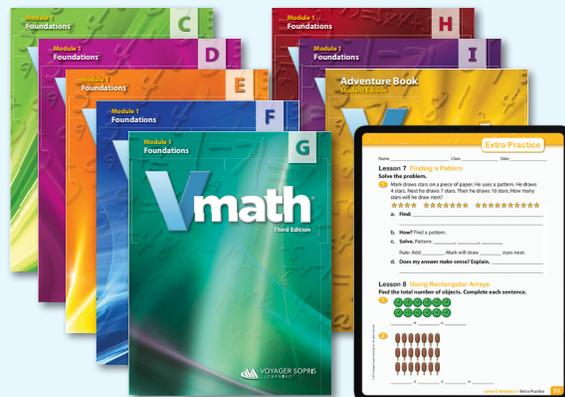
- Access to eBooks
- Access to Online Learning Tools
- Interactive Whiteboard Activities
- Access to Assessment and Reporting Tools



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

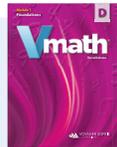
LEVEL C

1. Foundations
2. Addition
3. Subtraction
4. Measurement
5. Money and Geometry
6. Time, Graphing, and Data
7. Fractions and Concepts of Multiplying and Dividing



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



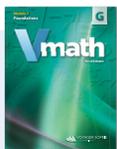
LEVEL F

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



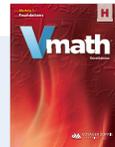
LEVEL G

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



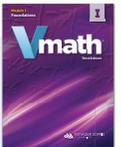
LEVEL H

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 to review a sample.

Four Types of Lessons Engage Students, Scaffold Content, and Focus on Math Concepts



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 20–20 minutes)



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 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 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



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."

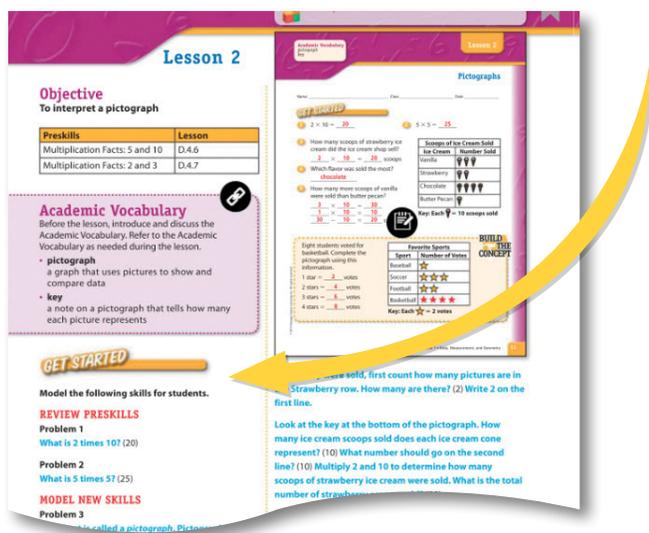
Giovanni Amorante, Teacher
Country Club Middle School, Miami, FL

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.



- STEP 1** **GET STARTED**
Teacher Modeling
- STEP 2** **TRY IT TOGETHER**
Student and Teacher Interaction
- STEP 3** **WORK ON YOUR OWN**
Independent Work
- STEP 4** **CHECK UP**
Error Analysis

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.

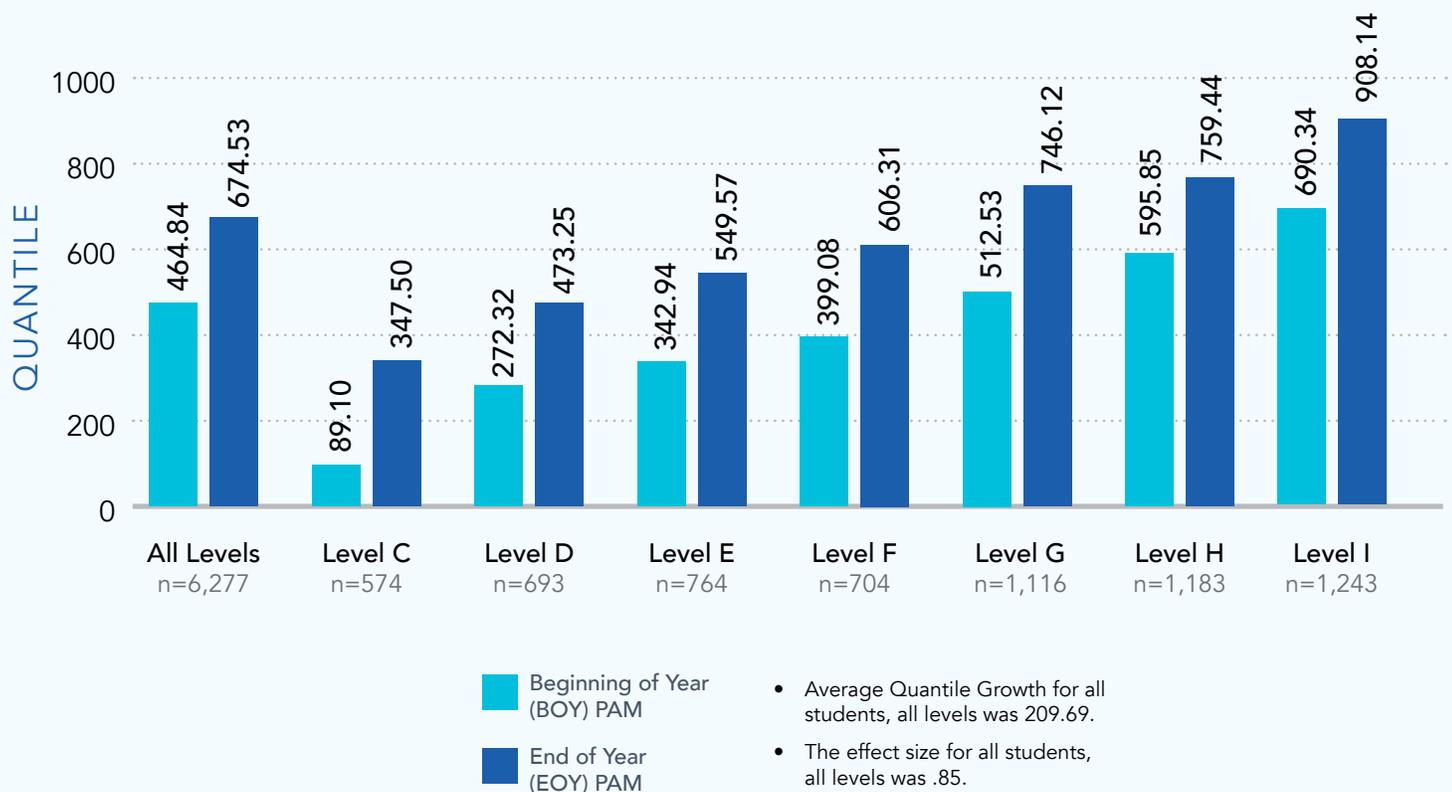
BUILD THE CONCEPT

$2 \times (3 \times 4) = (2 \times 3) \times 4 = (3 \times 2) \times 4 = \underline{\hspace{2cm}}$

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.

Vmath Third Edition 2016–2017 Results by Program Level

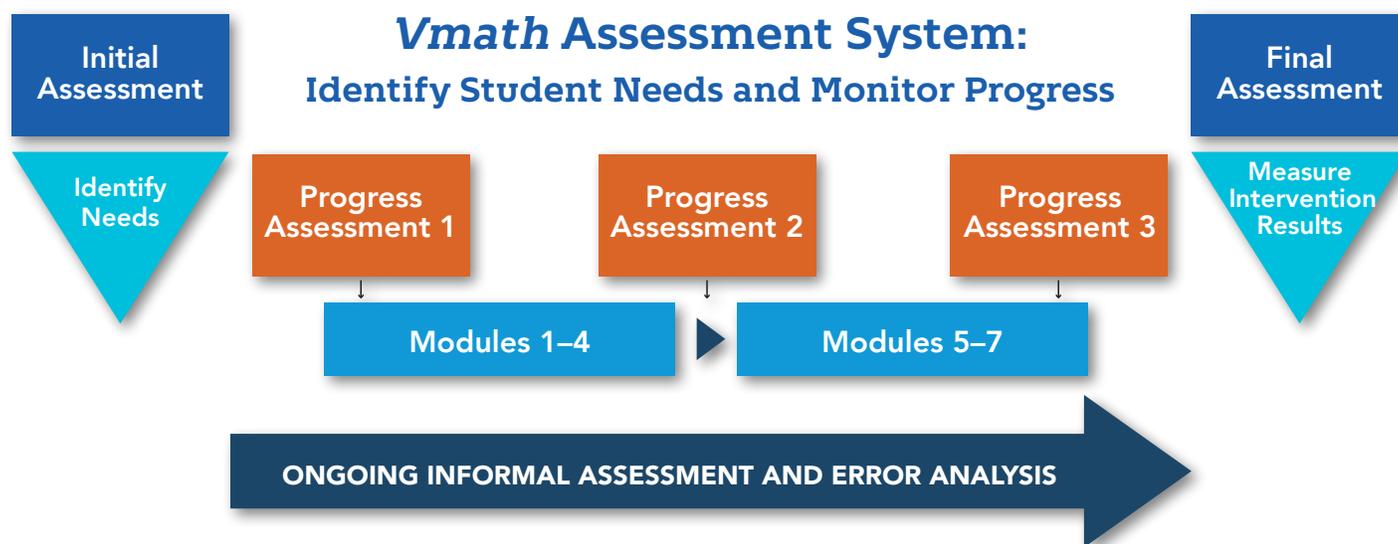


National Results

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.



- **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.



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

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

Lesson 3

Lesson 3

Check It!

Answer each question.

1. Which of these categories is not on the graph?

a. Fish b. Fruit c. Milk d. Juice

2. How many more students went to a park than a mall?

a. 4 students b. 18 students c. 9 students d. 1 student

3. Why is it important to read the categories on a bar graph? They tell what the bars are.

Explain It!

Explain how the answer to question 2 is correct. First, the bar heights and widths are the same. The bars have many more spaces between them than the other bars. The bars are all the same height. The bars are all the same width. The bars are all the same color. The bars are all the same shape. The bars are all the same size. The bars are all the same color. The bars are all the same shape. The bars are all the same size. The bars are all the same color. The bars are all the same shape. The bars are all the same size.

Compare the graph on the right with the graph above. How are they alike? How are they different? They have the same labels and categories. They have the same axes. They have the same title. They have the same scale. They have the same data.

English Language Learners

Use the *VmathLive* Animated Glossary to review the term bar graph. Demonstrate the vocabulary at the beginning of the lesson as students gather around the computer screen or through a projection system if possible.

Copy one of the bar graphs from the lesson on the board. Label the title and read the term title and the title aloud. Ask students to repeat. Point to the title on the graph and explain that it is the title of the graph. It tells what the graph is about. Repeat this process for the graph's labels, categories, scale, and bars. Use the rest of the graphs in this lesson to have students practice identifying and naming the parts of a bar graph using appropriate math vocabulary.

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

Students with Special Needs

To help students interpret bars that end between numbered scale lines, have them use a ruler to draw an additional horizontal scale line between the given lines on the bar graphs. For all the graphs except Favorite Season, students should draw a scale line halfway between each consecutive pair of numbered lines and label each with the correct odd number. For the Favorite Season bar graph, students should draw two scale lines between each consecutive pair of numbered lines to divide the space into three sections, then label the missing numbers (1, 2, 4, 5, etc.). The additional labels will help students interpret the meaning of each bar and answer each question.

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

Technology

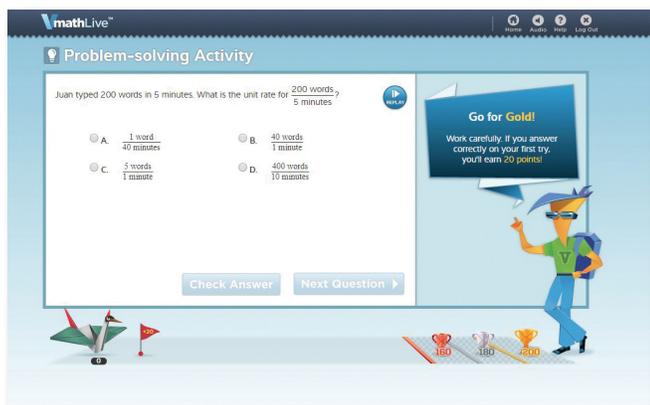
Have students use an online search engine to discover other ways to apply bar graphs in real-life situations. Additional digital content is available through this feature in the eBook.



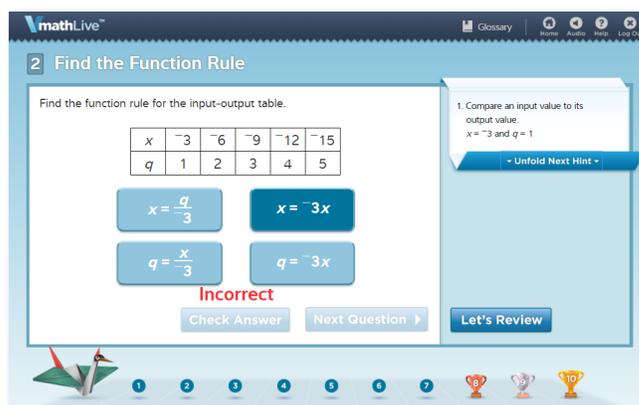
VmathLive®

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



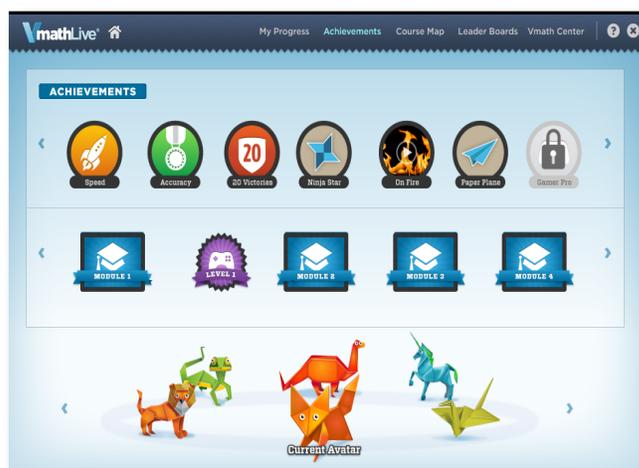
Problem-Solving Activity



Practice Activities



Students Compete



Student Rewards

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



KEY

- + = Pre- and Post-Test
- D = Differentiation



20- to 30-Minute Implementation*



* All models are approximations.
Example based on students scoring above 70 percent on Module Pre-test

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
DAY TWO: Lesson Structure	
Get Started	2–3 minutes
Work On Your Own	6–10 minutes
Check Up	12–17 minutes

45-Minute Implementation

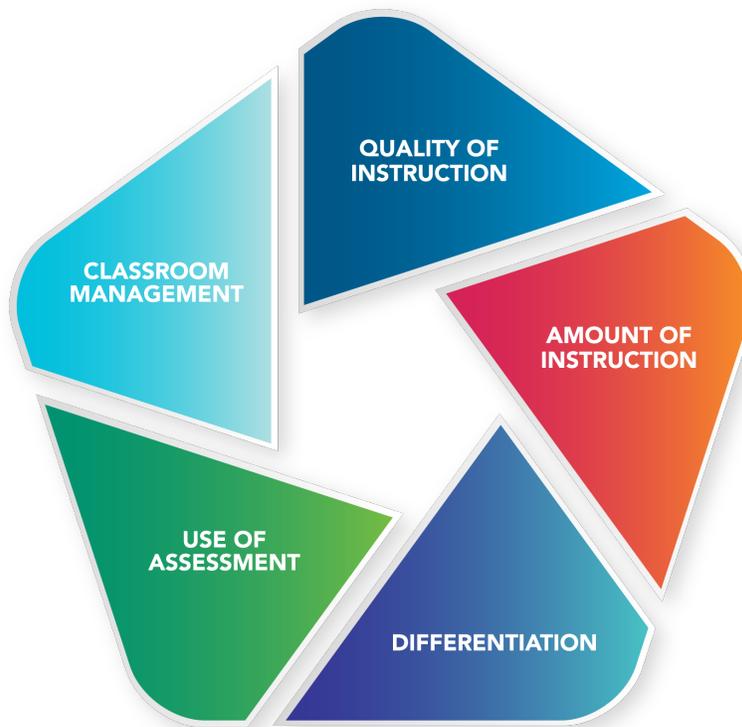
Vmath Lessons—1 Per Day

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	30 minutes
VmathLive or Reteach	15 minutes

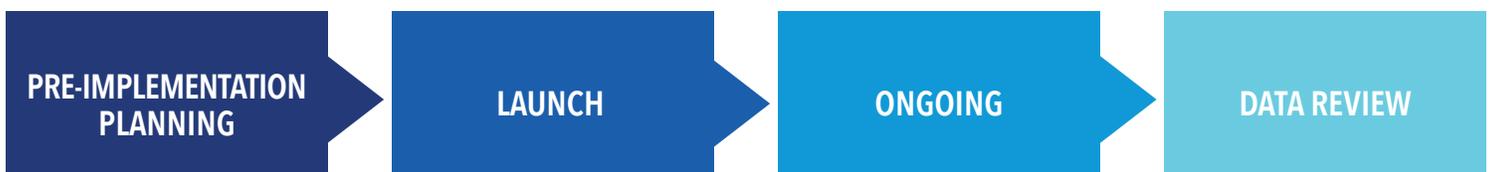
Implementation Plans to Meet your Needs

The highest level of educator support leads to increased student achievement. Firmly grounded in research, the Voyager Sopris Learning® approach is built around the “Five Keys to Success,” which form the foundation for strategy for planning, training, and ongoing support. Our team specializes in partnering with schools and districts to build **Vmath** implementation support plans to ensure all stakeholders are prepared to implement and sustain **Vmath** implementation.



FIVE KEYS TO SUCCESS

Key stages of Vmath implementation include:



Visit voyagersopris.com/vmath to review training options.

DOWNLOAD A FREE SAMPLE TODAY

Support Students in Reaching Rigorous Mathematics Standards

Vmath is a total solution for 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:

Visit voyagersopris.com/vmath to download a sample



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