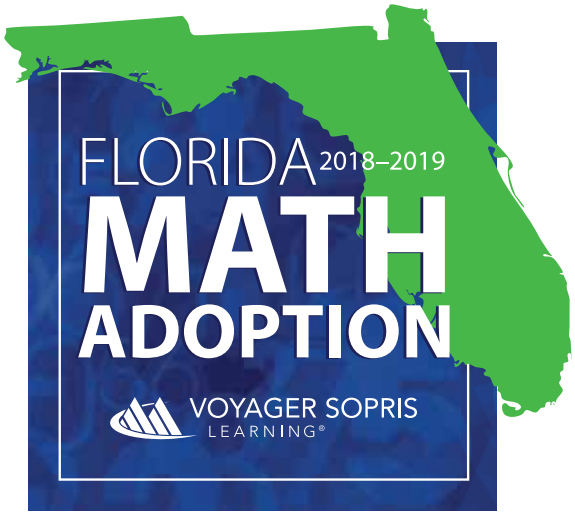
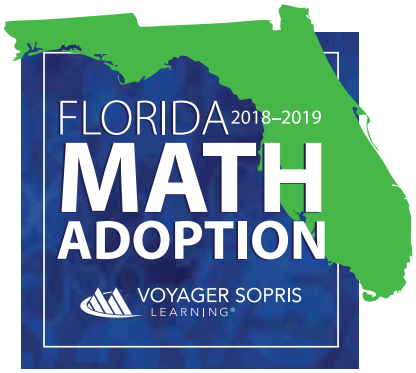


Vmath®

REVIEWER GUIDE

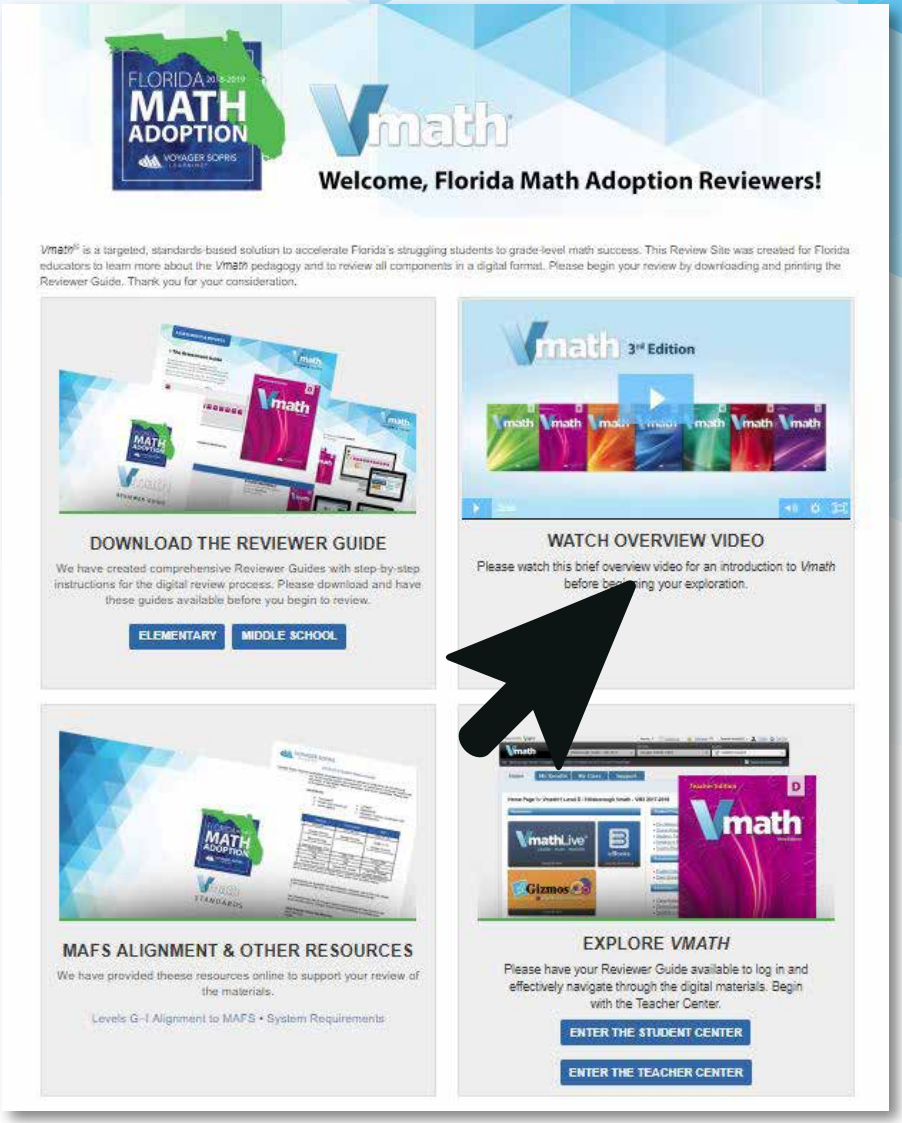
Get to Know Vmath®



Watch the *Vmath* Overview Video

1. ***Go to the Vmath Adoption Review site***

2. ***View the video*** on the *Vmath* Adoption Review site for an overview of the *Vmath* program and purpose.



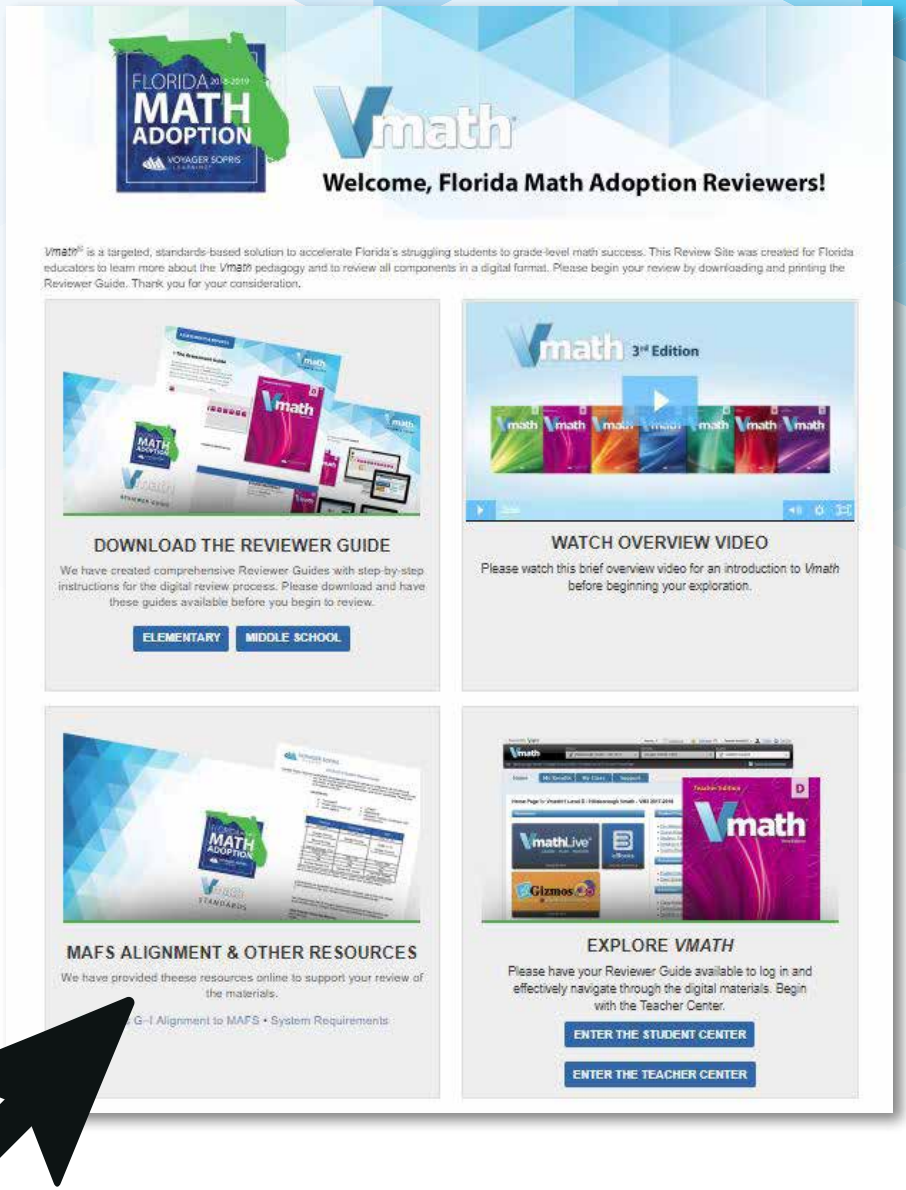
Review the Standards Alignment Document

Vmath® aligns to the MAFS and course standards.

Vmath's balanced, systematic approach creates successful learning experiences for students and develops confident, independent learners of mathematics. As an intervention system it includes explicit instruction and a range of targeted assessments to inform teachers and support data-driven decision making.

1. ***Download this document*** to view a complete list of MAFS and course standards covered in ***Vmath***.

2. During the Instructional Design section of this Reviewer Guide, **you will be directed to several examples of standards coverage** using our Interactive Standards Alignment tool located in the eBooks.



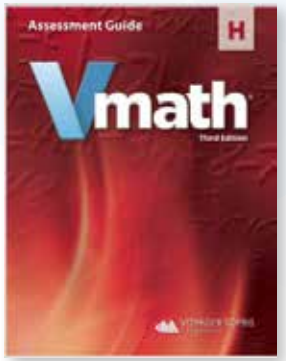
Vmath
REVIEWER GUIDE

Introduction to *Vmath*

This Reviewer Guide was created as a resource to be used when exploring *Vmath* **Level H**. *Vmath* is available as a blend of print materials and engaging technology.

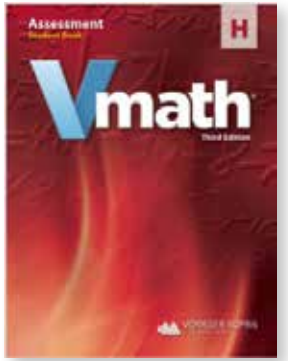
TEACHER MATERIALS

Vmath Teacher Edition (print and digital)
Additional assessment and reteach material (digital only)
VPORT Online Data Management
Access to *VmathLive*
Access to Gizmos



STUDENT MATERIALS

Student Books (print and digital)
Access to *VmathLive*
Access to Gizmos



Log in to the *Vmath* Teacher Center

1. To begin your review, ***login to the Teacher Center***. Enter the username and password provided to enter the *Vmath* Teacher Center site.

Please note Voyager Sopris Learning® offers single sign-on integrations to simplify accessibility and interoperate with pre-existing district technologies.

2. ***Enter the username and password below,*** to enter the *Vmath* Level H Teacher Center website.

Username: **Vmath6T14**
Password: **HeavyFloor3**

Teacher Center Overview

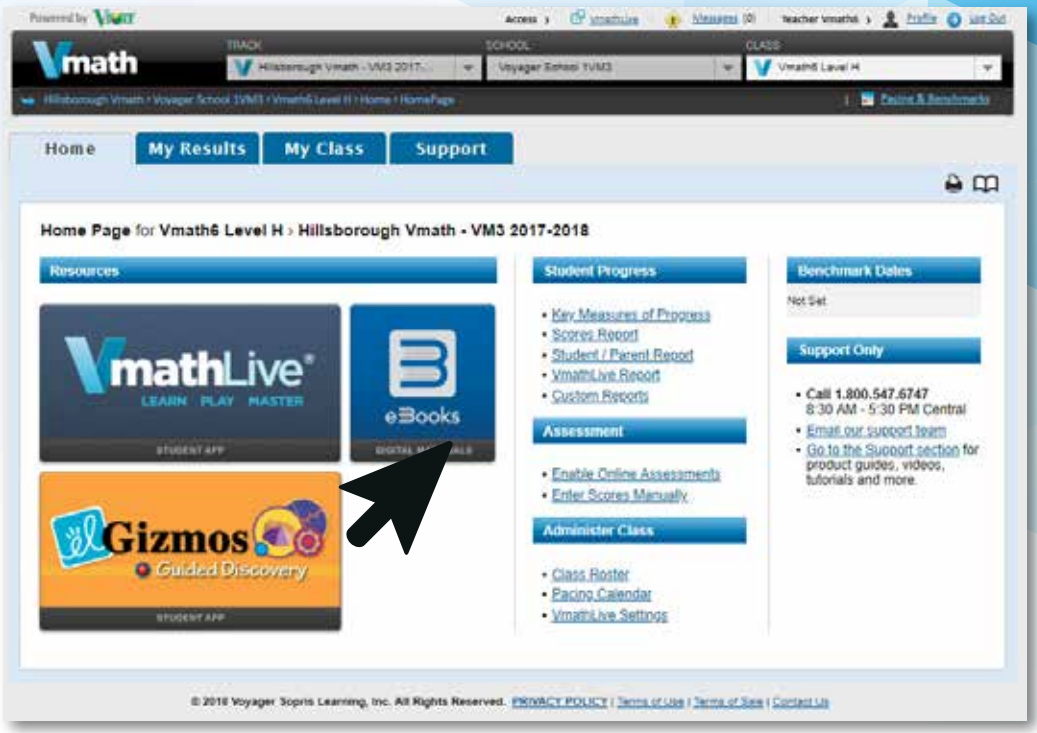
The *Vmath* Teacher Center provides access to all of the resources to support a successful implementation of *Vmath* instruction including:

1. **eBooks:** digital versions of the print and digital-only Vmath resources

2. ***VmathLive*:** provides a teacher view of the student technology

3. **Gizmos:** interactive simulations to reinforce conceptual knowledge

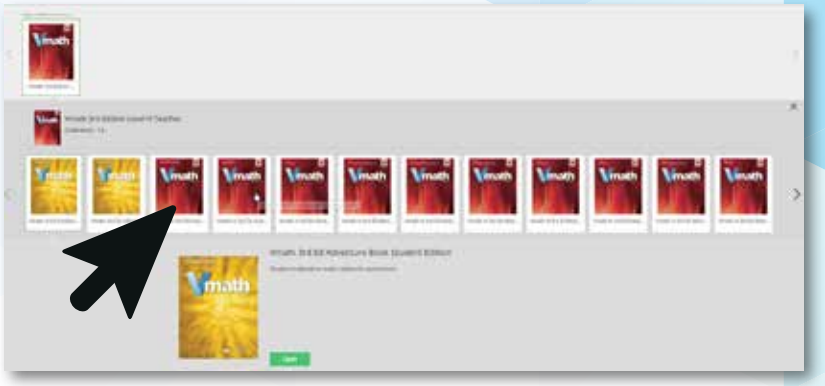
To continue your review of *Vmath* instructional components, click the eBook icon from the Teacher Center to enter the bookshelf.



NOTE: More detailed information for each section will be covered throughout of the Review Guide.

Access the Teacher Material eBooks

1. ***Click the eBooks icon*** from the Teacher Center to enter the bookshelf.



2. Use your cursor to scroll over each book to see the full title. Select the *Vmath* Level H Teacher Edition.

Click the green Open button to enter. The eBook has fully loaded once the toolbar appears across the top.

Teacher Materials:

The ***Vmath*** **Teacher Edition**, available in both print and digital format

Reteach Book, available in digital only format

The **Assessment Guide**, available in digital edition only

Vmath **Adventure Resource**, available in digital only format.

NOTE: Use the arrow on the right side of the screen to view all books on this shelf.

Instruction & Pedagogy

Vmath provides targeted math intervention and is specifically designed to reinforce grade level expectations. As a blended print and digital program—*Vmath* delivers essential content using strategies proven to accelerate and motivate at-risk students.

Let's take a look at *Vmath*'s unique instruction, pedagogy, and the supportive tools and resources that make it easy for teachers to implement and effective for students to reach grade level expectations.

Review the Teacher Edition Table of Contents

To explore the *Vmath* experience, turn to **Module 4, Expressions and Equations** in the Table of Contents and click the page number of the first lessons. (Page 129.) As you explore the lesson types notice the variety of ways *Vmath* addresses the standards associated with using variables to represent equalities.

eBook navigation: eBook tools that help you quickly navigate the book are found in the top left corner of the screen, in the bottom center of the screen, or the search bar in the upper right hand corner can be used.

Print navigation: You can choose to explore ***Vmath*** by using the Teacher Edition provided.

Table of Contents

Learn about the Four Types of Lessons in *Vmath*

To understand the instructional design of ***Vmath***, first become familiar with the **Table of Contents**. There are seven modules in each ***Vmath*** level. Module 1 is a foundation module acting as a review of concepts and skills from previously taught grades. Modules 2–7 focus on concepts and skills specific to the major work of the grade the level represents.

The **Table of Contents** includes several important features to highlight the instructional components.

Each module focuses on a specific topic or skills. Within in each module are a variety of different types of lessons.

- Lessons indicated by black font in the TOC refer to Vmath lessons.
- Lessons indicated by red font refer to Hands-On Guided Discovery Lessons.
- Lessons indicated by blue font refer to Gizmo Guided Discovery Lessons.
- Lessons indicated by purple font refer to Math Flash Lessons.

Explore the features of PreSkill Lesson

Turn to page 130.

Preskill lessons are lessons to help students revisit previously learned skills, or prerequisite skills, to the content to be taught in the module.

The **Preskill lessons** may be from previous modules or previous levels of *Vmath*. Teachers may choose to skip the Preskill lessons if data show that students have mastered the prerequisite skills needed.

Preskill lessons may take the form of any of the lesson types you will explore in your review.

As you begin to explore the eBook, notice the black circle icons. These are additional links to resources to help the teacher present the lesson.

Vmath REVIEWER GUIDE

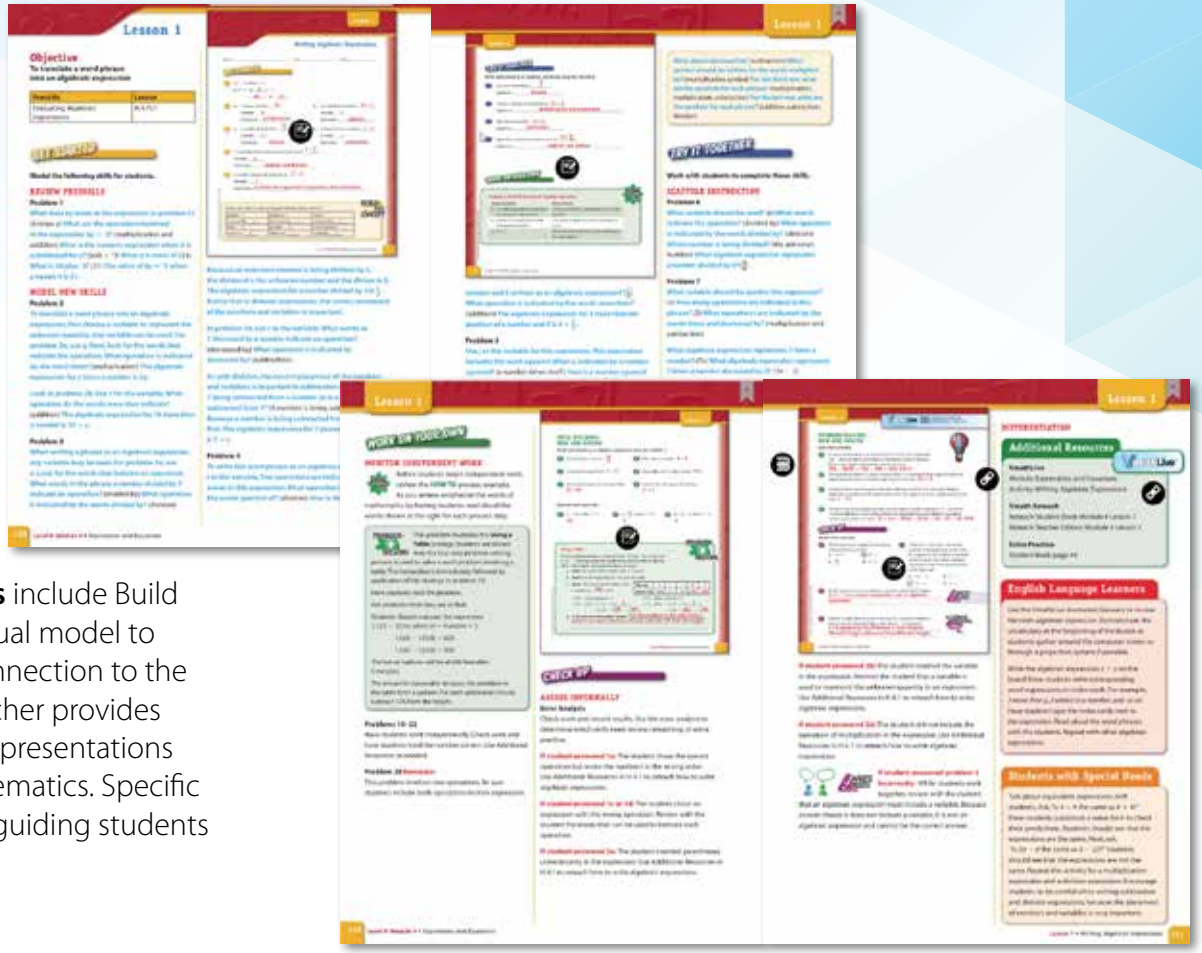
Explore the features of *Vmath* Lessons

Turn to page 138.

***Vmath* Lessons** contain four-step scaffolded instruction specific to concepts and skills related to grade-level expectations for both problem-solving and concept development.

***Vmath* Lessons** follow an instructional routine that includes four steps:

1. **Get Started**—teacher modeling to introduce new skills
2. **Try it Together**—Transition students from initial learning to independent practice
3. **Work on Your Own**—Apply new learning independently
4. **Check Up**—information assessments to check understanding analyze errors, and provide corrective feedback.



To promote conceptual understanding, ***Vmath* Lessons** include Build the Concept and How to boxes on the page using a visual model to help students develop a deeper understanding and connection to the mathematical concepts. Along with the model, the teacher provides explicit language to help students connect the visual representations to the standard symbolic representations used in mathematics. Specific ***Vmath* Lessons** also include problem-solving practice guiding students through the use of problem-solving strategies.

MAFS.7.EE.2.4

Explore the features of Hands On Guided Discovery Lessons

Turn to page 146.

Hands On Guided Discovery Lessons include activities that are specific to the use and application of manipulatives to help students develop deeper conceptual understanding.

Hands On Guided Discovery Lessons provide a systematic approach to using manipulatives for problem solving and conceptual understanding. Each Hands-On lesson follows a four-step instructional routine:

1. **Get Reading**—teacher modeling of new concepts.
2. **Discover**—teacher guides student learning
3. **Discover Box**—students use manipulatives to discover key concepts
4. Students engage in further exploration independently

Hands On Lessons use concrete manipulatives such as base-10 pieces and fraction strips to reinforce conceptual understanding.

MAFS.7.EE.2.3 and MAFS.7.EE.2.4

Explore the features of Gizmo Guided Discovery Lessons

Turn to page 156.

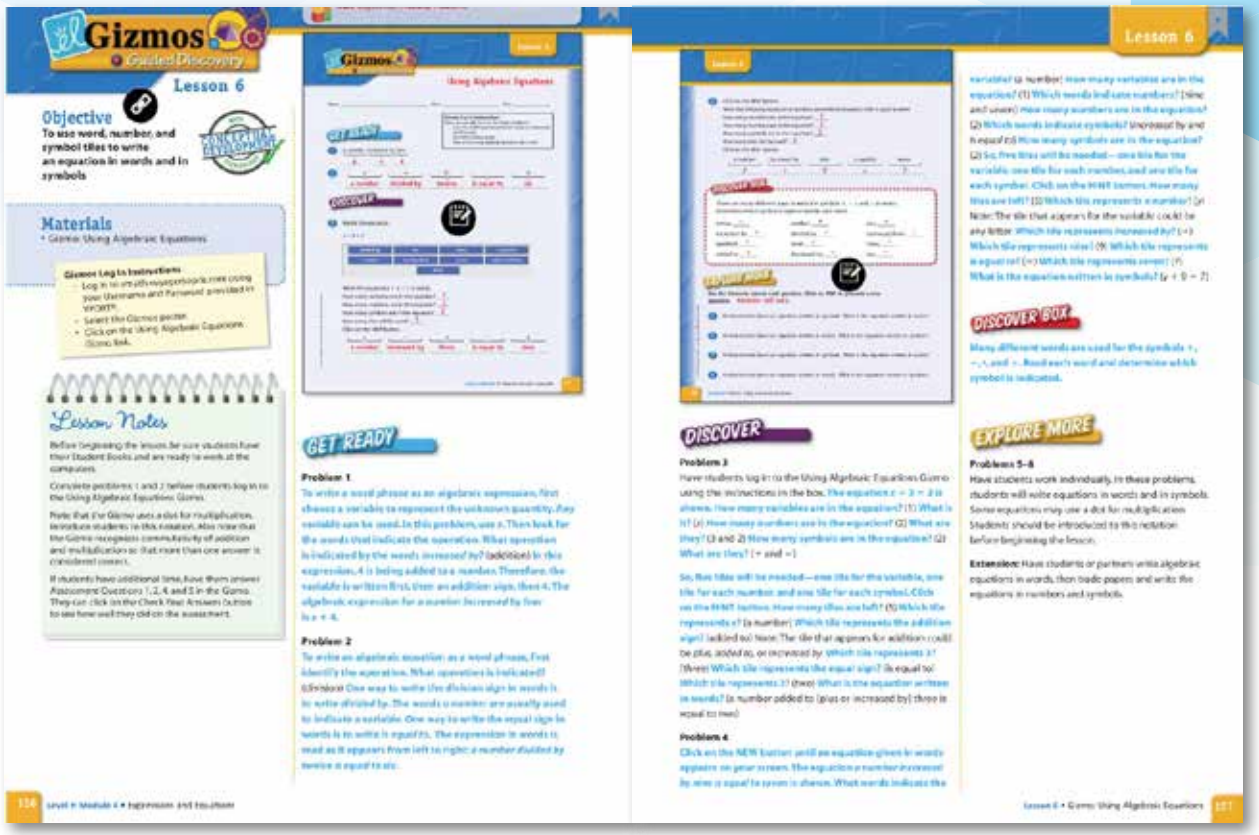
Gizmo Guided Discovery Lessons incorporate online digital manipulatives to help student develop deeper conceptual understanding.

Gizmo Guided Discovery Lessons are modular, interactive online math simulations for students. Gizmos provide explicit and systematic instruction to help teachers guide students as they use online manipulatives to understand abstract concepts.

There Gizmo lessons follows a four step instructional routine:

1. **Get Ready**—teacher and students review perquisite skills needed
2. **Discover**—teacher guides students to discover important math concepts.
3. **Discover Box**—students use online manipulatives to discover key concepts
4. **Explore More**—students engage in further exploration independently.

Gizmos integrate conceptual understanding using fun, easy to use simulations. Students can access Gizmos through their student center.



MAFS.7.EE.2.3 and MAFS.7.EE.2.4

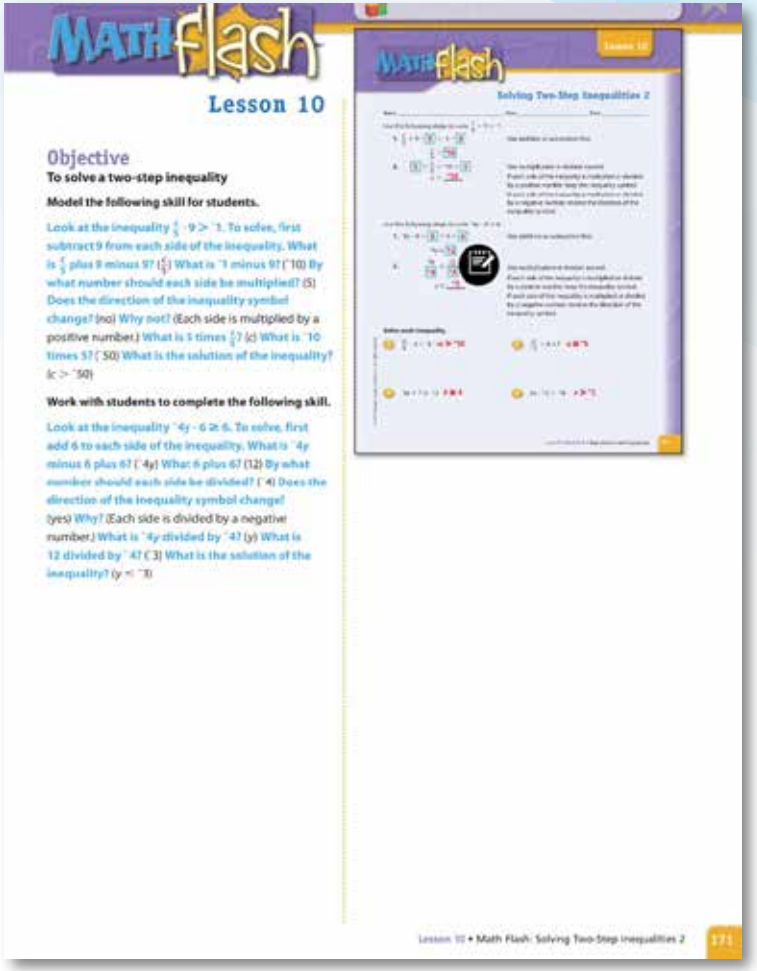
Explore the features of Math Flash Lessons

Turn to page 171.

Math Flash Lessons are brief 20-minute lessons that help students reinforce the skills needed to close gaps in instruction.

Math Flash Lessons reinforce the concepts and skills that are frequently tested providing students with proficiency practice.

Continue to learn more about the instruction of ***Vmath*** by exploring how ***Vmath*** helps students build problem solving skills. Turn to page 184 for an example.



MAFS.7.EE.2.4

Vmath
REVIEWER GUIDE

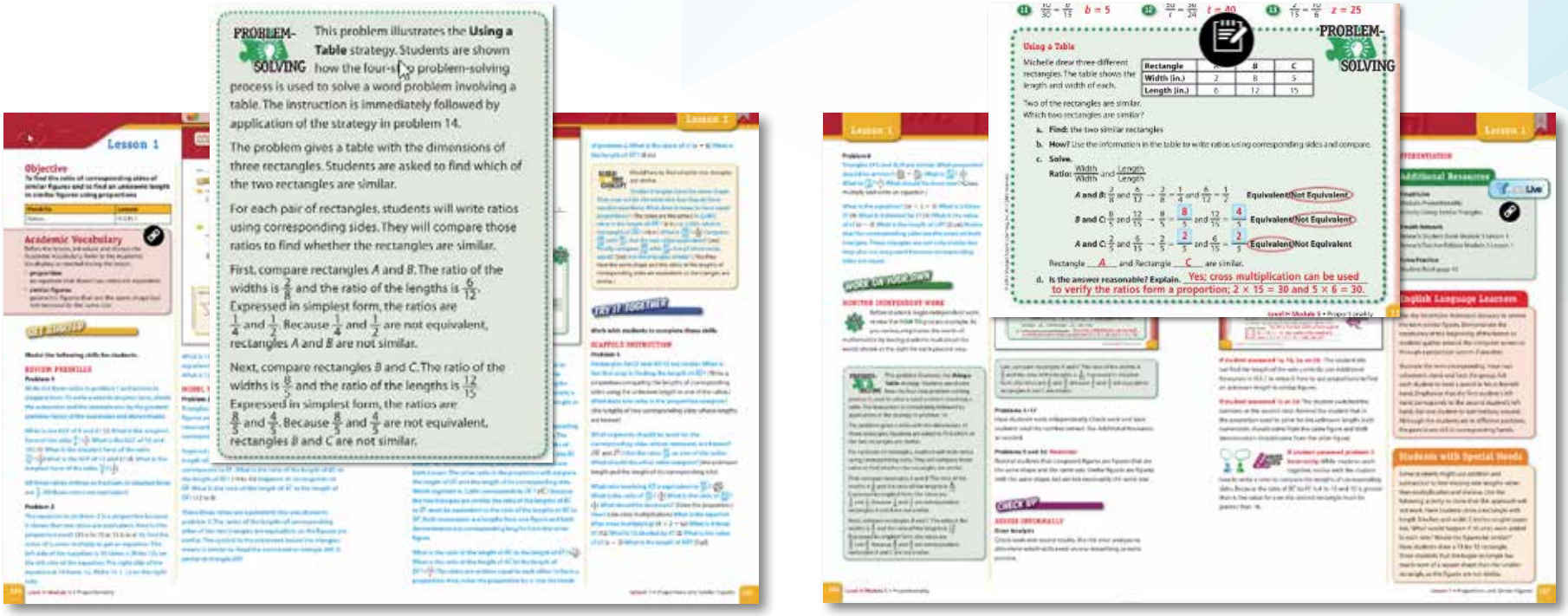
Vmath promotes Problem Solving

Turn to page 184–187.

Vmath provides specific lessons entirely devoted to teaching problem-solving strategies. These lessons, which integrate the instruction and practice in problem solving emphasize the four step process most often used in core math programs: Understand, Plan, Solve, and Look Back.

The problem solving lessons use the four step process as used in all *Vmath* lessons but also includes a problem solving box highlighting steps to reinforce the strategy and can be referred to as students apply the strategy on their own.

Vmath also builds conceptual understanding, turn to page 196 to begin your exploration.



MAFS.7.G.1.1

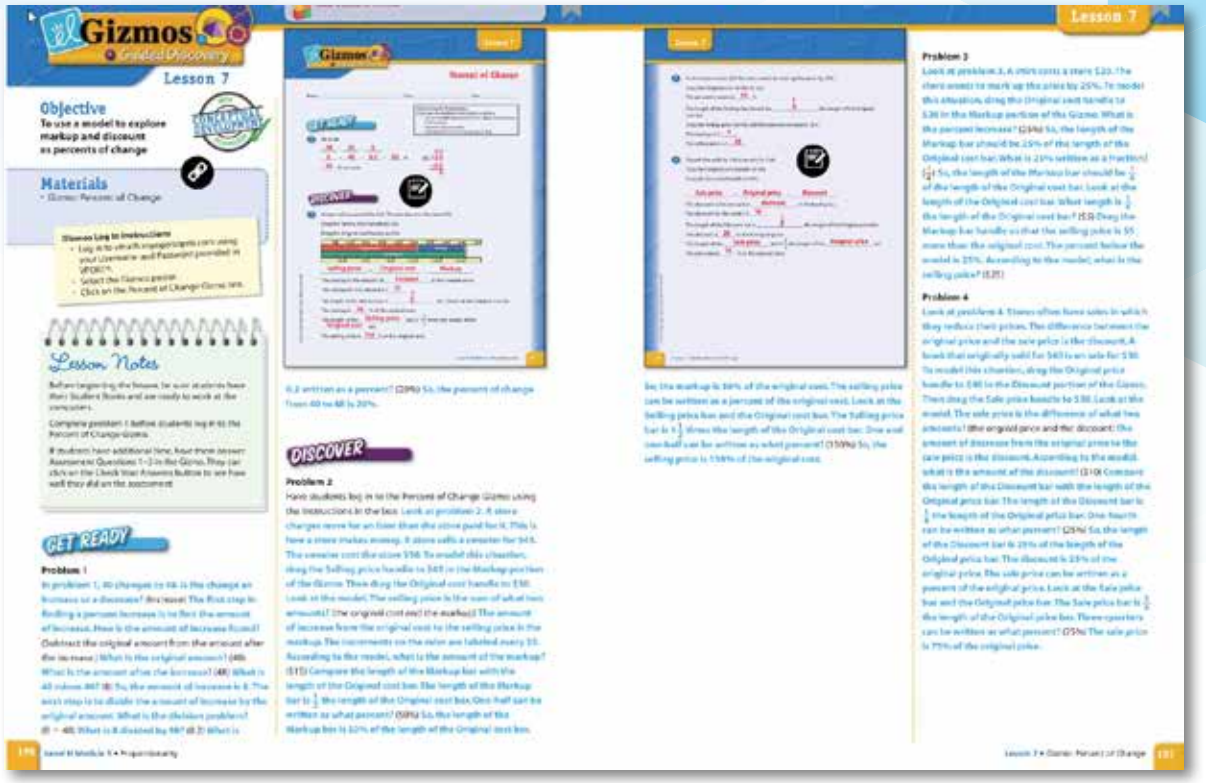
Vmath
REVIEWER GUIDE

Vmath builds Conceptual Understanding

Turn to page 196.

Gizmo lessons present important math concepts using several different tools to build conceptual understanding of important concepts.

Gizmos integrate conceptual understanding using fun, easy to use simulations. Students can access Gizmos through their student center.



MAFS.7.R.1.3

Vmath
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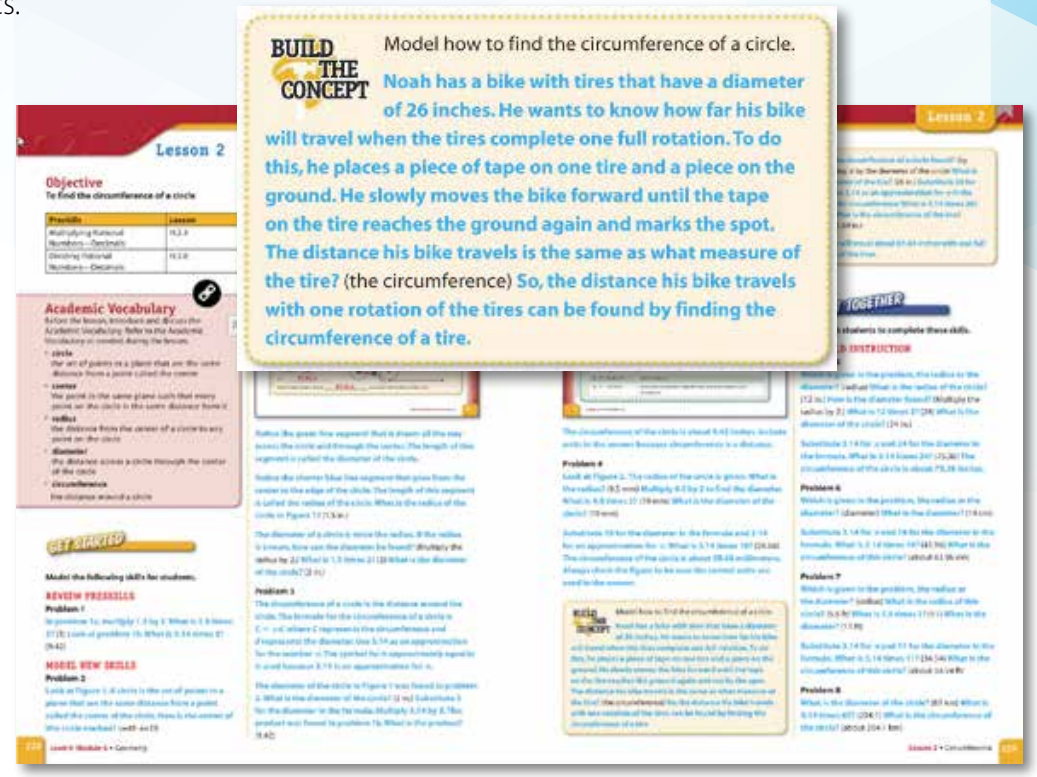
Vmath builds Conceptual Understanding

Turn to page 224.

Vmath lessons include Build the Concept and How to boxes on the page using a visual model to help students develop a deeper understanding and connection to the mathematical concepts. Along with the model, the teacher provides explicit language to help students connect the visual representations to the standard symbolic representations used in mathematics.

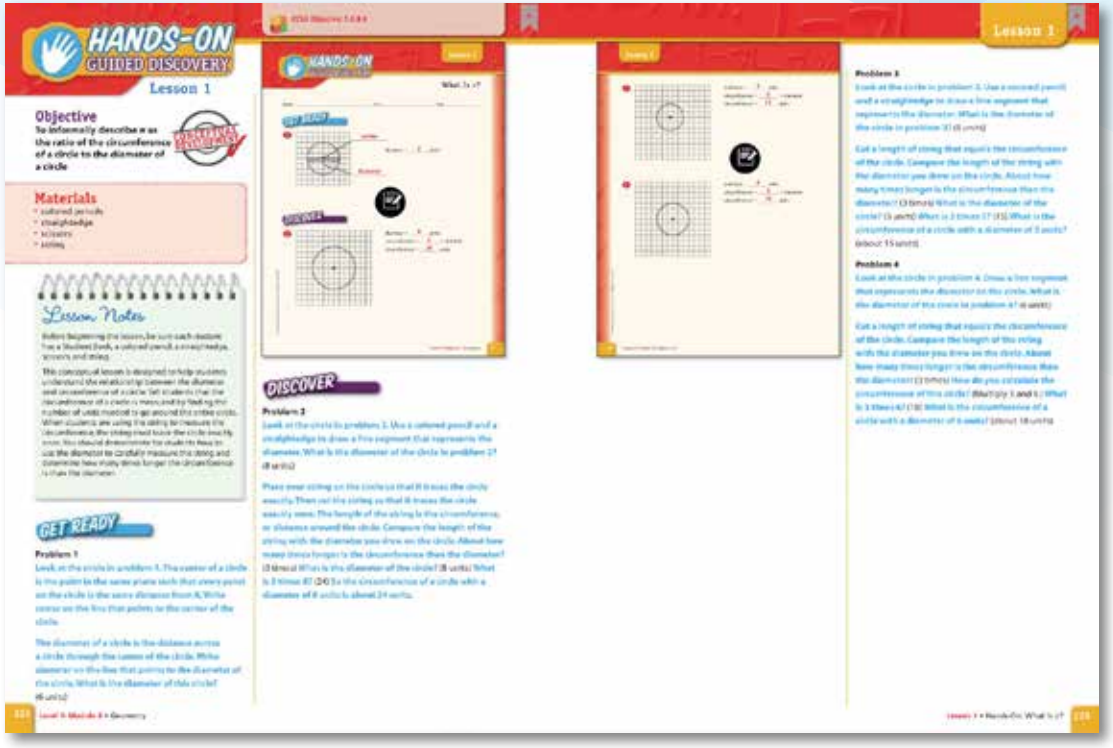


MAFS.7.G.2.4

Vmath builds Conceptual Understanding

Turn to page 228.

Hands-On Lessons use concrete manipulatives such as base-10 pieces and fraction strips to reinforce conceptual understanding.



MAFS.7.G.2.4

With its explicit and systematic approach, ***Vmath*** also provides students the opportunity to master the language of mathematics, receive scaffolded instruction, and apply their skills. Continue to explore these features now.

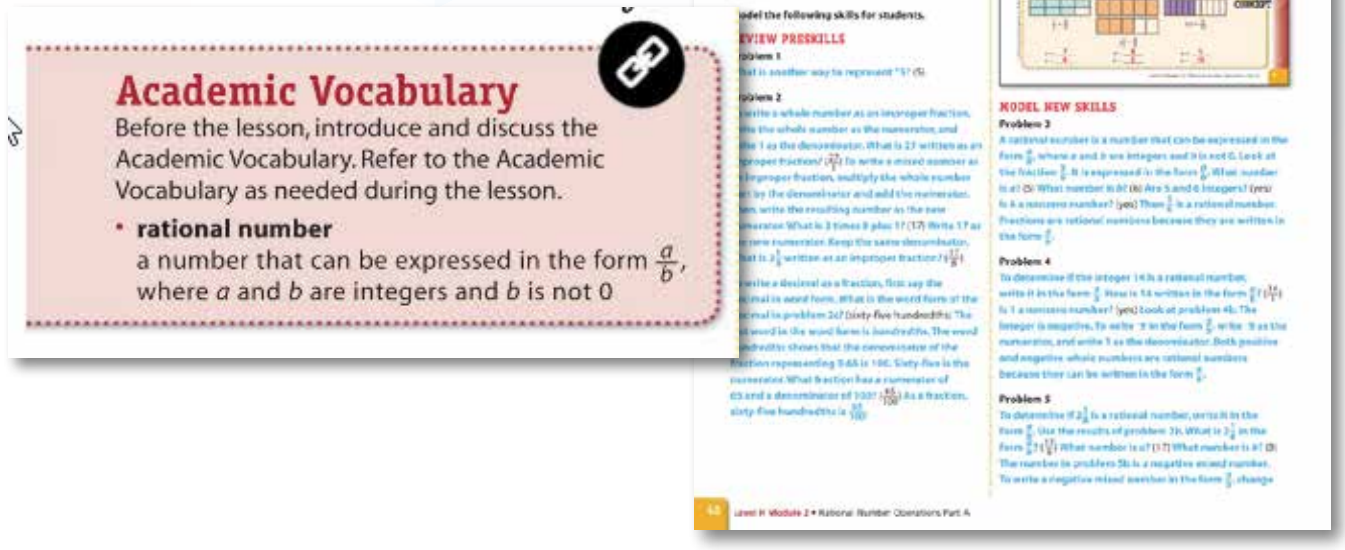
Vmath builds Vocabulary

Turn to page 48.

Students are provided with multiple exposures and the opportunity to acquire the language of mathematics as part of their skill development. Emphasis on learning the language of math enables English Language Learners and students struggling to succeed.

Vmath lessons reinforce the recursive academic vocabulary critical for student understanding. Teachers introduce the words at the start of each *Vmath* lesson and reinforce the specific language as they follow the explicit language in the lessons.

Click the "link" in the Academic vocabulary box on the TE page. This link is to the *VmathLive* glossary.



MAFS.7.NS.1.1

Vmath
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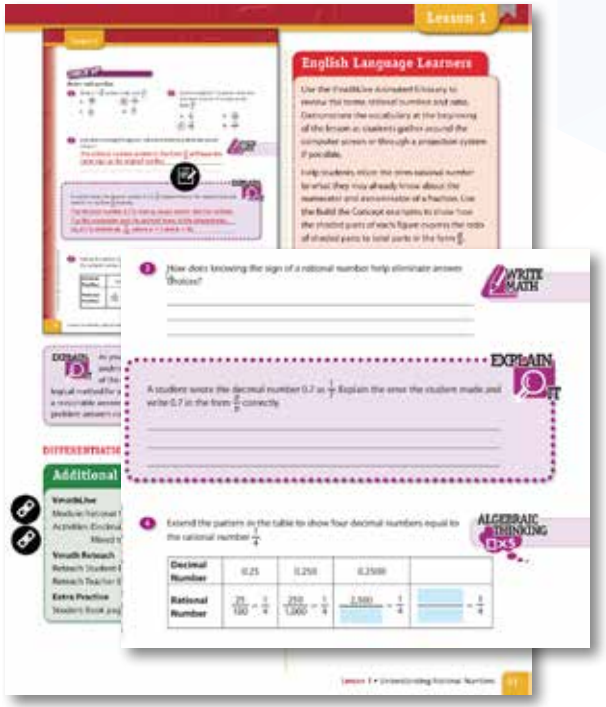
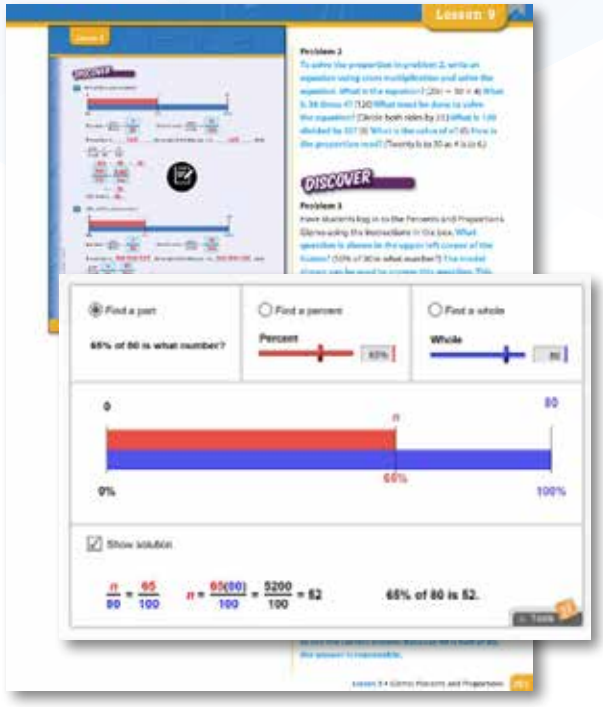
Vmath helps students Apply Skills

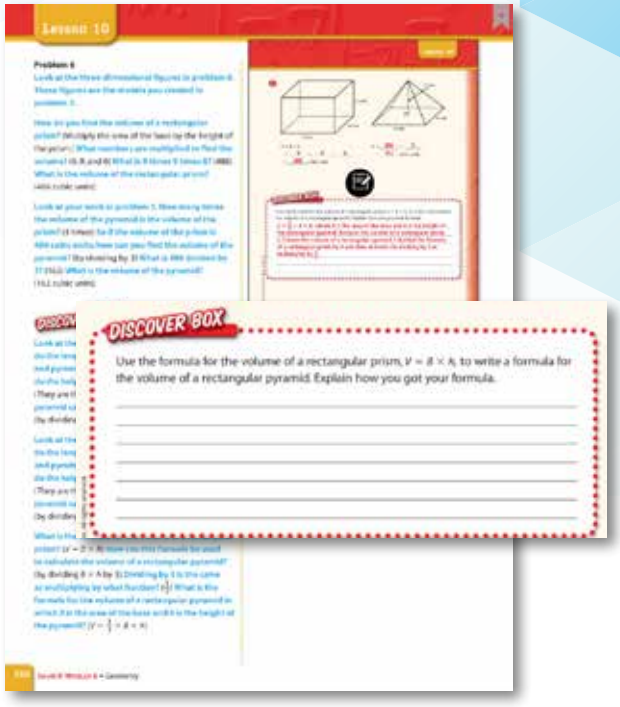
Several components of *Vmath* are geared to help students apply their learning. *Vmath* lessons include Critical Thinking, Explain It, Write Math or Algebraic Thinking. Hands On and Gizmo lessons also include Discover Boxes for writing about observations as concepts develop.



Page 50
MAFS.7.NS.1.1



Page 204
MAFS.7.RP.1.1



Page 258
MAFS.7.G.2.6

Each of these features are designed to promote reasoning and decision making in mathematics.

Vmath helps differentiate instruction for students

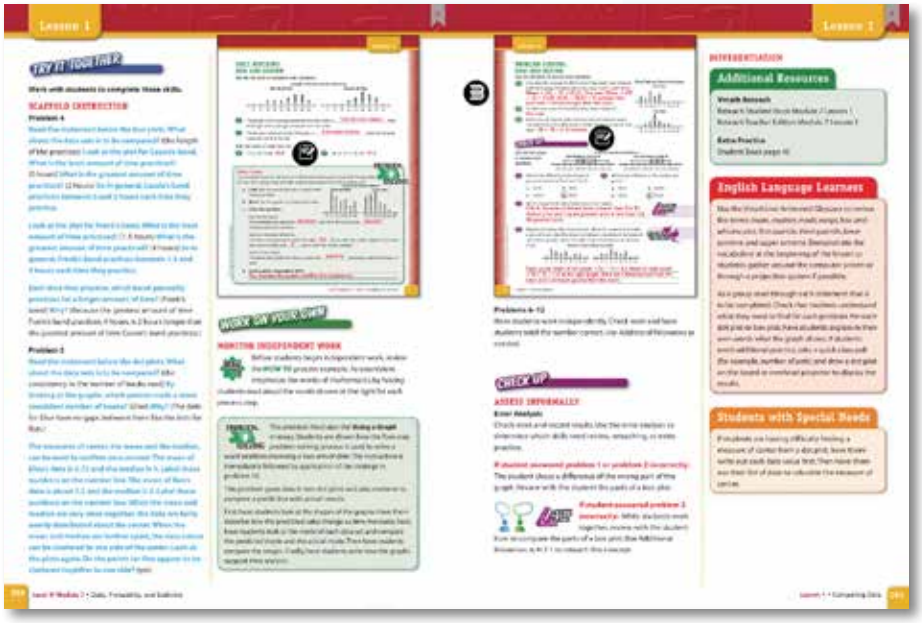
Turn to page 288.

Vmath provides three additional components to support teachers as they differentiate instruction.

Additional resources—lessons which can be used for practice, reteaching, or review

ELL Teaching Tips—lesson tips that provide specific activities that focus on increasing students' understanding of the language of math

Adaptations for students with Special Needs—teaching strategies in the lessons provide adaptations that support students requiring additional support



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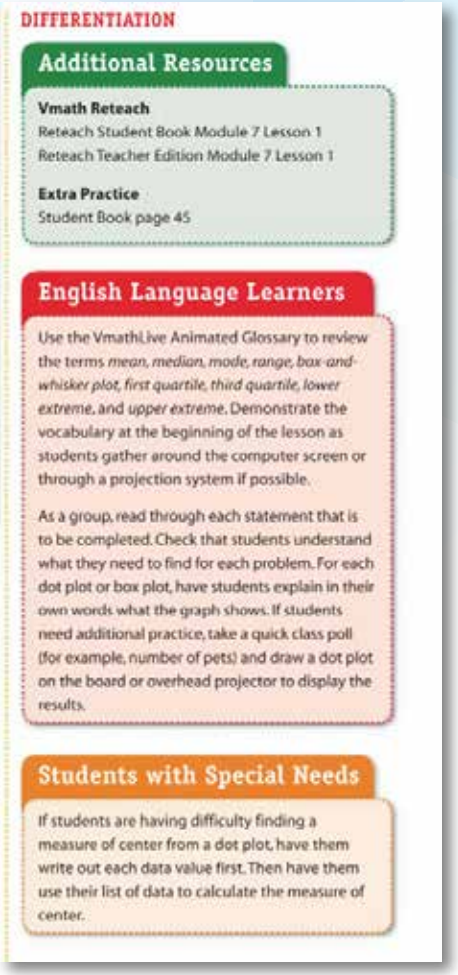


The differentiation activities provided in the ***Vmath*** lessons help actively engage students in the learning process as well as provide suggestions to the teacher regarding the use of additional concepts to help connect students to the skill being taught.

Assessments & Reports

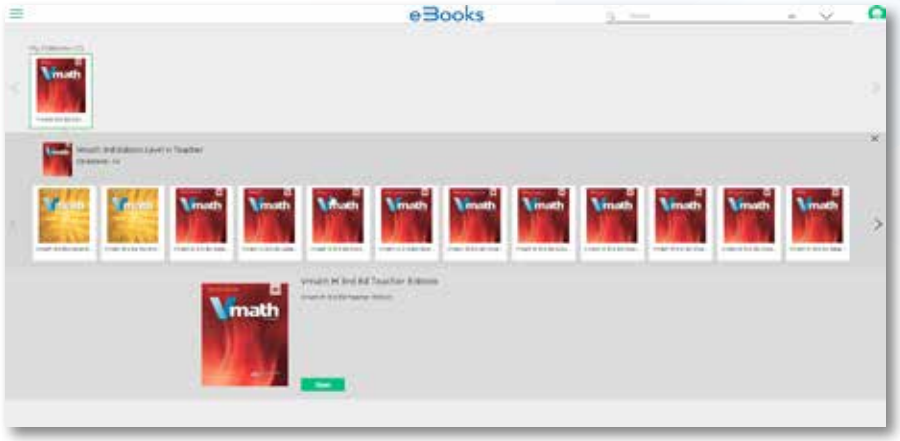
The ***Vmath*** assessment system allows teacher to accurately measure student progress and proficiency at every stage of instruction. With a variety of reports available, teachers and administrators have actionable data that can be used to drive instructional decisions, communicate to parents and ensure students meet their goals.

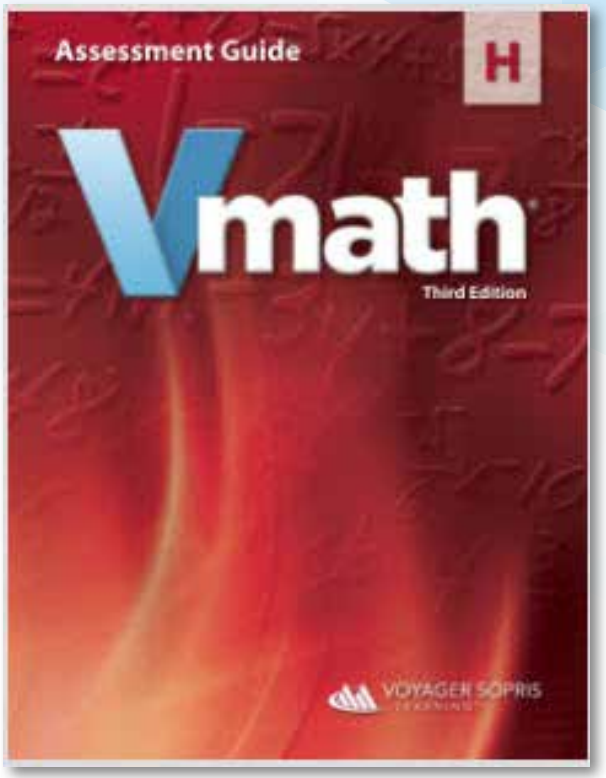
Take a look at each assessment, reports teachers can generate, and overall purpose of monitoring learning that occurs in ***Vmath***.

The Assessment TE eBook

The Assessment Guide provides directions for administering and scoring all *Vmath* assessments as well as guidelines for using the data for instructional planning.

Return to the eBook Shelf. Select the Assessment Guide Teacher Edition. Explore the components of this guide.

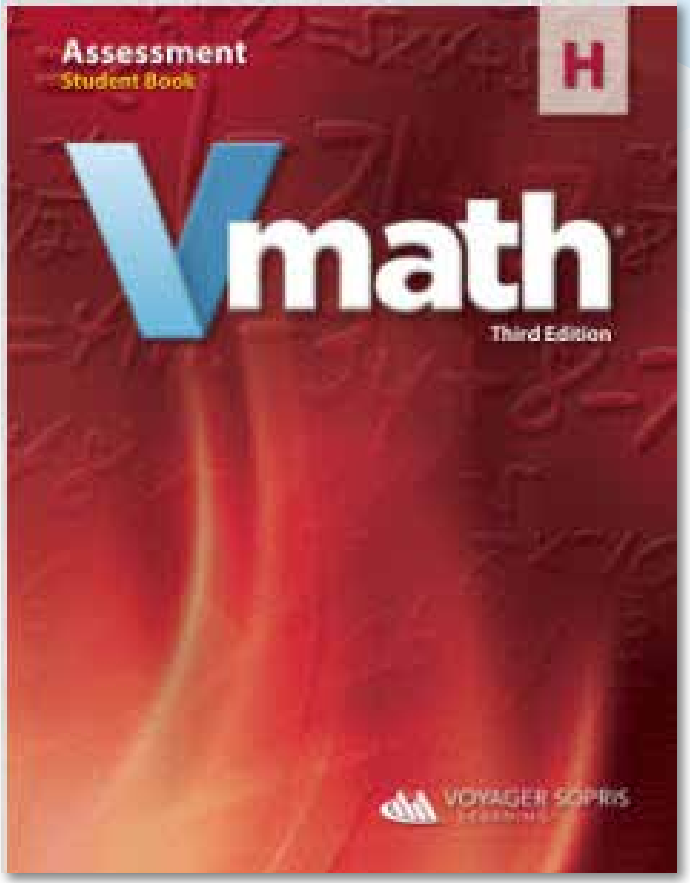




Note: **The Assessment Guide is only available in eBook format.**

The Assessment Guide Student Edition

The Assessment Guide student edition provides the blackline masters which can be printed directly from the eBook. These assessments are also available to be administered and scored online.



Note: The Assessment Guide student edition is only available in eBook format.

Vmath
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Initial and Final Assessments

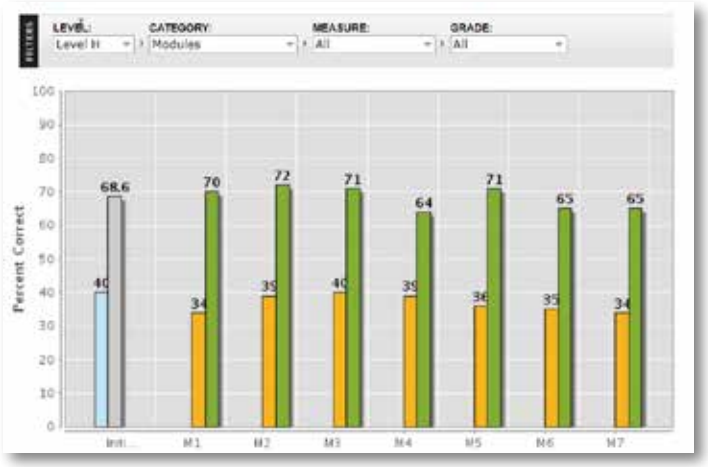
Turn to page 1 to review the Initial Assessment.

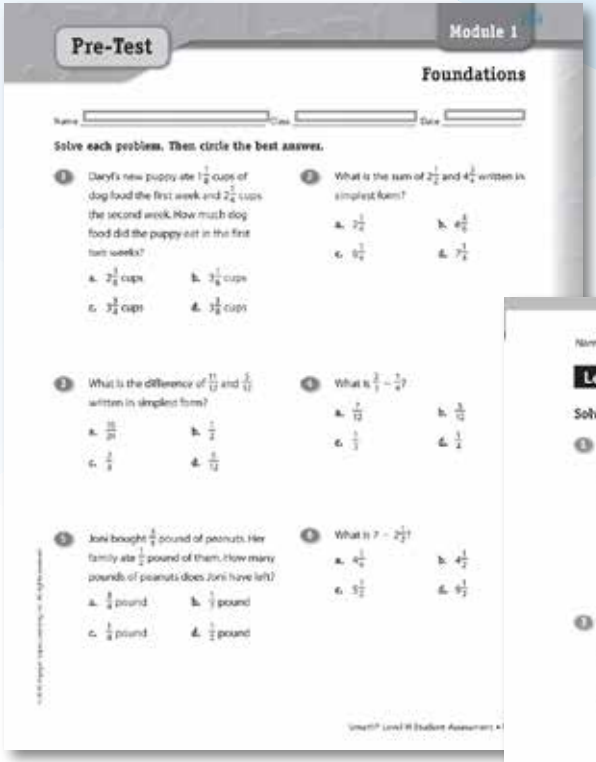
Turn to page 69 to review the Final Assessment.

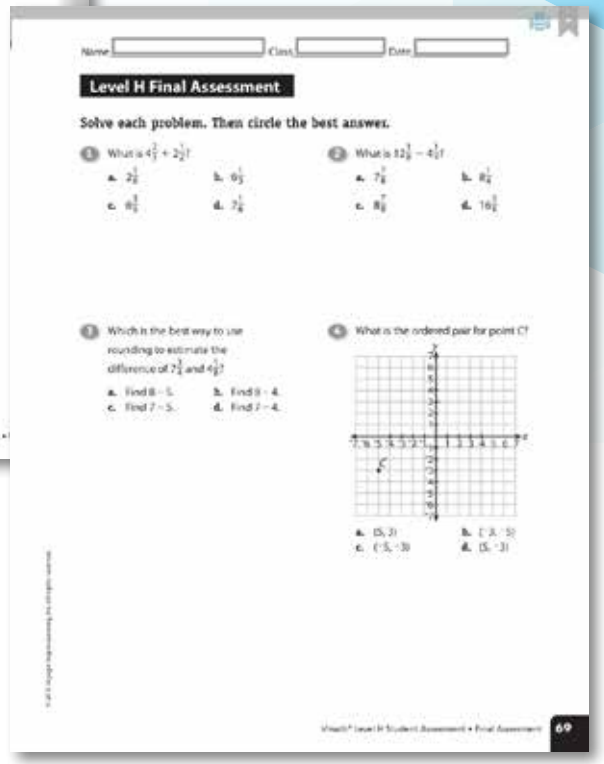
Administered to the entire class at the beginning of ***Vmath*** instruction, the initial assessment highlights student instructional strengths and weaknesses.

Administered at the completion of a ***Vmath*** level, the final assessment can be used to document student growth and measures intervention results.

Pre-Tests measure students prior knowledge, Post-Test measures student growth of module specific content.







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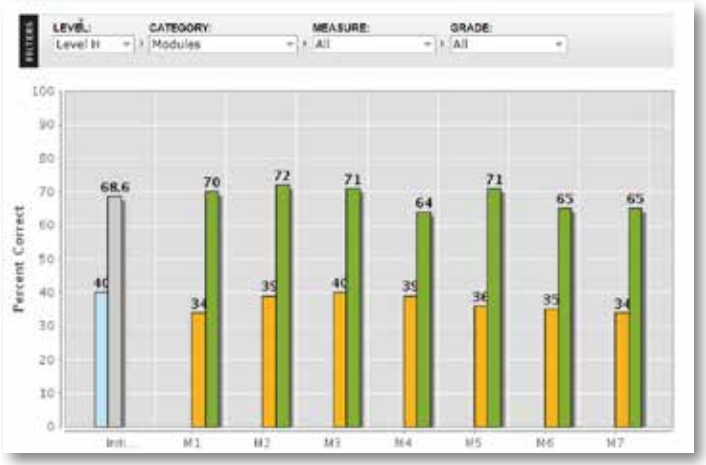
Module Pre/Post Tests

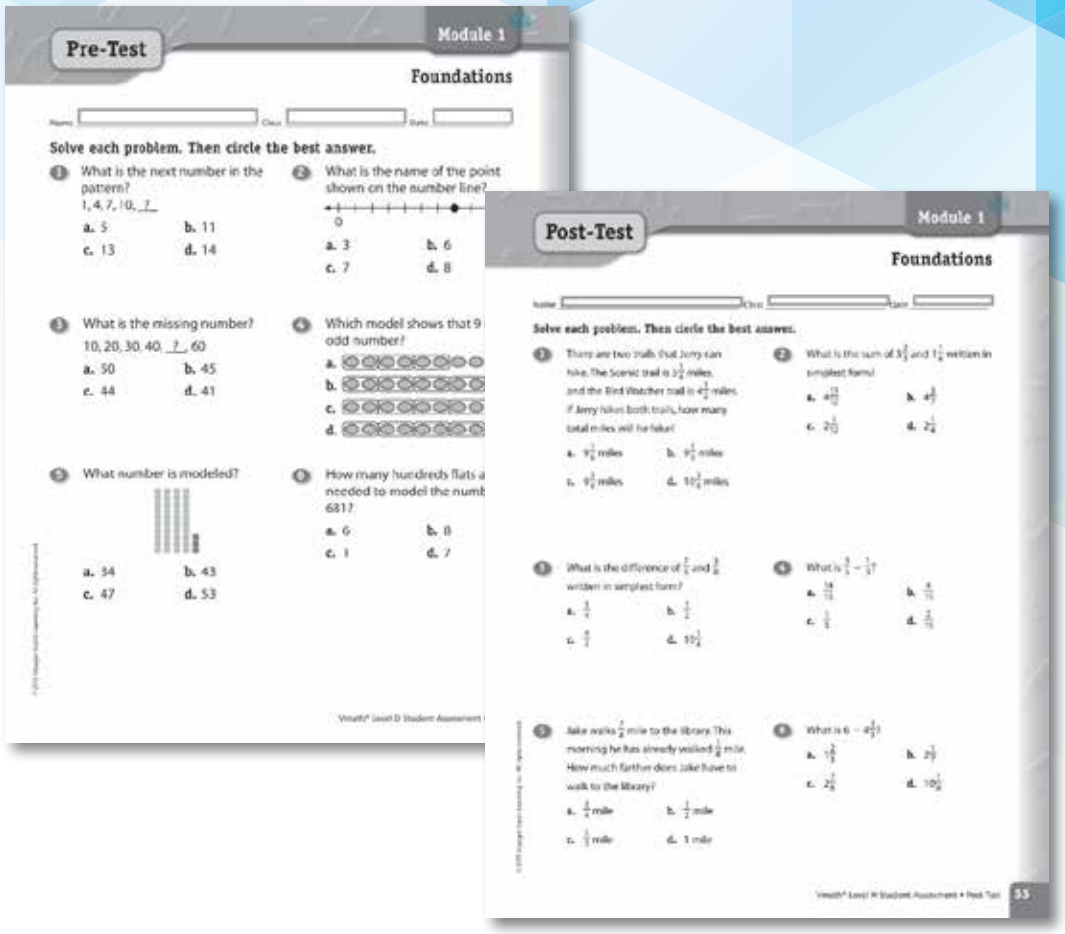
Turn to page 43 to see the Module 1 Pre-Test.

Turn to page 55 to review the Module 1 Post-Test.

Pre Tests and Post Tests are module specific assessments used to monitor student growth and mastery of the concepts, skills and strategies taught in each module.

Results can be used to determine instructional needs of students. If a student scores <70% on a pre-test, the PL Lessons are taught. If a student scores >70% teaching would begin with Lesson 3. Similarly post-test results can be used to determine reteaching and practice needed.




Pre-Test
Module 1
Foundations
Solve each problem. Then circle the best answer.
What is the next number in the pattern?
1, 4, 7, 10, 7
a. 5 b. 11
c. 13 d. 14
What is the name of the point shown on the number line?
0
a. 3 b. 6
c. 7 d. 8
What is the missing number?
10, 20, 30, 40, 7, 60
a. 50 b. 45
c. 44 d. 41
Which model shows that 9 odd number?
a.
b.
c.
d.
What number is modeled?
a. 34 b. 43
c. 47 d. 53
How many hundreds flats a needed to model the numb 681?
a. 6 b. 8
c. 1 d. 7
Post-Test
Module 1
Foundations
Solve each problem. Then circle the best answer.
What is the sum of $3\frac{1}{3}$ and $1\frac{1}{3}$ written in simplest form?
What is the difference of $\frac{7}{8}$ and $\frac{3}{8}$ written in simplest form?
What is $\frac{3}{4} - \frac{1}{4}$?
Jake walks $\frac{7}{8}$ mile to the library. This morning he has already walked $\frac{3}{8}$ mile. How much farther does Jake have to walk to the library?
What is $6 - 4\frac{2}{3}$?
55

Vmath REVIEWER GUIDE

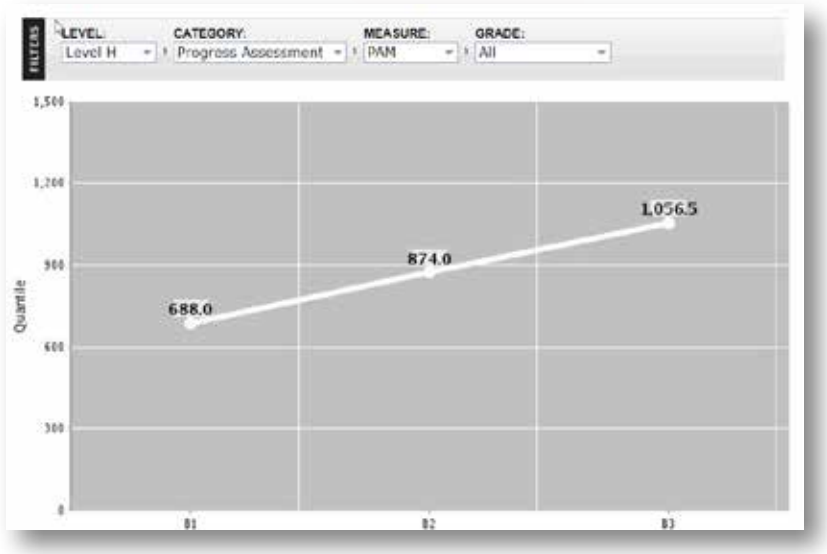
Progress Assessments

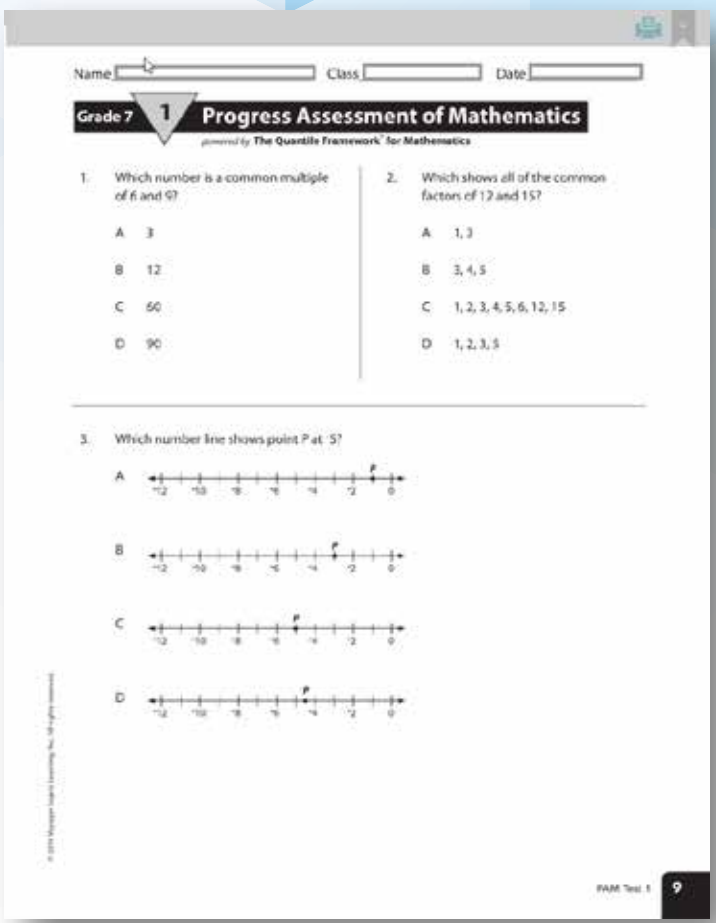
Turn to page 9 to review the Progress Assessment.

Progress Assessments powered by the Quantile Framework for Mathematics are curriculum-based measures administered 3 times per year.

When teachers know a student's math achievement level and the level of difficulty of mathematical task, they are able to adjust instruction to meet a student's readiness to learn. The Quantile provided for each student after completing the Progress Assessment provides information regarding:

- Skills a student has mastered
- Skills on which a student needs further instruction
- Skills a student is ready to learn




Name Class Date

Grade 7 1 Progress Assessment of Mathematics

powered by The Quantile Framework® for Mathematics

1. Which number is a common multiple of 6 and 9?
   A 3
   B 12
   C 60
   D 90

2. Which shows all of the common factors of 12 and 15?
   A 1, 3
   B 3, 4, 5
   C 1, 2, 3, 4, 5, 6, 12, 15
   D 1, 2, 3, 5

3. Which number line shows point P at -5?
   A
   B
   C
   D

PAM Test 1 9

Student Technology

Technology plays an integral role in teaching, but it must be used with purpose to be effective. Students in ***Vmath*** have access to robust digital resources designed to enrich instruction, extend learning, and engage students in and out of the classroom.

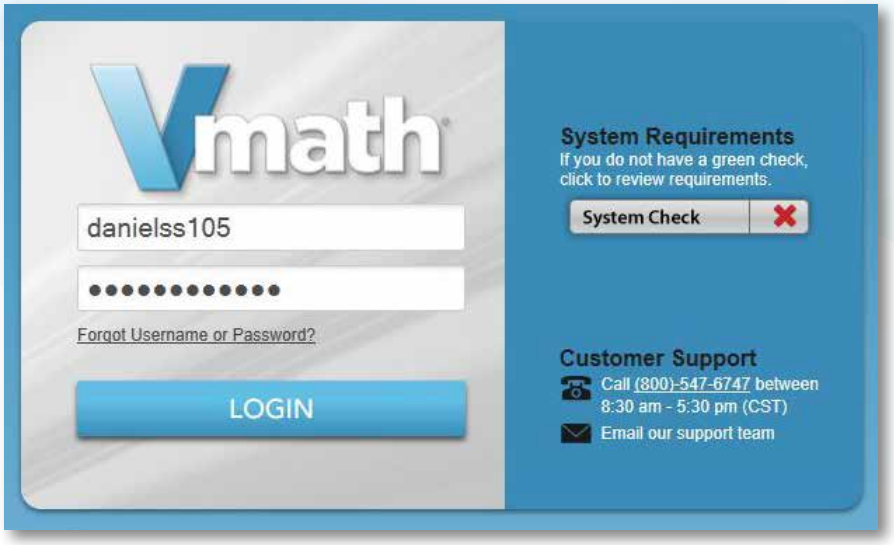
Take a look at how technology enhances the *Vmath* experience wherever and whenever students need it.

Log in to the *Vmath* Student Center

Username and password: Level D Student

Username: **danielss105**

Password: **chiefstreet0**



Student Center Overview

The Student Center is the landing page from which students can access all digital materials and resources used in *Vmath* including:

1. **Student Assignments**
2. **eBooks**
3. ***VmathLive***
4. **Gizmos**

VmathLive Technology

What is *VmathLive*?

VmathLive is an online, independent-learning component that helps students apply math skills in a fun, interactive environment available anytime and anywhere on any device.

Accessing *VmathLive*:

From the Student Center:
Click on the *VmathLive* section.
Click on Course Map in the toolbar to review units.
Students will gain access to the Go Learn and Go Play components from the homepage.

VmathLive

GO LEARN

In ***VmathLive's*** Go Learn component, students complete module activities in computational practice and problem solving.

Moving from conceptual understanding to application is difficult for students. ***VmathLive*** provides an opportunity for students to practice and master problem-solving skills.

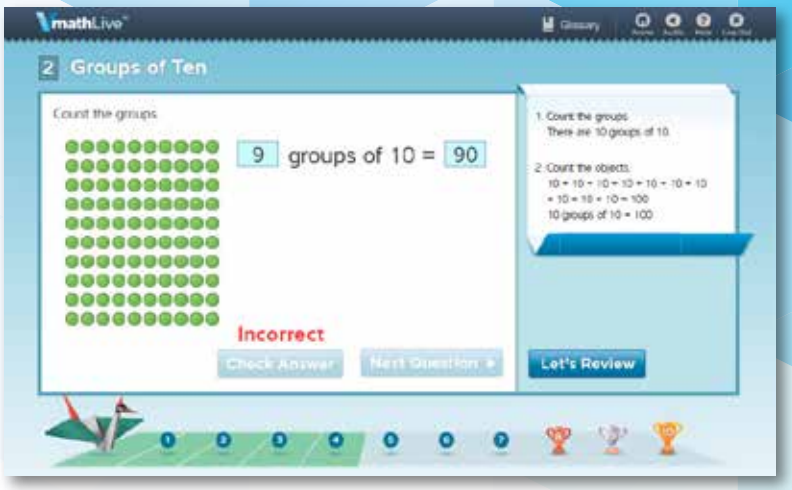
VmathLive

SCAFFOLDED INSTRUCTION

VmathLive offers several levels of scaffolded support for students as they work in Go Learn.

VmathLive promotes accuracy and fluency by encouraging students to think about their answer choices. If students get stuck, they can access a hint to see the problem unfold. If students continue to struggle, they have access to "Let's Review," a short video providing guided instruction on a related problem.

Note for Spanish-Speaking Students:
Let's Review videos are available in Spanish and English.



Students get immediate corrective feedback.

Let's Review video provides additional instruction.

VmathLive Design:
GO PLAY COMPETITION COMPONENT

Go Play provides students an opportunity to practice their fluency and mental math skills in one-minute competition games.

Fluency and accuracy of mathematical skills are critical for student success in math. Using a fun, interactive, and safe platform, students can practice these skills and engage in competitive play. Games range in topics from operations of whole numbers to order of operations. Students can play against the computer, a friend also enrolled in *VmathLive*, or in a game with others as assigned by *VmathLive*.

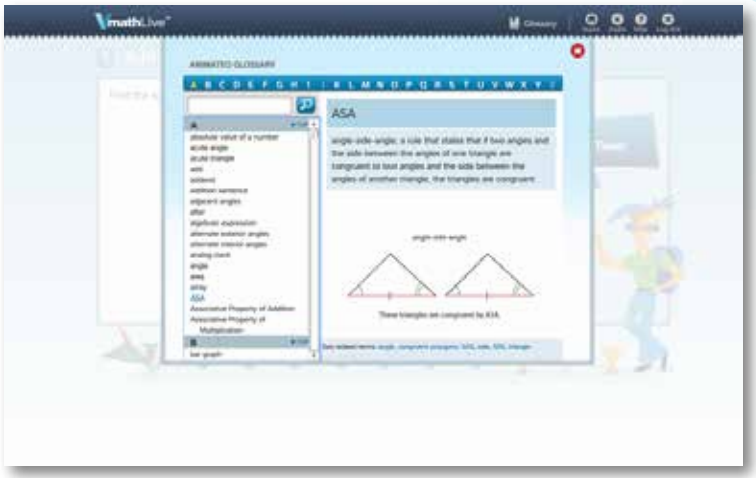
VmathLive Design:
ANIMATED GLOSSARY

The Animated Glossary is embedded in the Go Learn components and contains approximately 400 common math vocabulary terms and definitions. Students can select a term from the alphabetical list or type it into the search function.

The language of math is often challenging and confusing. *VmathLive's* Animated Glossary allows students to hear the pronunciation and definition of a term while watching an animated representation of the term.

Note for Spanish-Speaking Students:
Animated Glossary allows students to view written and hear audio definitions of terms in Spanish.

Link to the Animated Glossary in the toolbar of the Go Play component.



Search by name of term or from the alphabetized list of terms.

Vmath REVIEWER GUIDE

VmathLive Support Tools:
ENGAGEMENT FEATURES

What are the Student Engagement features?
From the *VmathLive* homepage, students have a variety of ways to stay motivated and engaged.

Avatars: Students earn an avatar when they achieve mastery in a module. *VmathLive* avatars are origami creatures students can decorate and personalize using tokens they have earned. Each avatar includes instructions about building the avatar on their own with paper.

My Progress: This page details how the student is doing in the program for both the Go Learn and Go Play components.

Achievements: This page contains every accomplishment a student has achieved—trophies and badges earned, certificates awarded, and avatars collected.

Leaderboard: This board allows students to see their rank in their school, districts, and nationally.

My Progress page shows current and past activity.

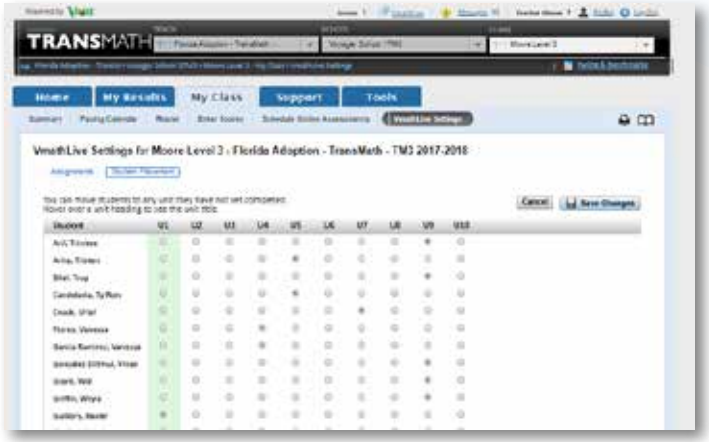
See all trophies and awards in Achievements.

All avatars can be customized by students.

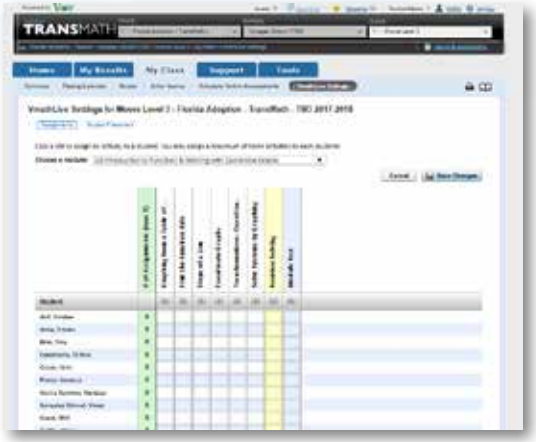
Vmath
REVIEWER GUIDE

VmathLive Support Tools:
DIFFERENTIATION CAPABILITIES

How can *VmathLive* be used as a differentiation tool?
Teachers can place students in specific modules of instruction to reinforce or extend learning. Teachers also can assign specific activities within a unit.



Choosing which module a student needs.



Assigning specific activities is easy.

Students must complete assignments before having full access.

Gizmos

Gizmos are a series of online manipulatives that correspond to the Gizmo lessons.

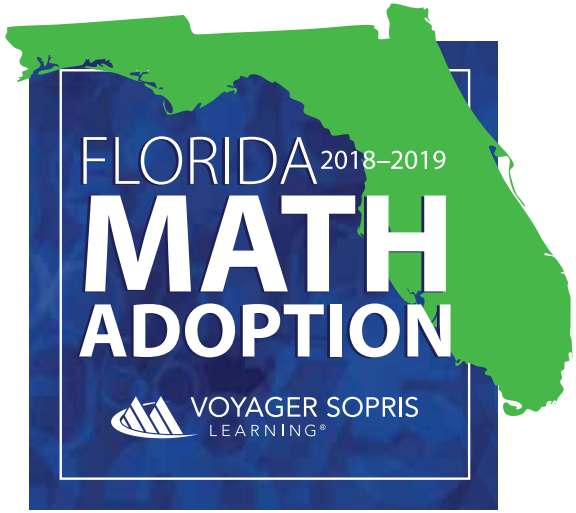
Return to the student center, select the Gizmo box, and then choose a Gizmo from the menu.

Accessing Gizmos:

From the Student Center:

Click on the Gizmo section.

Click on any Gizmo to explore the interaction and mathematical simulations.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