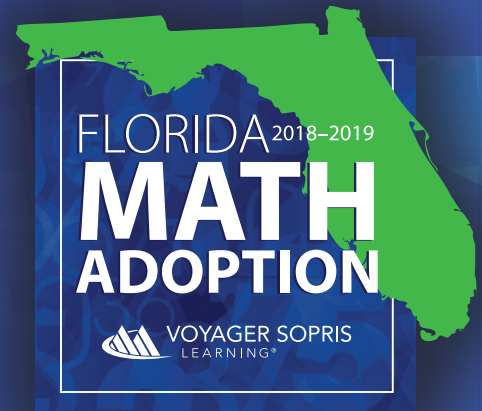


Third Edition

TRANSMATH[®]

Creating a *new* path to algebra.



A Unique Approach to Algebra Readiness

What is *TransMath*?

Do you have middle school students who always struggle with math? Year after year, they fall behind their peers? Does a traditional core program provide what they need to succeed?

Is it time for a change?

TransMath® Third Edition is different. While *TransMath* incorporates the components found in every prealgebra program, it differs from traditional cores because it is **designed to address the needs of struggling math students** and teachers who serve them.

With its unique instructional approach and robust offering of differentiation tools, *TransMath* delivers rigorous, standards-based instruction in prealgebra while also addressing the **foundational skills needed to fill knowledge gaps**.

TransMath is an intensive solution for your students who need **more than the average core** to achieve the same goal as their peers—successful entry into algebra.



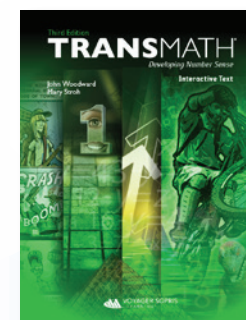
Comprehensive Standards-Based Instruction

Unlike other math curricula, *TransMath* scaffolds standards instruction to meet the needs of students below grade-level. To fill foundational gaps, teachers first focus on the mastery of prerequisite skills. As instruction increases in complexity and rigor, students have the background knowledge and instructional momentum to successfully master each standard.

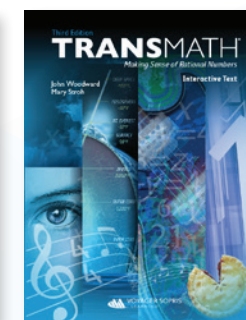
The chart on the right shows the sequence of skills needed to master an Expressions and Equations standard. Each unit topic in *TransMath* Level 3 builds upon the last until instruction shifts directly to mastering the grade-level standards.

TransMath: Leveled to Meet the Need of Each Student

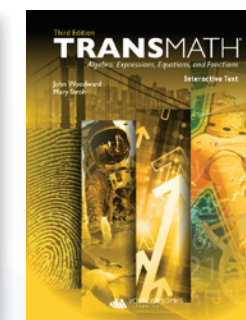
Some of your students may need a more intensive scope and sequence than what is covered in *TransMath* Level 3 prealgebra. **Levels 1 and 2 dig deeper into the fundamental and basic skills of mathematics** and accelerate students toward grade level. No matter where your middle school students are, *TransMath* takes them where they need to be.



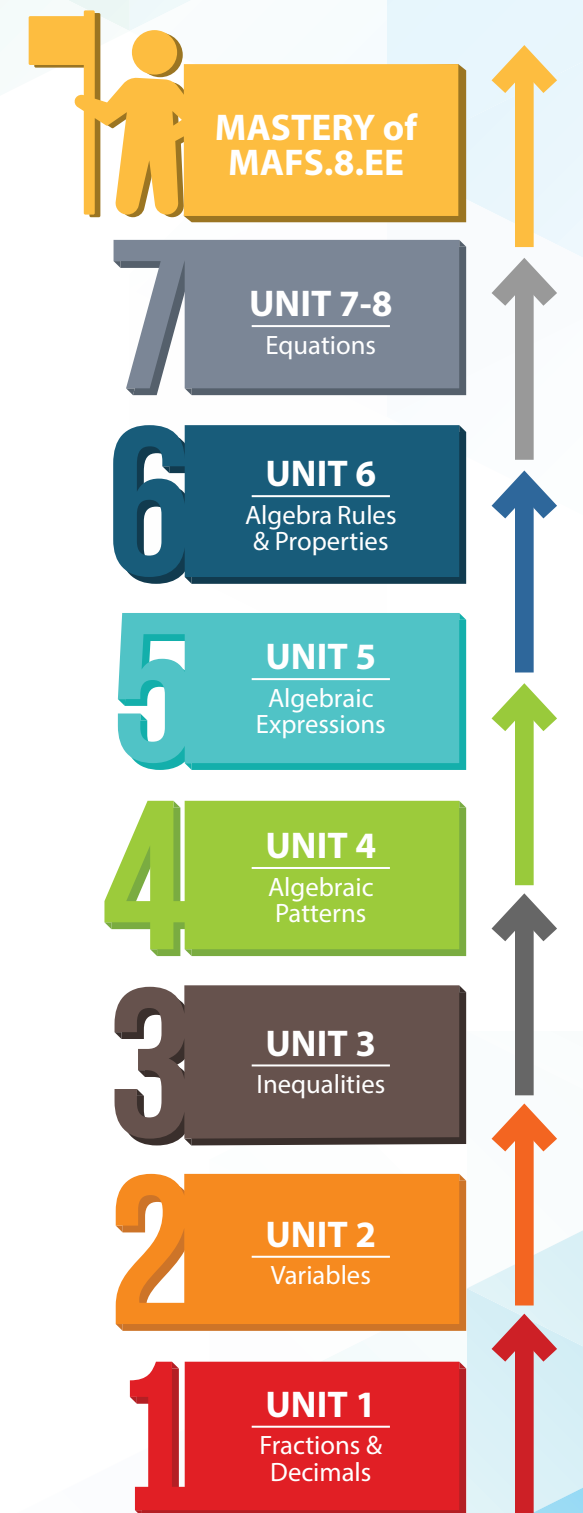
Level 1



Level 2



Level 3



Expressions & Equations Standards: Progression to Mastery in TransMath Level 3



TRANSMATH MEETS
ESSA STRONG
EVIDENCE CRITERIA

Designed to be Different: Why TransMath Works

Most students who struggle in traditional math programs experience difficulties in two key areas: **foundational skills** and **conceptual understanding**.

Foundational skills and **conceptual understanding** are essential for success in prealgebra and any preexisting instructional gaps will only grow more severe if not addressed. Most traditional core programs assume these skills already are mastered, but *TransMath* goes the extra step to ensure students have these skills before moving forward.

TransMath's dual-topic approach separates each day's lesson into two crucial instructional topics: **Building Number Concepts** and **Problem Solving**

This approach avoids the risks of cognitive overload that many students experience from dense, singularly focused, daily instruction. The dual-topic approach in each lesson deconstructs learning into smaller, achievable components and engages students with two distinct topics and instructional formats.

Evidence of Effectiveness: TransMath Gets Results

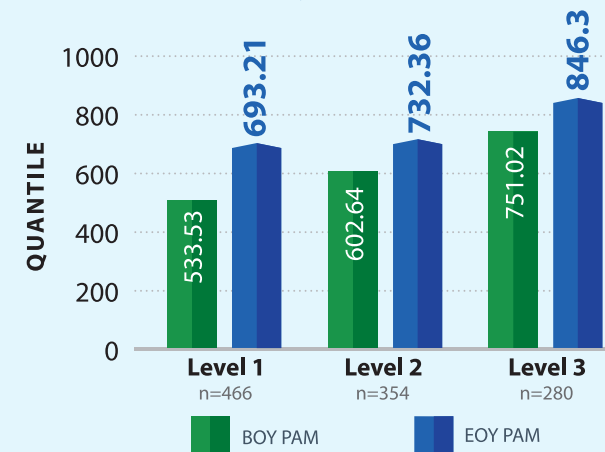
TransMath is designed for students who consistently struggle with mathematics and need more than the average core. It is critical that these students make significant gains to close the achievement gap and excel at grade level. With *TransMath's* dual-topic approach, students are making multiyear gains in one school year. Year after year, *TransMath* is **changing lives and making a difference**.

Dual-Topic Approach

Building Number Concepts: This topic focuses on math concepts and foundational skills. Guided by explicit instruction, teachers use visual models and digital manipulatives to teach abstract math concepts by demonstrating how they relate to real-world, concrete concepts.

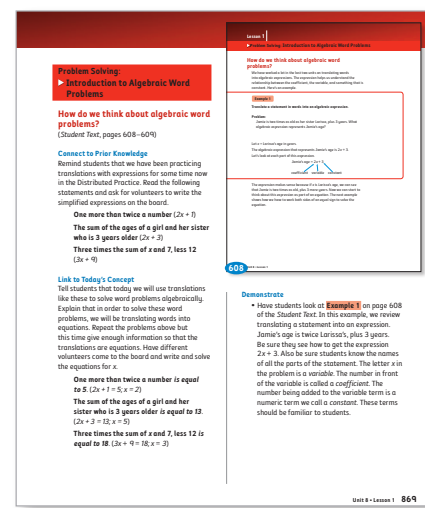
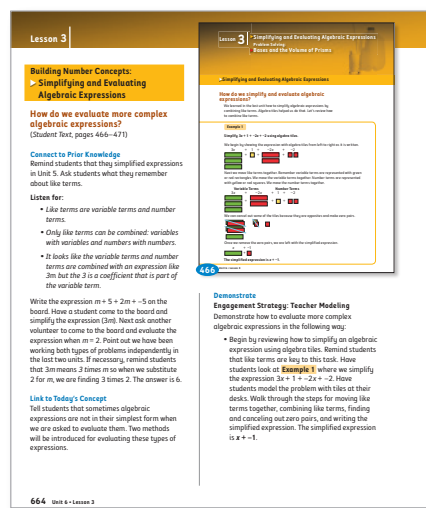
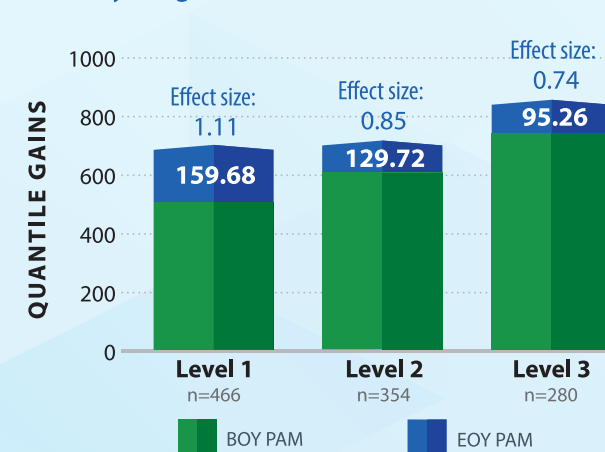
Problem Solving: This topic focuses on applying previously learned concepts and developing the critical-thinking skills needed to solve multistep, complex math problems. Alternating between teacher modeling, independent work, and interactive small groups, students learn, practice, and master rigorous, grade-level skills and standards.

TransMath Third Edition 2015–2016 Results
by Level



Quantile[®] score gains show more than three grade levels of growth in a single school year. *TransMath* makes the difference.

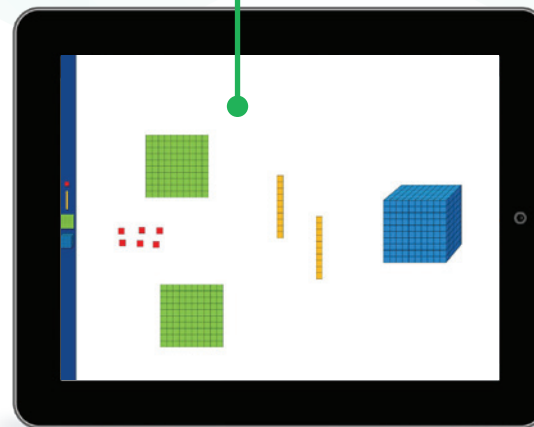
TransMath Third Edition 2015–2016 Results
by Program Level with Additional Detail



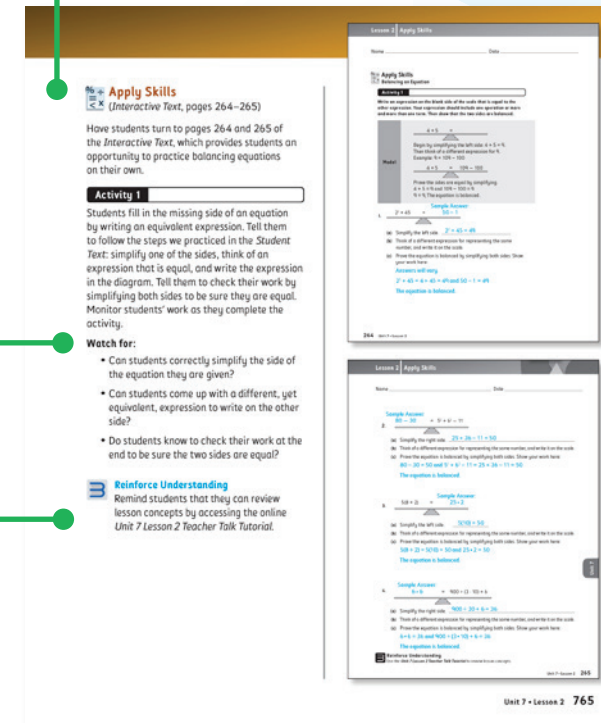
Instruction at a Glance: Let's take a Look

Logical, consistent lesson design keeps students moving toward conceptual understanding and mastery.

DIGITAL MANIPULATIVES provide opportunities for students to interact.



SKILL APPLICATION provides immediate opportunity for students to practice what they learned.



DUAL TOPICS avoid cognitive overload.

Building Number Concepts:
Simplifying Expressions by Combining Like Terms
 Students learn to simplify algebraic expressions. This means combining as many terms as possible. To simplify expressions, we combine variable terms with variable terms and number terms with number terms. Students also represent word problems with algebraic expressions.
Objective
 Students will simplify algebraic expressions by combining like terms.
Problem Solving:
Surface Area of Pyramids
 Students learn how to find the surface area of regular pyramids. To do this, they find the area of the base and add it to the area of the faces. Students see how a coefficient represents the number of faces of a pyramid to apply the area formula.
Objective
 Students will find the surface area of different kinds of regular pyramids.

Lesson 7 Simplifying Expressions by Combining Like Terms
 Problem Solving: Surface Area of Pyramids

Lesson Planner

Vocabulary Development
 like terms, regular polygon, regular pyramid, slant height

Skills Maintenance
 Variable and Number Terms

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Objective
 Students will find the surface area of different kinds of regular pyramids.
Homework
 Students select the simplified expression for each algebraic expression, simplify expressions by combining like terms, and tell the area formulas needed to find the surface area of the shapes. In Distributed Practice, students practice whole number, integer, and rational number operations in open sentences.

Skills Maintenance
Variable and Number Terms
 (Interactive Text, page 207)
Activity 1
 Students select the algebra tiles that best represents the expression shown. Remind them that gray tiles are positive and black tiles are negative.

VOCABULARY DEVELOPMENT builds student understanding.

VISUAL MODELS illustrate difficult concepts.

Building Number Concepts:
Simplifying Expressions by Combining Like Terms
How do we simplify expressions?
 (Student Text, pages 419–421)
Connect to Prior Knowledge
 Begin by drawing these familiar two-dimensional shapes on the board or overhead:
 ▲ ▲ ▲ ● ● ● ● ●
Ask:
How can these objects be described?
Listen for:
 • A description of the quantity of each shape, such as *two triangles, three circles, and three squares*.
 Explain that even though we see eight shapes all together, we tend to sort them into like shapes.
Link to Today's Concept
 In today's lesson, we group **like terms** in algebraic expressions as well.
Demonstrate
Engagement Strategy: Teacher Modeling
 Demonstrate how to simplify expressions in the following way:
 • Have students turn to page 419 of the Student Text. Explain that simplifying an expression means to combine variable terms with other variable terms (if the terms have the same variable, e.g., all x s) and number terms with other number terms. Point out that we cannot combine unlike terms.
 • Distribute algebra tiles and have students model the expression $2x + 3x + 2 + 1$ in **Example 1**. Once students have the tiles on their desks, ask them what terms can be combined. Listen for a discussion about grouping the green rectangles, or variable terms, together and grouping the yellow squares, or number terms, together. Point out how easy it is to see what can be combined when we use algebra tiles. The **like terms** look alike.
 • Now have students combine the like terms and write the simplified expression. Be sure they have five green rectangles together on the left and three yellow squares on the right. The simplified expression is $5x + 3$.
 • Point out that this is as simplified as the answer gets. We are not used to seeing this because answers to problems are usually single numbers. But when we start working with algebraic expressions, a simplified expression can sometimes be the answer.

POWER CONCEPTS focus instruction.

WATCH FOR questions guide teachers in assessing student understanding.

- Watch for:**
- Can students correctly simplify the side of the equation they are given?
 - Can students come up with a different, yet equivalent, expression to write on the other side?
 - Do students know to check their work at the end to be sure the two sides are equal?

REINFORCE UNDERSTANDING with interactive online models.

Reinforce Understanding
 Remind students that they can review lesson concepts by accessing the online *Unit 7 Lesson 2 Teacher Talk Tutorial*.

DISTRIBUTED PRACTICE in every lesson provides continued practice of previously learned skills.

Activity 4 • Distributed Practice
 Students practice operations on fractions and integers, PEMDAS, and the Distributive Property.

Lesson 2

Homework
 Go over the instructions on pages 542 and 543 of the Student Text for each part of the homework.

Activity 1
 Students simplify the two sides of an equation and prove they are equal.

Activity 2
 Students complete an expression that balances the scale. They must simplify the expression that is given to them, then find the remaining part of the expression on the other side. Tell students that it needs to be a different expression from the one given, but still equal to the same number.

Activity 3
 Students find the measure of the exterior angle of a triangle.

Activity 4 • Distributed Practice
 Students practice operations on fractions and integers, PEMDAS, and the Distributive Property.

Additional Answers

Activity 1

- $8 + 5 + 2 = 6 + 3$
 $8 + 10 = 18$
 $18 = 18$
- $2 \cdot 5 + 1 + 1 = 3 + 7 + 2$
 $10 + 1 + 1 = 10 + 2$
 $12 = 12$
- $9^2 - 5 + 2 = 40 + 41 + -3$
 $81 - 5 + 2 = 81 + -3$
 $78 = 78$
- $1 + 2 + 3 - 1 = 40 \div (9 - 1)$
 $3 + 3 - 1 = 40 \div 8$
 $6 - 1 = 5$
 $5 = 5$

Differentiated, Interactive and Extended Learning: The Classroom in Action

TransMath units are built for differentiation. Structured in 10 or 15 lessons, units are designed for 50- to 60-minute blocks per day with designated times for differentiation. With a robust selection of activities and online tools, *TransMath* gives teachers the time, guidance, and resources to meet the needs of each student and ensures that students master the skills and standards needed to be Algebra-ready.

Let's take a look at the classroom.

INTERACTIVE CLICK THRU presents the initial instruction for each dual-topic lesson in a downloadable presentation. These presentations provide another visual model to enhance daily instruction. Using a PowerPoint format enables teachers to customize instruction with additional details, cool images, outside sources, new activities, and more to suit their students' needs.

TEACHER TALK TUTORIALS are narrated videos and animations that introduce and develop the initial instruction for each dual-topic lesson. Tutorials benefit teachers by providing an audio and visual model of the day's instruction. Students benefit by receiving 24/7 access to revisit, refresh, and reinforce the skills and standards taught in class.



MATH TOOLBOX includes a variety of digital manipulatives for teachers to use during instruction and for students to use during independent work. These manipulatives are interactive and promote conceptual development and practice needed for mastery.



UNIT OPENERS are written specifically to engage and motivate students at the start of each unit while building background knowledge around the theme for the unit.

REINFORCEMENT ACTIVITIES are additional instructional opportunities recommended for students not demonstrating mastery on lesson quizzes and end-of-unit assessments. These activities provide more intensive instruction on the skills and standards taught in the unit.

ON TRACK! EXTENSION ACTIVITIES are multistep word problems designed for small groups—student-led for “on-track” students and teacher-led for struggling students. These activities promote group discussion, collaboration, and support for complex math problems.

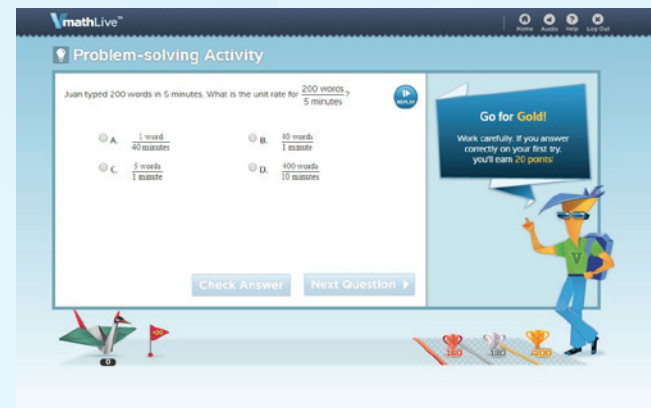
Enriching Technology: VmathLive Engages Students

TransMath is accompanied by VmathLive at no additional charge.

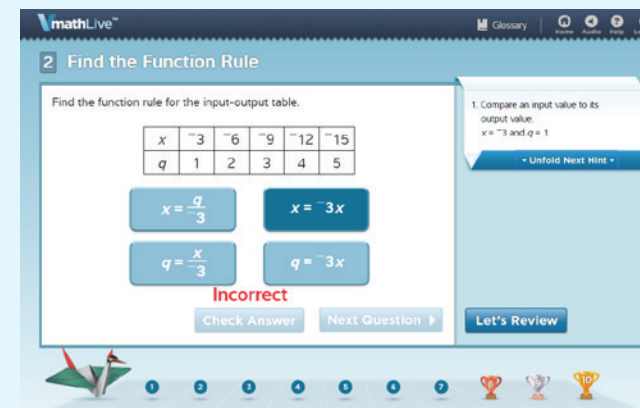
VmathLive® is an online, independent-learning component that helps students apply math skills in a fun, interactive environment that is available anytime and anywhere, on any device. VmathLive engages students with competitive games and additional instruction to improve their math skills in conjunction with TransMath or as an independent differentiation and enrichment tool.



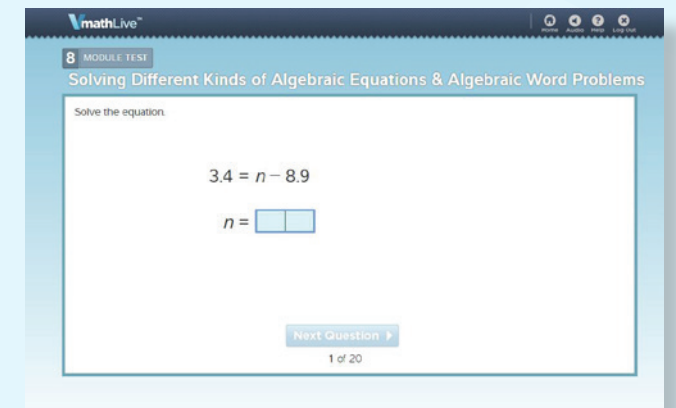
Home Page



Problem-Solving Activity



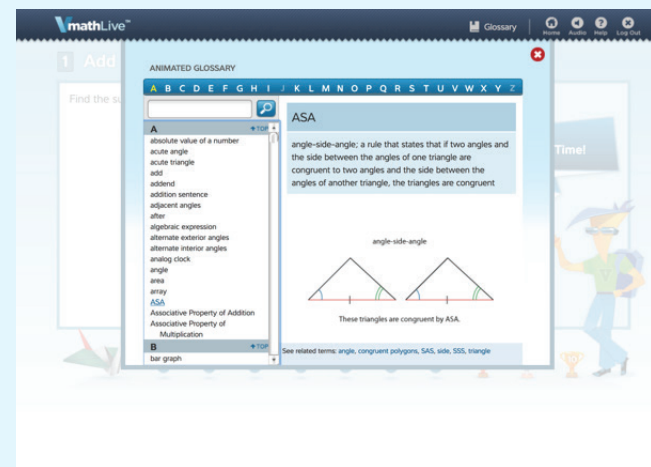
Practice Activities



Mini Assessments



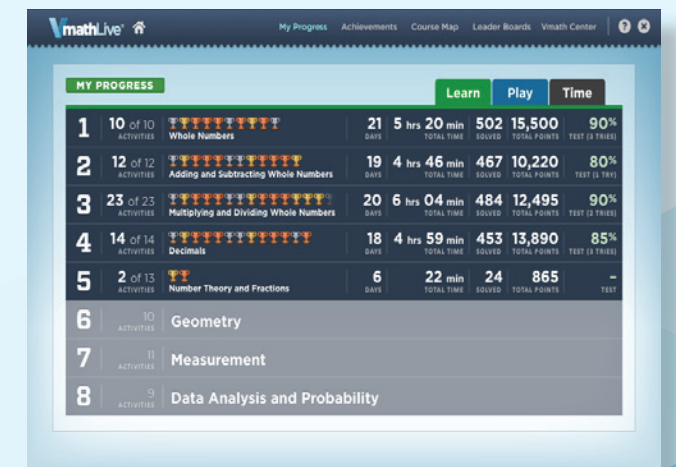
Compete with other students or the computer



Animated Glossary includes key math vocabulary



Rewards promote student participation



Progress Reports show current and past activity

Actionable Data and Reports: Data Drives Instruction

The comprehensive *TransMath* assessment system allows teachers to accurately measure student progress and proficiency at every stage of instruction. **With a variety of reports available from the district level to the individual student, teachers and administrators have actionable data to drive instructional decisions, communicate progress, and ensure students meet their goals.**

Most assessments are available online and paper/pencil with all reports conveniently stored in our online data-management system.

Balanced Assessment

TransMath uses a comprehensive approach to progress monitoring from each assessment taken by a student to reports generated by teachers.

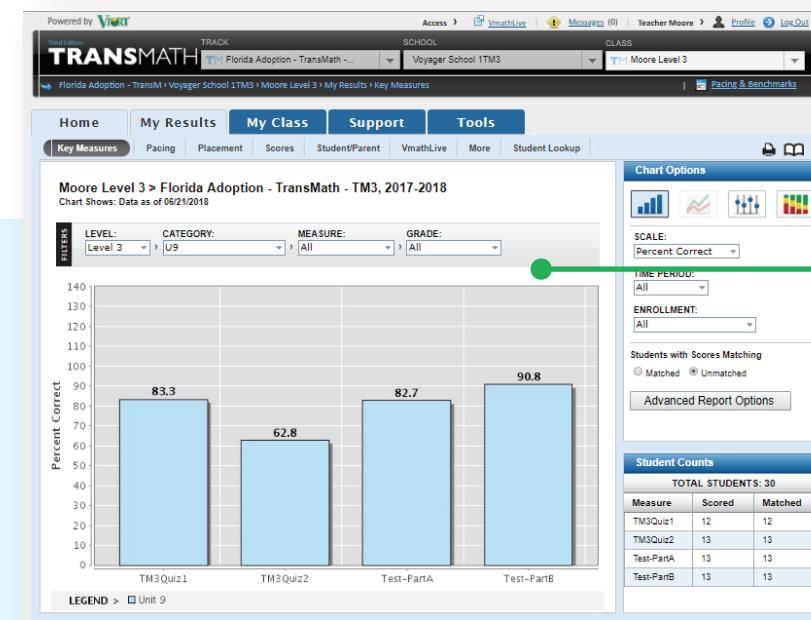


PERFORMANCE ASSESSMENTS are an additional tool to assess student reasoning and problem solving after each unit and can be used as an effective FSA-prep tool. They require students to demonstrate problem-solving abilities and the proper use of mathematical language and vocabulary to justify their processes and solutions.

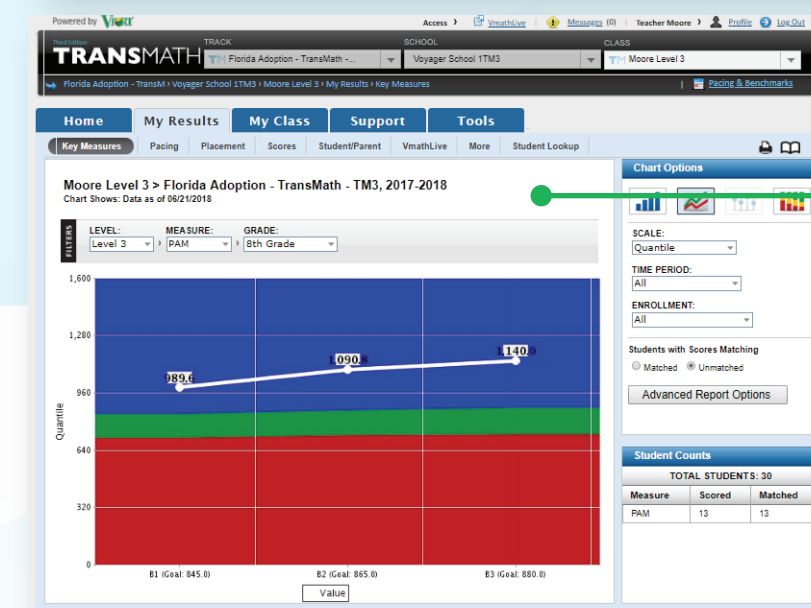
THE STUDENT/PARENT REPORT is a custom report generator designed for parent communication on student progress. The report summarizes score data on key measures in an easy-to-read format for students and parents.



BASILINE AND SUMMATIVE ASSESSMENTS are administered at the beginning and end of each year. Depending on the *TransMath* level, each assessment measures six to nine topics and demonstrates strengths and weaknesses in grade-level proficiency at a granular level.



END-OF-UNIT ASSESSMENTS AND UNIT QUIZZES assess key skills, procedures, and conceptual knowledge from the unit. The results provide crucial, timely data for teachers to make instructional decisions for students that have an immediate impact.



PROGRESS ASSESSMENT FOR MATHEMATICS (PAM) powered by The Quantile Framework is a benchmark assessment that assigns students a quantile score. A quantile represents a student's range of skills and readiness for learning new skills. As a benchmark assessment, PAM tracks student proficiency during the course of the year.

Unparalleled Professional Development and Support: Make a Difference in Florida

Adopting a new math program is a huge commitment for every district and a substantial change for teachers and students. Voyager Sopris Learning® understands the importance of effectively planning, launching, and nurturing an implementation to achieve success.

Therefore, we customize implementation plans to meet specific needs and goals of every district adopting our solutions. We are the experts of our programs like district leaders are the experts of their schools and we work with districts to customize an implementation plan that includes the training and support teachers deserve.

With a variety of services and activities, our top priority is building an effective and sustainable implementation in year one with supports to further success each year of the adoption.

All professional development plans are built as flexible, living documents to adjust to the ongoing needs of the district with services such as, but not limited to:

District Launch Trainings for Teachers

- initial fall launch training
- new-hire launch training (mid year)
- delayed late-hire launch training

Priority Support for District-Identified Schools

- custom work sessions
- custom data reports
- intensive support services
- individualized action plans

Leadership Touchpoints for Administrators

- implementation status
- data reports and analysis
- planning, goal setting
- challenges/next steps
- classroom observation PD
- MAFS instruction

Webinars for Monthly Online Touchpoints

- customized topics
- sharing best practices
- Q&A forums
- FSA prep and enrichment

Implementation Support for All Schools

- lesson modeling
- curriculum review
- data analysis
- MAFS alignment
- differentiation coaching
- side-by-side coaching
- principal/coach meetings
- progress monitoring
- goal setting/action plans
- lesson planning/delivery
- student grouping
- classroom visits

District Meetings & Customizations

- strategic planning
- data analysis
- MAFS & FSA alignment
- ongoing PD planning
- custom pacing guide
- SSO integration
- customized reporting
- goal setting/action plans

Creating a Successful Path to Algebra. *Read what our customers have to say...*

“Last semester, we had 23 percent overall growth in our students who were in *TransMath* Level Three, and that was looking at all six of our traditional high schools.”

—**April Brantley**
Alamance-Burlington School System,
North Carolina

“Having a program like *TransMath* that breaks [math] down is amazing...When my students say, ‘I can’t do fractions,’ and then by the end of the lesson, they’re getting 95 percent and saying, ‘Yes, I can,’ it’s really great to see.”

—**Sarah Sherman**
Albuquerque Public Schools,
New Mexico

“I know when we presented the data in front of the board of ed, they were just like in awe of the growth that the kids are making from the use of *TransMath* with our district assessments to our state assessments.”

—**Jason Rosen**
Farmington Public Schools,
Missouri

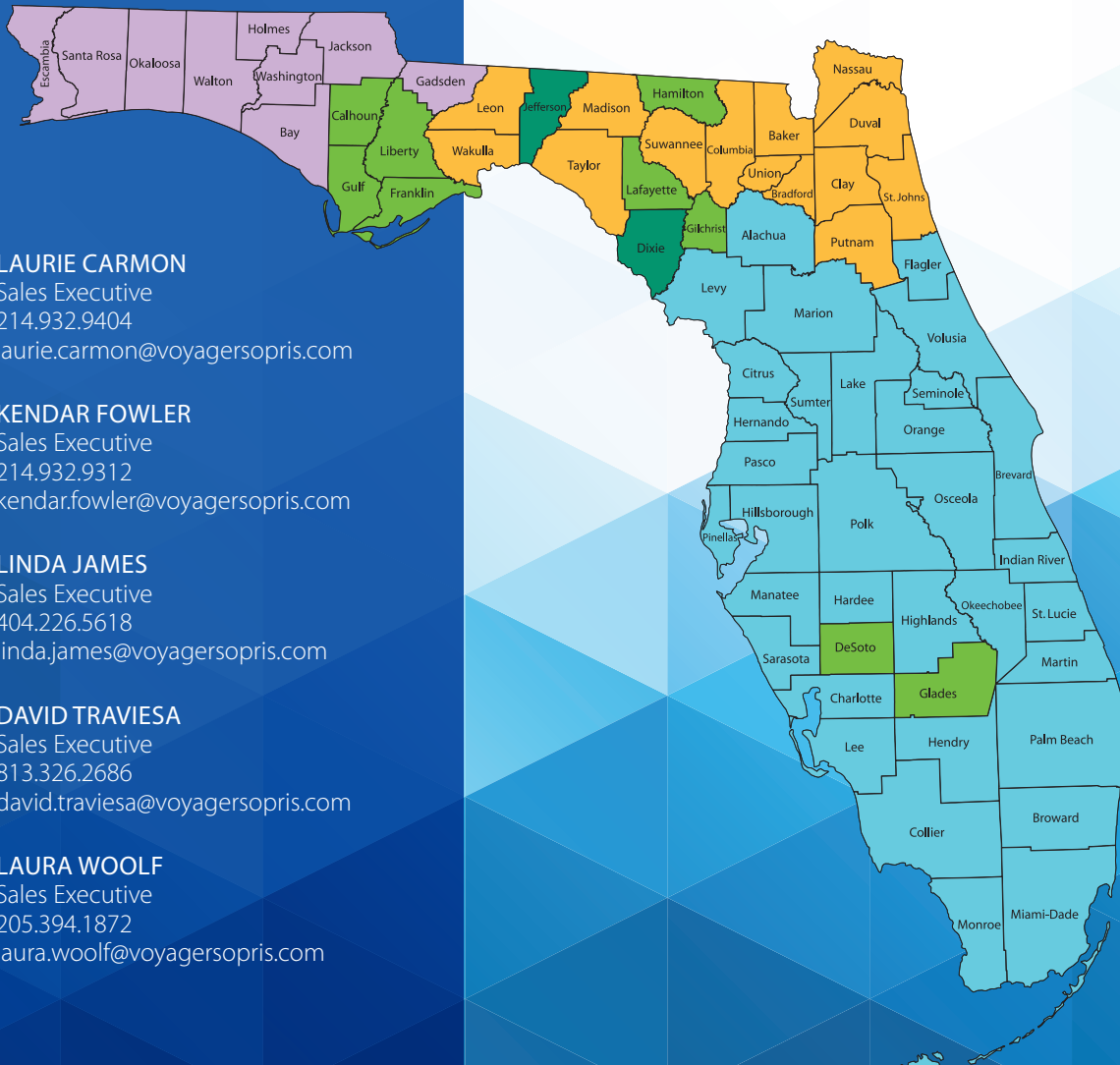
“I love when I overhear one student offering help to another student who may have made an error or is confused. It empowers them and also tells me that if you can teach the skill, then you have mastered the skill.”

—**Patrice Kentner**
City School District of New Rochelle,
New York

Contact your sales executive to explore successful solutions for your students today.

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