

Mc  
Graw  
Hill

Program Overview  
Grade 7 Accelerated

Reveal  
**MATH**<sup>TM</sup>  
Accelerated

Reveal the Full Potential  
in Every Student

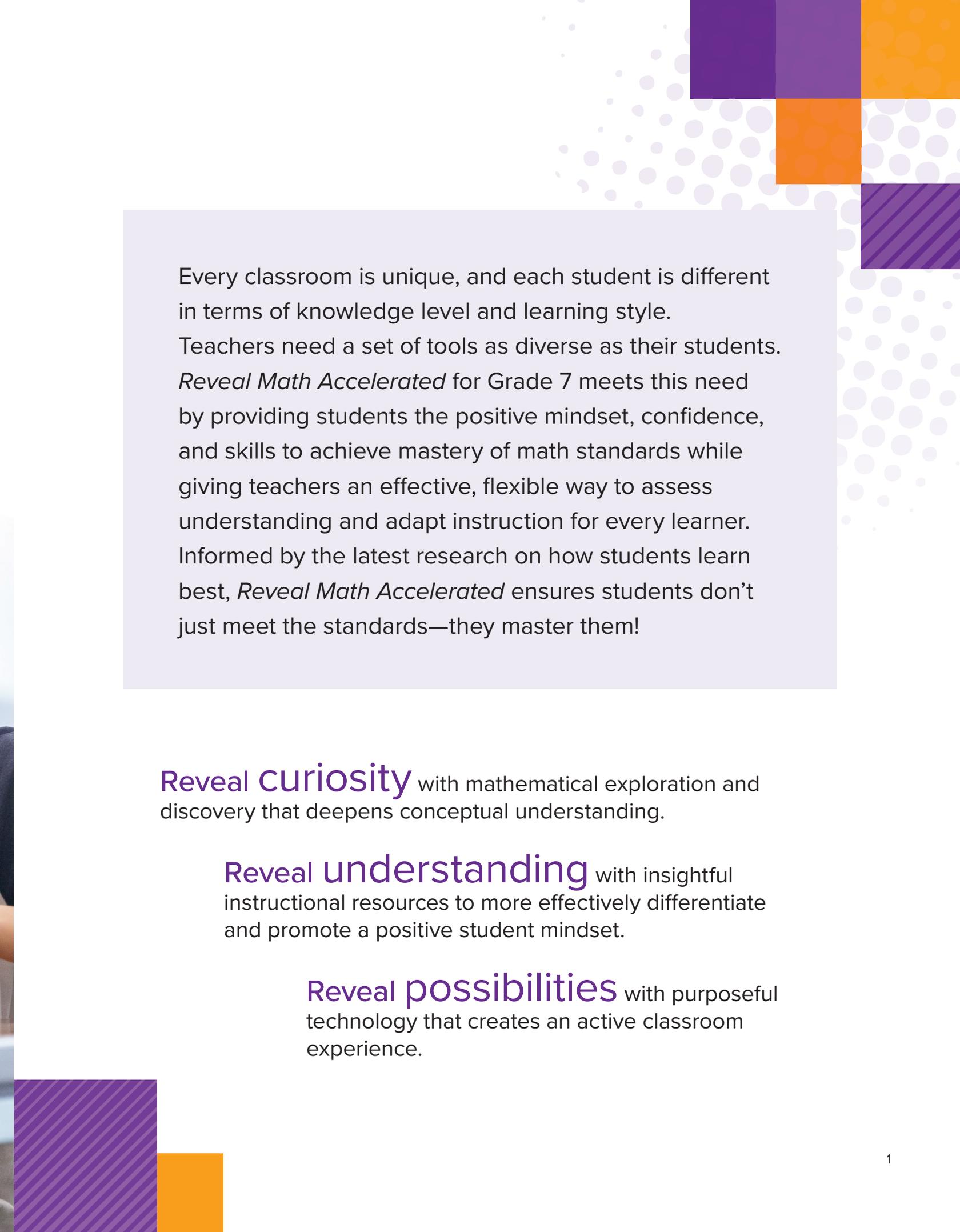
[revealmath.com](http://revealmath.com)



# Reveal the Power and Possibility of Math!

*Reveal Math™ Accelerated* includes a wealth of print and digital resources that lead to mastery of the standards.





Every classroom is unique, and each student is different in terms of knowledge level and learning style. Teachers need a set of tools as diverse as their students. *Reveal Math Accelerated* for Grade 7 meets this need by providing students the positive mindset, confidence, and skills to achieve mastery of math standards while giving teachers an effective, flexible way to assess understanding and adapt instruction for every learner. Informed by the latest research on how students learn best, *Reveal Math Accelerated* ensures students don't just meet the standards—they master them!

**Reveal curiosity** with mathematical exploration and discovery that deepens conceptual understanding.

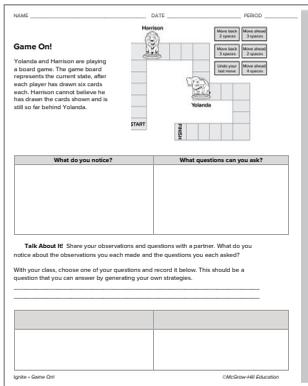
**Reveal understanding** with insightful instructional resources to more effectively differentiate and promote a positive student mindset.

**Reveal possibilities** with purposeful technology that creates an active classroom experience.

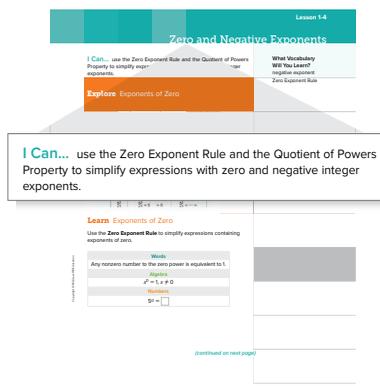
# The Science of Learning Meets the Art of Teaching

The evolving field of educational research drove the approach of *Reveal Math Accelerated*. Our team was inspired by esteemed publications such as *Principles to Actions* (NCTM), *Mathematical Mindsets* (Jo Boaler), and *Making Sense of Math* (Cathy Seeley), as well as learning models including Bloom’s Taxonomy and Webb’s Depth of Knowledge Guide. This solid foundation of academic research and direct feedback from hundreds of educators just like you ensures that *Reveal Math Accelerated* represents the cutting-edge of best practices in mathematics instruction.

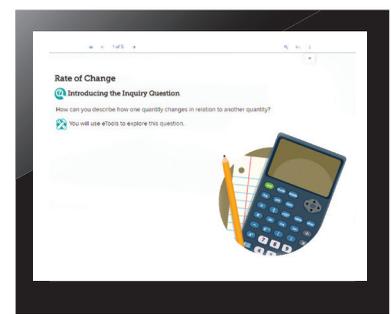
## Research-Based Best Practices



**Spark Students to Ask “Why?”**  
**Ignite! Activities** are designed to spark student curiosity and motivate them to ask questions, solve complex problems, and develop a can-do approach to mathematics.



**Build Students’ Confidence in Their Abilities**  
Learning targets in the form of “I Can” statements appear at the beginning of each lesson to communicate the lesson objective in student-friendly language.



**Nurture Curiosity with Rich Tasks**  
Online **Explore** activities begin with an open-ended question and require deep conceptual thinking from the learner. At the end of the **Explore** activity, students apply their learning in order to answer the **Inquiry Question**. The focus is on student exploration and reasoning, not just getting the right answer.

The expert advisor team behind *Reveal Math Accelerated* includes thought leaders at the forefront of mathematics education.



**Cathy L. Seeley, Ed.D.**  
Author, Educator, and NCTM President 2004–2006



**Raj Shah, Ph.D.**  
Founder of Math Plus Academy, a STEM enrichment program

Reveal Math  
Accelerated  
teaches students  
how to think—  
not *what* to think!

 **Talk About It!**

Why are the expressions  $3x$  and  $3x^2$  not like terms?

 **Talk About It!**

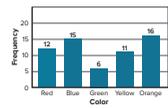
Without using the Distributive Property, what is another way you could add  $6n$  and  $-8n$ ?

 **Talk About It!**

When might it be more advantageous to simplify the expression then evaluate versus evaluating first, then simplifying?

**Apply Experiments**

Blaze randomly selects one marble from a bag that contains red, blue, green, yellow, and orange marbles. He replaces the marble and selects again. Blaze repeats this experiment 60 times. He then spins a spinner with five equal-size sections labeled red, blue, green, yellow, and orange 60 times. Which experiment can be best represented by the graph shown?



Color	Frequency
Red	12
Blue	15
Green	6
Yellow	11
Orange	16

1 What is the task?  
Make sure you understand exactly what question to answer or problem to solve. You may want to read the problem three times. Discuss these questions with a partner.

**First Time** Describe the context of the problem, in your own words.  
**Second Time** What mathematics do you see in the problem?  
**Third Time** What are you wondering about?

2 How can you approach the task? What strategies can you use?

3 Use \_\_\_\_\_

4 you \_\_\_\_\_

Record your observations here

Lesson 10-4 • Compare Probabilities of Simple Events 543

**Improve Communication  
While Deepening Comprehension**

**Talk About It!** prompts build mathematical discourse skills as students learn to clarify their thinking and defend their rationale.

**Teach the Value of Perseverance**

Problems with multiple solution paths encourage **productive struggle** and challenge student thinking.



**Cheryl R. Tobey, M.Ed.**  
Mathematics Program Director  
at Maine Mathematics and  
Science Alliance (MMSA)



**Nevels Nevels, Ph.D.**  
PK–12 Mathematics  
Curriculum Coordinator for  
Hazelwood School District



**Dinah Zike, M.Ed.**  
President of Dinah.com in  
San Antonio, Texas, and  
Dinah Zike Academy



**Walter Secada, Ph.D.**  
Professor of Teaching  
and Learning at the  
University of Miami

# What If Math Class Were the Most Exciting Class of the Day? It Can Be!

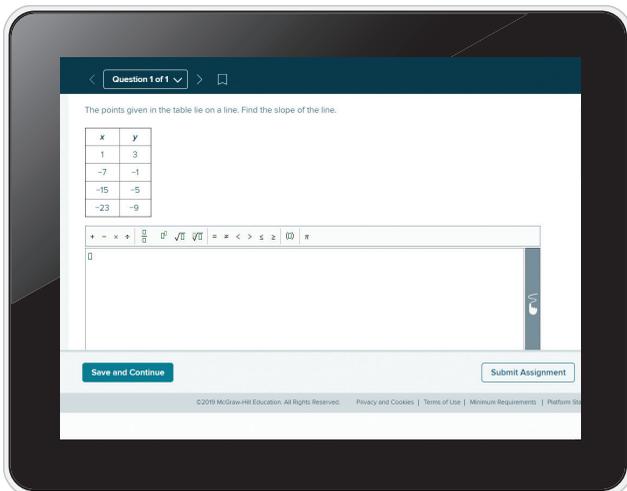
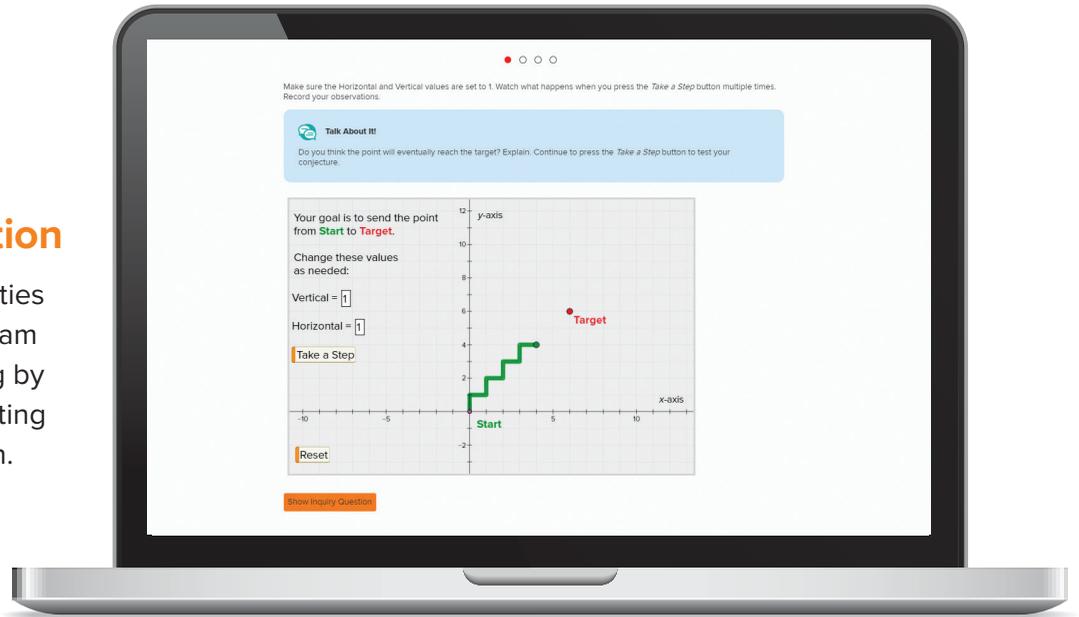
*Reveal Math Accelerated* supports both low-tech and high-tech classrooms. The blended print and digital instructional model captures the best of both modalities and brings them together in a seamless experience that makes math meaningful for your students.



**Web Sketchpad®**

## Visualize Math Concepts in Action

**Web Sketchpad®** activities included with the program enhance understanding by dynamically demonstrating math concepts in action.



## Prepare Students for Computer-Based Testing

**Technology-enhanced items** provide students the valuable practice they need to master computer-based assessments. These items include:

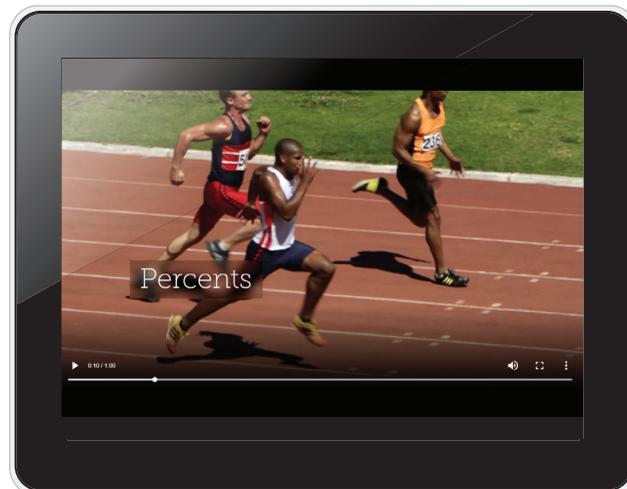
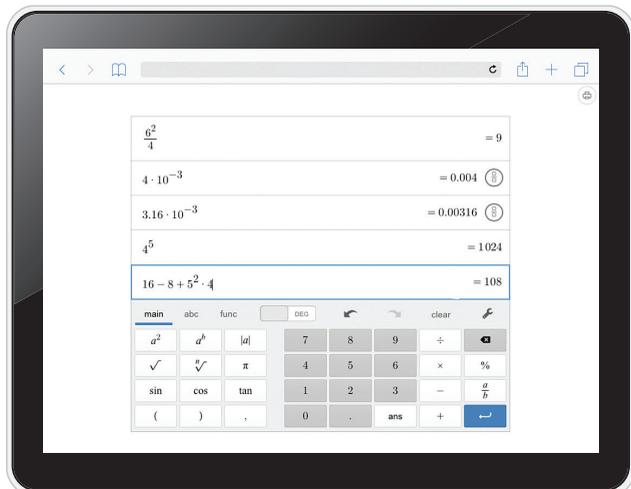
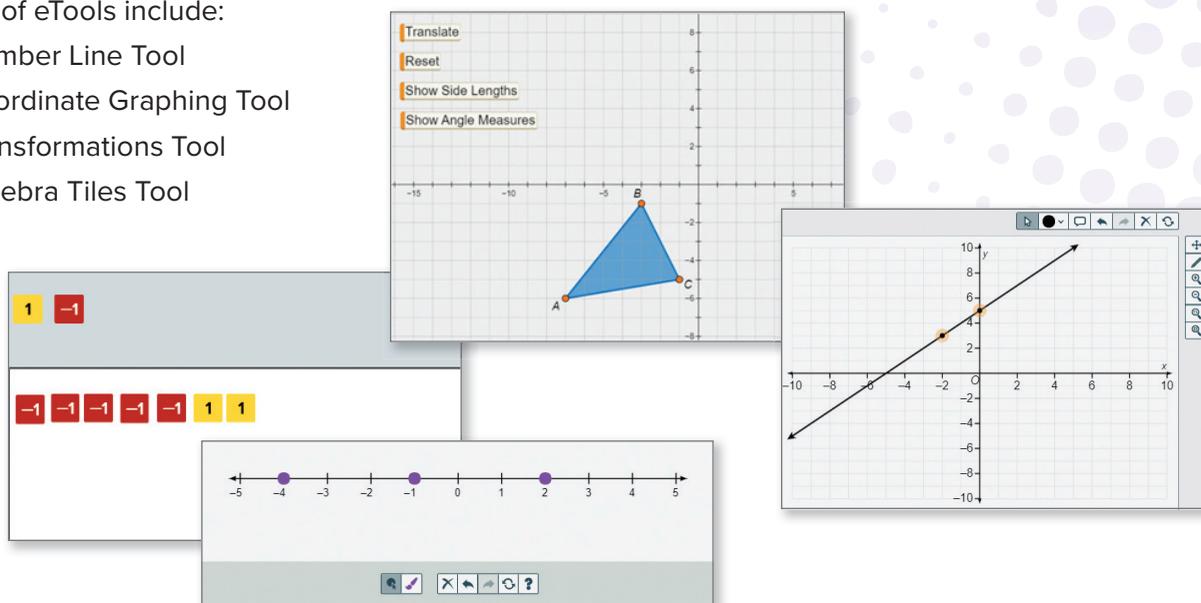
- Drag-and-drop
- Equation editor problems
- Multiselect
- Open response

## Utilize Digital Tools for Problem-Solving

Embedded within lessons, a convenient collection of **eTools** builds a bridge from conceptual understanding to procedural fluency:

Types of eTools include:

- Number Line Tool
- Coordinate Graphing Tool
- Transformations Tool
- Algebra Tiles Tool



### Explore, Model, and Apply Math

The best-in-class **Desmos scientific calculator**, easily accessible in *Reveal Math Accelerated*, allows students to utilize the same resource that appears on many common standardized tests.

### Motivate With Truly Enjoyable Technology

Designed with student engagement in mind, the digital resources in *Reveal Math Accelerated* include **animations, videos,** and **interactive problems** to enhance context and learning.

# Drive Learning With Student-Centered Instructional Tools

In *Reveal Math Accelerated*, the Teacher Edition centers around opportunities to promote mathematical discourse, collaboration, and a positive student mindset.

## Develop Habits of Mind With Standards for Mathematical Practices Tips

These strategies illustrate ways teachers can integrate the practices in their classroom in a practical and meaningful way.

### Teaching the Mathematical Practices

#### 1 Make Sense of Problems and Persevere in Solving Them

Students will be presented with a task. They will first seek to understand it, and then determine possible entry points to solving the problem. As they work to solve the problem, they will evaluate their progress and change direction, if necessary.

**2 Reason Abstractly and Quantitatively** As students discuss the *Talk About It!* question encourage them to attend to the meaning of the quantity 3.5 feet, not just how to calculate with it.

**3 Construct Viable Arguments and Critique the Reasoning of Others** As students respond to the *Write About It!* prompt, have them make sure their argument uses correct mathematical reasoning. If you choose to have them share their responses with others, encourage the listeners to ask clarifying questions to verify that the reasoning is correct.

## Encourage Student Discourse

Leveled **Questions for Mathematical Discourse** provide point-of-use discussion prompts that teachers can use to facilitate classroom discussion.

### Questions for Mathematical Discourse

SLIDE 2

- AL** What operation is paired with the variable? **addition**
- AL** Read the inequality in words. **Sample answer:  $x$  plus three is greater than ten.**
- OL** How will you undo the addition of 3? Why? **Subtract 3 from each side of the inequality. Sample answer: Addition and subtraction are inverse operations.**
- OL** What property of inequality is used to subtract 3 from each side? **Subtraction Property of Inequality**

## Integrate Technology in a Way That Makes Sense

User-friendly tips in the Teacher Edition suggest when and how to integrate technology purposefully.

### TYPE



On Slide 2, students determine the missing value to solve an inequality.

### eTOOLS



On Slide 3, students use the Number Line eTool to graph the inequality on the number line.

### CHECK



Students complete the Check exercise online to determine if they are ready to move on.

## ASSESS AND DIFFERENTIATE

 Use the data from the **Checks** to determine whether to provide resources for extension, remediation, or intervention.

**IF** students score 90% or above on the Checks, **BL**  
**THEN** assign:

- Practice, Exercises 1–7 odd, 8–11
- Extension: Margin of Sampling Error
-  **ALEKS** Collecting Data

**IF** students score 66-89% on the Checks, **OL**  
**THEN** assign:

- Practice, Exercises 1–6, 9
- Extension: Margin of Sampling Error
- Remediation: Review Resources
- Personal Tutor
- Extra Examples 1-4
-  **ALEKS** Collecting Data

**IF** students score 65% or below on the Checks, **AL**  
**THEN** assign:

- Remediation: Review Resources
-  **ALEKS** Collecting Data

### Provide In-the-Moment Differentiation

An **Assess and Differentiate** feature at the end of each lesson provides suggestions to reach every learner.

## Mindset Matters

### Attitude Ownership

Part of developing a growth mindset involves acknowledging progress in growth thinking and sharing it with others. It's important for a student to own his or her mindset, attitude, and beliefs and be proud of the growth. Students should view themselves as people who have a growth mentality—not just in math, but with learning, in general.

### Fuel Growth by Encouraging a Positive Mindset

**Mindset Matters** tips at the beginning of each module provide strategies for encouraging a growth mindset and productive approaches to problem-solving.

# Assessment

With *Reveal Math Accelerated*, seventh grade students apply their deep, authentic learning to a variety of assessments in order to demonstrate that they can explain both the *what* and the *why* of mathematics—not just the *how*.

## Teach Students That Mistakes Are an Opportunity for Growth

Each module features a **Cheryl Tobey Formative Assessment Math Probe**—exclusive to McGraw-Hill Education!

Students complete an activity that is designed to target common misconceptions about a particular mathematical concept. Teacher resources include support for diagnosing and correcting these misconceptions.

**Formative Assessment Math Probe**  
Equivalent Expressions

**Analyze the Probe**  
Review the probe prior to assigning it to your students. In this probe, students will determine if each pair of expressions is equivalent.  
**Targeted Concept:** Expressions can look different but still be equivalent. Strategies such as combining like terms, factoring, and distribution can be used to determine whether expressions are equivalent.  
**Targeted Misconceptions:**  
• Students may fail to recognize the Distributive Property or apply the property incorrectly.  
• Students may factor incorrectly or factor only part of an algebraic expression.  
• Students may lack understanding of "the terms."  
Assign the probe after Lesson 5.

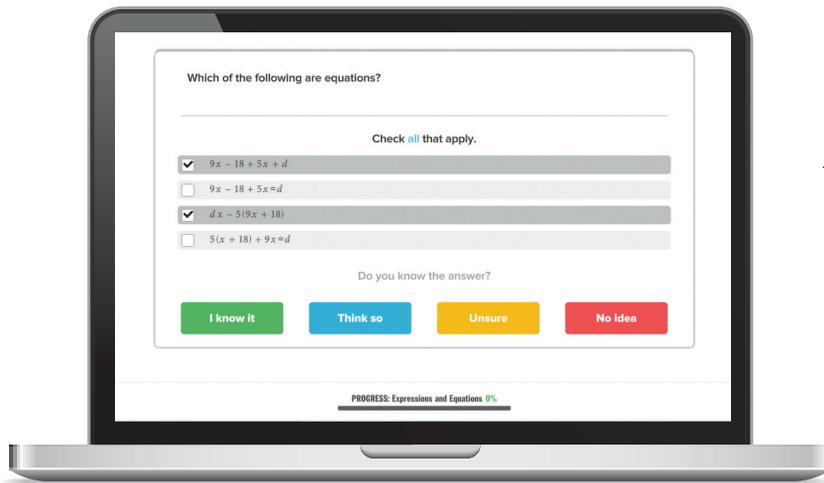
**Collect and Assess Student Work**

The student selects...	The student likely...
1. No math notation other than subscripts	incorrectly combined and
2. Yes, 4, No, 5, Yes, 6, No	did not distribute to each
Various incorrect choices	incorrectly calculated the

**Take Action**  
After the Probe: Design a plan to address any possible misconceptions using the following resources:  
• **CALEKS:** Whole Numbers and Integers, Fractions, Decimals  
• Lesson 1, Examples 1-6  
• Lesson 2, Examples 1-2  
• Lesson 3, Examples 1-3  
• Lesson 4, Examples 1-5  
• Lesson 5, Examples 1-3  
Revisit the probe at the end of the module to be sure your students' misconceptions.

**Equivalent Expressions**  
Decide if the expressions are equivalent.

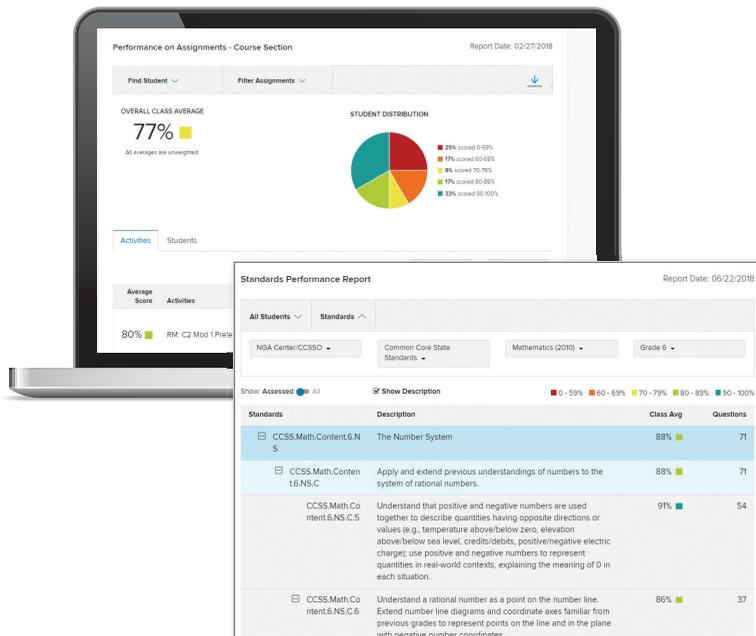
Circle your choice:	Explain your choice:
1. a. $3m + 4 + 5m$ b. $12m$ Equivalent? YES NO	
2. a. $3x + 5 + 7x$ b. $10x + 5$ Equivalent? YES NO	
3. a. $4(x - 8)$ b. $4x - 8$ Equivalent? YES NO	
4. a. $-5(x - 8) + 2$ b. $-5x - 38$ Equivalent? YES NO	
5. a. $(-2 + z) - (3z - 8)$ b. $-2z + 4$ Equivalent? YES NO	
6. a. $(n - 8) + (n - 8)$ b. $2(n - 8)$ Equivalent? YES NO	



## Ensure Topic Mastery

**LearnSmart**<sup>®</sup>, included with *Reveal Math Accelerated*, provides students with access to an online, interactive study tool.

*LearnSmart* assesses a student's proficiency and knowledge within a specific course, tracks which topics have been mastered, and identifies areas that need more study.



## Drive Instruction With Actionable Data

Reveal Math Accelerated creates reports and recommendations by drawing on real-time performance data from student assessments and activities. These reports and recommendations provide teachers and administrators with the information they need to monitor and adjust instruction on a daily basis.

### Activity Report

- Overall class or student average score.
- Overall class or student progress over time.
- Performance by activity type (e.g., homework, quiz, exam).
- Average score per activity.

### Standards Report

Class and individual average score per standard, skill, or objective.

### Recommendations Report

Suggested resources can be assigned to a single student or a group of students based on performance.

### Administrator Report

Activity, standards, progress, and usage reports.

## Assessment Options

### Diagnostic Assessment

- Diagnostic and Placement Test, With Scoring Guide
- Module Pretests

### Formative Assessment

- Cheryl Tobey Formative Assessment Math Probes
- Checks
- Exit Tickets
- Put It All Together

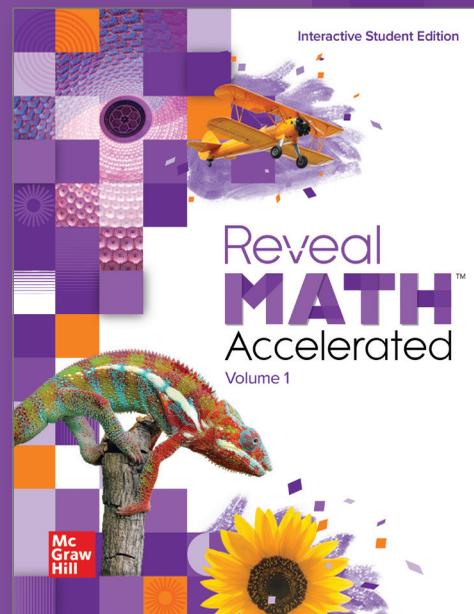
### Summative Assessment

- Leveled Module Tests
- Module Review
- Module Vocabulary Tests
- Benchmark Tests
- End of Course Test
- Performance Tasks
- *LearnSmart*

**PLUS**—Build your own assessments with access to question banks featuring technology-enhanced items.

# The K–12 Solution for Today’s Mathematics Classroom

*Reveal Math Accelerated* is a coherent, vertically aligned K–12 core math solution that empowers educators to uncover the mathematician in every student through powerful explorations, rich mathematical discourse, and timely individualized learning opportunities.

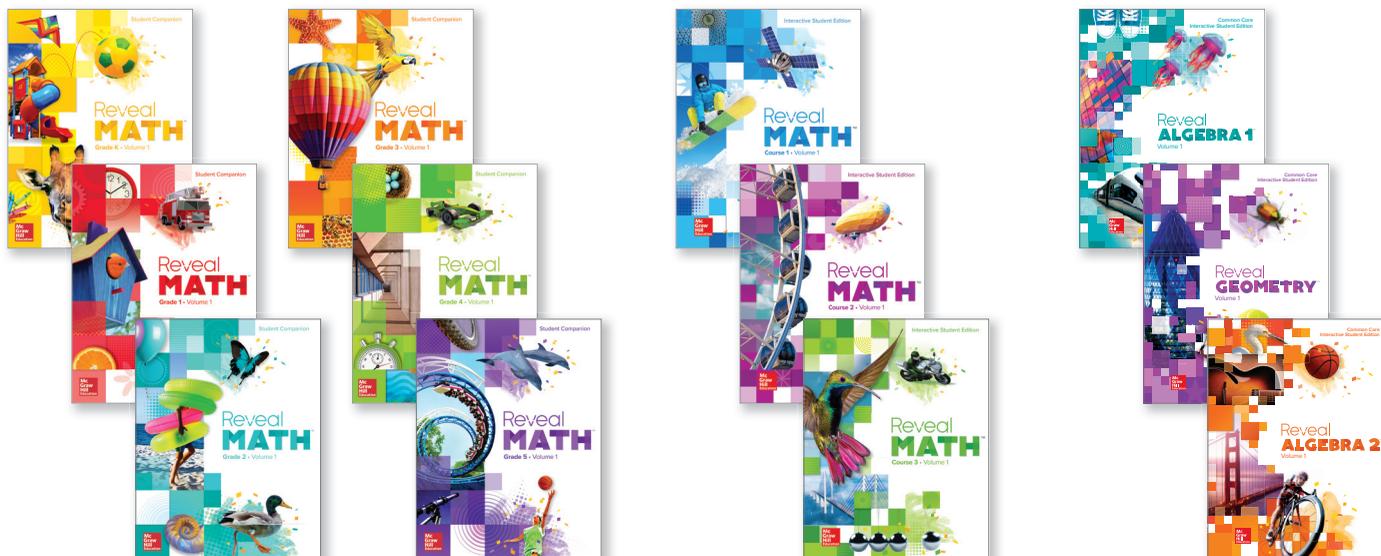


COMING SOON!

K–5

6–8

9–12



Learn more about *Reveal Math Accelerated*

Contact your sales representative at [mheducation.com/contact](http://mheducation.com/contact) for more information.