McGraw Hill

Program
Overview
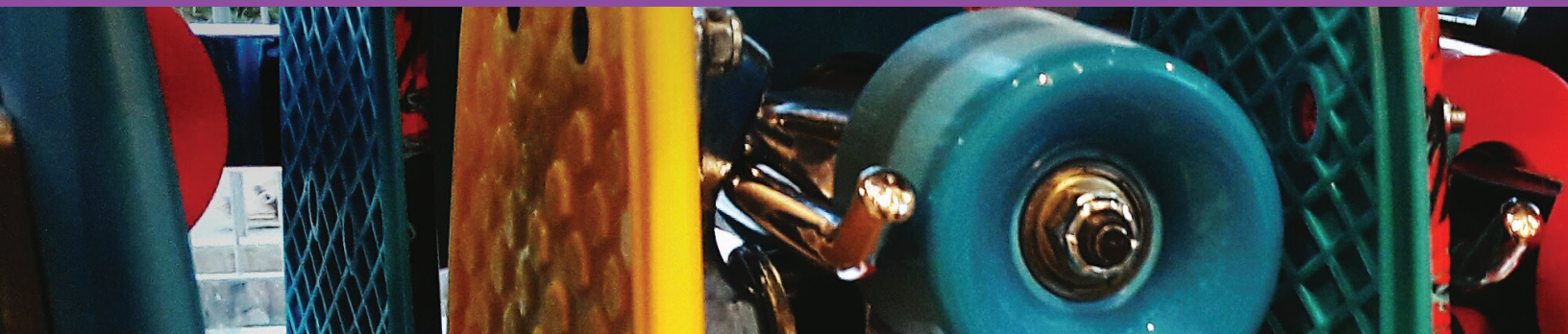
Grades 9–12

Florida Reveal
MATH®

Table of Contents

01

Florida's B.E.S.T. Standards

Florida Reveal Algebra 1, Florida Reveal Geometry, and *Florida Reveal Algebra 2* ensures that your students can meet Florida's B.E.S.T. standards, including Honors expectations, while also developing the thinking and reasoning skills needed for high achievement and success on their pathway toward college and career.

02

Motivate Students

Motivate students by instilling confidence and an appreciation for how mathematics goes beyond the "right" answer. Learn how *Florida Reveal Algebra 1, Florida Reveal Geometry,* and *Florida Reveal Algebra 2* gives you the tools to create a classroom of learners who possess a positive mindset focused on growth and who make mathematical connections to the world around them and each other.

Review ***Florida Reveal Math*** Online

my.mheducation.com | Teacher UN/PW: **flreveal612** | Student UN/PW: **flreveal612se**
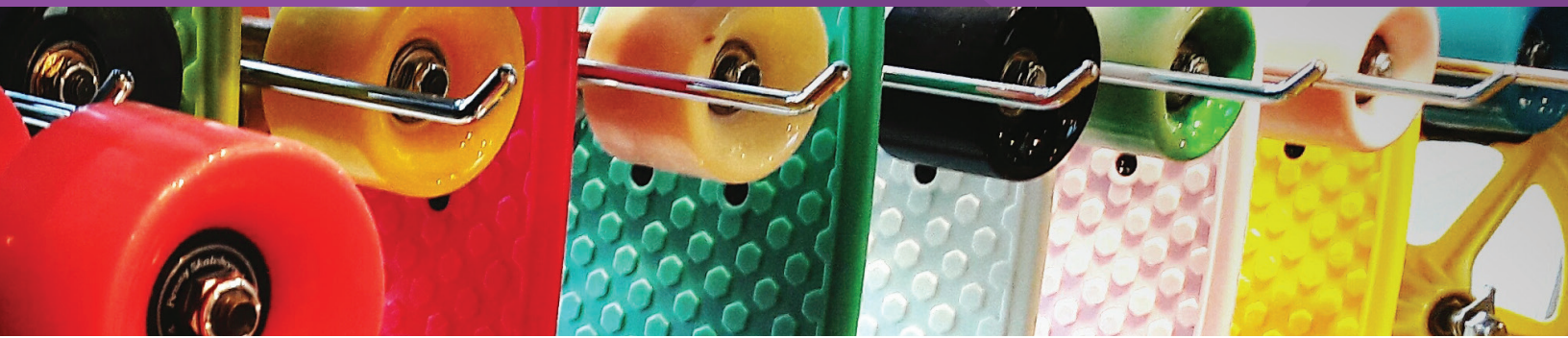
03 Elevate Learning 08

Elevate learning through curiosity, exploration, and questioning. With *Florida Reveal Algebra 1, Florida Reveal Geometry,* and *Florida Reveal Algebra 2*, your students take increased ownership of their learning while you facilitate an active classroom environment. Explore solutions together while strengthening your students' problem-solving and reasoning skills.

04 Achieve Success 16

Achieve success in the classroom using data and essential assessment insights to inform instruction and meet the needs of each learner. Discover how *Florida Reveal Algebra 1, Florida Reveal Geometry,* and *Florida Reveal Algebra 2* prepare you to personalize instruction with effective instructional resources and support.

Designed to Meet Florida's B.E.S.T. Standards

Concise, Clear, Detailed Alignment

With Florida's Benchmarks for Excellent Student Thinking (B.E.S.T.) Standards for Mathematics as the center of development, *Florida Reveal Math* is designed to ensure teachers have the tools to deliver the high-quality instruction needed for student success in math class and beyond.

1. **Lesson Objectives**
   Each lesson outlines two different objectives: content and language.

2. **Mathematical Thinking and Reasoning**
   Mathematical Thinking and Reasoning Standards are integrated into every lesson.

3. **Learning Progression**
   Learning Progressions show what students have learned, what they are going to learn, and what they will learn in the future.

4. **Mathematical Background**
   Teachers are provided with an explanation of the mathematics context behind the Content Objective.

5. **Benchmark Clarifications**
   For ease of planning, each Lesson Overview includes specific Benchmark(s) of Focus and Connecting Benchmark(s) emphasized in the lesson.

Lesson 4-1
Writing Equations in Slope-Intercept Form

1

Lesson Objectives
Content Objective: Students create linear equations in slope-intercept form.
Language Objectives:
- Students talk about writing equations in slope-intercept form using *substitute* and *replace*.
- To support conversation, ELs participate in MLR5: Co-Craft Questions and Problems.

Suggested Pacing
90 minutes: 0.5 day / 45 minutes: 1 day

Florida B.E.S.T. Standards for Mathematics
Benchmark of Focus
MA.912.AR.2.2: Write a linear two-variable equation to represent the relationship between two quantities from a graph, a written description or a table of values within a mathematical or real-world context.
Connecting Benchmarks: MA.912.AR.1.1, MA.912.AR.2.5, MA.912.F.1.3
Mathematical Thinking and Reasoning Standards: MA.K12.MTR.4.1, MA.K12.MTR.5.1, MA.K12.MTR.6.1

2

3

Learning Progression

Previous	Now	Next
Students used similar triangles to derive the slope-intercept form of an equation. (Grade 8)	Students create linear equations in slope-intercept form.	Students will create linear equations in point-slope form and standard form. (Lesson 4-2)

4

Mathematical Background
The slope-intercept form of the equation of a line is $y = mx + b$, where m is the slope and b is the y-intercept of the line. This general equation can be used to write the equation of a line when its slope and y-intercept are known.

Differentiated Resources
Use the differentiated resources available in the Digital Teacher Center to differentiate and enrich students' instructional experience.

ⓡ Reinforce Understanding
- Take Another Look: Writing Equations in Slope-Intercept Form
- Quick Review Math Handbook: Writing Equations in Slope-Intercept Form
- Personal Tutor: Write an Equation Given the Slope and a Point
- Personal Tutor: Write an Equation Given Two Points
- Personal Tutor: Predict Using Slope-Intercept Form
- ALEKS: Equations of Lines

ⓑ Build Proficiency
- Extra Practice Lesson 4-1
- Spiral Review Lesson 4-1

Language Development Support

Vocabulary Support: Choral Responses
Students should be familiar with the vocabulary in this lesson since it has been identified in previous modules. Therefore, ask students to focus on pronunciation as you review each term. In a large group setting, provide students with illustrations or examples for the terms *slope*, *intercept*, *point*, *coordinates*, *linear*, and *equation*. Point to each term and have students identify it aloud altogether. Ask students to provide definitions, examples, or information about each term as you review them. Model correct pronunciation, and go through this process as many times as necessary so that students have the opportunity to improve pronunciation through repeated practice.

5

Equations in Slope-Intercept Form   **209a**

Florida B.E.S.T. Standards for Mathematics
Benchmark of Focus
MA.912.AR.2.2: Write a linear two-variable equation to represent the relationship between two quantities from a graph, a written description or a table of values within a mathematical or real-world context.
Connecting Benchmarks: MA.912.AR.1.1, MA.912.AR.2.5, MA.912.F.1.3
Mathematical Thinking and Reasoning Standards: MA.K12.MTR.4.1, MA.K12.MTR.5.1, MA.K12.MTR.6.1

Florida Honors Content

Look for aligned and labeled honors content in each high school course.

Table of Contents indicators for quick and easy navigation.

Module 4
Equations of Linear Functions

Q Essential Question
What can a function tell you about the relationship that it represents?

The **Module Planner** has two types of labeling determined by the standards designation.

- Lessons comprised entirely of honors content will have a lesson number and "Honors" leading the lesson title.

- "A" or "B" designations preceed or follow a core lesson and include "Honors" in the title.

Let Students Shine with Florida's B.E.S.T. Practice

The **Florida Statewide Assessment Practice Book** provides additional weekly spiral review practice and two end-of-course practice tests.
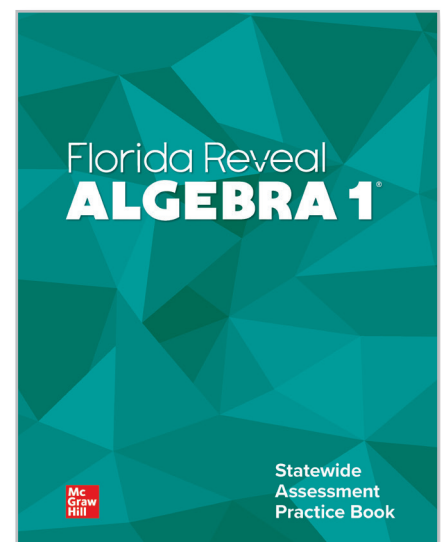
Establish Positivity and Habits for Growth

Florida Reveal Math is infused with research-based best practices designed for teachers to establish a culture of positivity and success where students find purpose in effort and learning opportunities through questions, errors, and discourse.

Mindset Matters

Teachers are prompted at the beginning of every module with **Mindset Matters** to implement strategies for encouraging a growth mindset during upcoming lessons.

Mindset Matters

View Challenges as Opportunities
Part of cultivating a growth mindset in math involves viewing challenging problems or tasks as an opportunity to learn and make new connections in your brain.

How Can I Apply It?
Encourage students to embrace challenges by trying problems that are thought provoking, such as the **Higher-Order Thinking Problems** in the practice section of each lesson. Remember to regularly remind students that each new challenge is an opportunity to grow.

Mathematical Discourse

As a discourse-driven program, *Florida Reveal Math* makes class discussion part of the norm through Student Edition **Talk About It!** prompts and corresponding Teacher Edition **Facilitate Mathematical Discourse** prompts.

ETP Facilitate Mathematical Discourse

- What do you think will happen to the shape of the angles as you drag one vertex? Sample answer: Some angles will get bigger while others will get smaller. This makes sense because the sum is staying equal to 180°.

MLR Discussion Supports

As students answer the question and talk about the shape of the angles, have them pay attention to each other's language and explanations in order to increase their fluency in mathematical discussions about angles. Restate statements they make as a question to seek clarification and provide vocabulary or grammar prompts for students who need more guidance.

Purposeful Tasks to Deepen Understanding

Florida Reveal Math tasks are designed to provide students structure to explore, uncover ideas, justify thinking, and ask each other questions to deepen understanding.
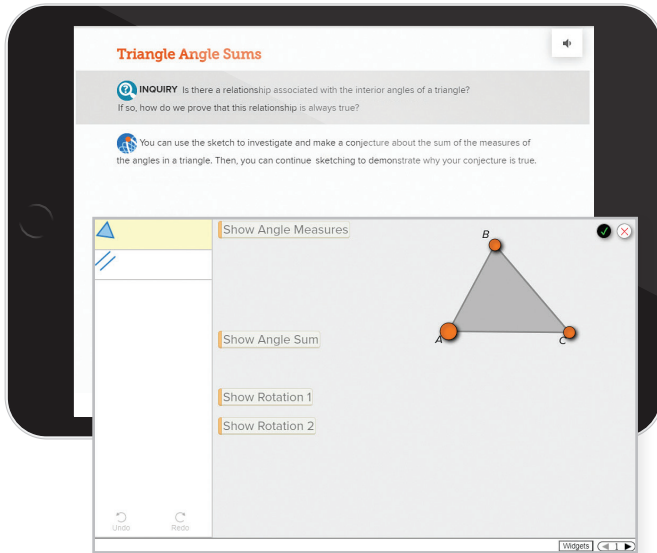
Encourage Collaboration:

Provide opportunities for students to collaborate using the **Ignite!** activity or within the lesson using **Explore and Learn** activities, which supply a framework to solve, discuss, and evaluate problems.

Ignite!

Collaborative Activity Summary
Use this activity at the beginning of the module *Triangles and Congruence*.

Have students work in pairs or small groups to complete the task. This activity is intended to help students use reasoning to identify triangles that are the same size and shape.

Recommended Use

Introduce
Present the situation to the class.

Notice and Wonder
Allow students 1–2 minutes to individually think about and record what they notice and what they wonder about the given information. The goal here is to spark curiosity before asking them to solve the problem.

Share and Narrow
Have students respond to the Talk About It! question with a partner. As a class, narrow down to the target question that they will work with their partner to answer for the duration of the activity.

Focus on Inquiry:

Online **Explore** activities begin with an open-ended **Inquiry Question** to encourage deep thinking and reasoning. Students document their findings either online or on an **Explore Recording Sheet**.

Talk About It! prompts ask students to explain their reasoning and discuss their thinking.

Talk About It!
How could you prove that $m\angle FED = 30°$? What proof method would you choose? Explain your reasoning.

Build Math Language Together

Florida Reveal Math was developed around the belief that mathematics is about communication: listening, speaking, reading, and writing. All students will benefit from support designed to develop and promote the use of mathematical language.

MLR

Math Language Routines

Occur in every lesson to promote the use of mathematical language.

Language Development Handbook

Graphic organizers, tools, and tips to build students' academic and math vocabulary within each lesson.

EL

English Learner Scaffolds

Embedded in each lesson and based on combined WIDA proficiency levels to help students understand math vocabulary, ideas, and concepts in context.

Student Edition

Florida Reveal
GEOMETRY®

Language
Development
Handbook

LOM

Language of Math

Promotes the development of key vocabulary terms that support how students talk and think about math in the context of each lesson.
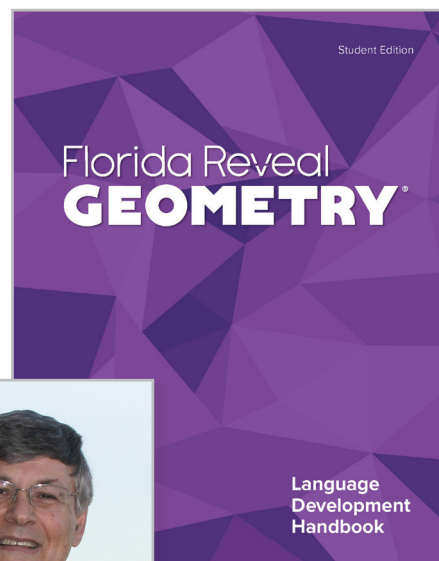
Walter Secada, Ph.D.
—Expert Advisor, ELL

Support for English Language Learners (ELLs)

In addition to embedded Teacher Edition language support strategies, *Florida Reveal Math* includes components and resources to assist ELLs with context and language proficiency.

- **Spanish Student Editions**
- **Spanish Videos**
- **Audio to Improve Listening Comprehension Skills**
- **English/Spanish Glossary**
- **Multilingual eGlossary**
- ***ALEKS* Bilingual Courses in Spanish**

Make Real-World Connections

Florida Reveal Math is about students recognizing that math is everywhere in the world around them and that the world offers them an infinite number of problem-solving opportunities.

Relatable Scenarios

A **Launch the Module** video highlighting an authentic, recognizable scenario engages students in the upcoming lesson topics.

Relevant Connections

A **Launch the Lesson** real-world situation related to the mathematics in the upcoming lesson helps students make connections.

🌐 Example

Lessons also contain real-world **Examples** and **Apply** problems, highlighted with a globe icon, designed to provide relevant contexts in which students can see themselves.

Multicultural Contributions

To provide students with diverse perspectives, **Math History Minutes** highlight the contributions of leading mathematicians, past and present, from all over the world.

Cultural Connections
Prime Numbers

Prime numbers are counting numbers greater than 1 that have no divisors other than 1 and themselves. It is thought that the ancient Egyptians had some knowledge of the prime numbers. However, the earliest surviving records of the study of prime numbers come from the ancient Greeks in about 300 BCE. Mathematics have found that you may be able to use functions like $f(k) = k^2 - 79k + 1601$, where $k = 1, 2, 3, ...,$ to find prime numbers.

Use a Source Research to find out more about the history of prime numbers.

Math History Minute
German mathematician **Emmy Noether (1882–1935)** has been described as one of the greatest mathematicians of the twentieth century.

Cultural Connections

These module activities highlight various cultural contributions to mathematics and require students to use a source to do additional research on the culture or topic.

An Adaptable Lesson Model

The *Florida Reveal Math* lesson is organized into a three-part instructional model supported by differentiation throughout. Each lesson includes opportunities for flexibility using both print and digital resources.

LAUNCH

EXPLORE and DEVELOP

Explore

Learn

Examples

Check
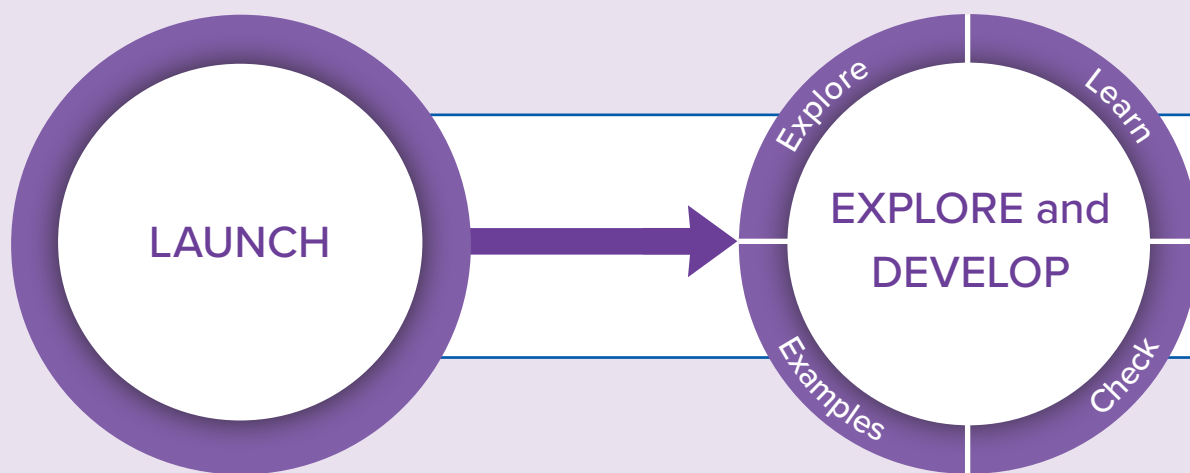
Teachers use the **Warm-Up** at the start of the lesson for a brief review of prerequisite skills before leading into **Launch the Lesson**, designed as a real-world problem to interest students and introduce them to questions they can answer by the end of the lesson.

Teachers introduce the **Explore** activity and have the option to break students into pairs or small groups to work together on this exploratory mathematical task to build a shared understanding. This is followed by a whole group share out and **Learn** activity to formalize student understanding.

Students continue to take ownership of learning by working through **Examples** and **Talk About It!** prompts to encourage math discourse. **Checks** after several **Examples** provide a quick formative assessment moment for teachers to evaluate students' understanding.

REFLECT and PRACTICE

DIFFERENTIATE

At the conclusion of the lesson, the teacher displays the **Exit Ticket** to evaluate student understanding.

The **Practice, Extra Practice**, and/or **Spiral Review** assignments follow the Differentiate phase and conclude the lesson.

Using the data from **Checks** and the **Exit Ticket**, teachers can choose from a variety of **Differentiated Resources** to support student learning needs.

R **Reinforce Understanding**
Resources designed to provide prerequisite skill support.

B **Build Proficiency**
Resources for on-level instructional needs.

E **Extend Thinking**
Resources to extend lesson concepts.

Activate Curiosity and Fuel Learning

IGNITE!

Each module includes an **Ignite!** activity designed to:

- Spark students' interest and curiosity.

- Provide multiple entry points.

- Motivate students to persevere through problem-solving challenges.

IGNITE!

Mathematical Modeling Who Doesn't Use the Internet?

The table shows the results of surveys on Internet non-usage taken every few years since 2000. Study the table.

Internet Non-Usage Among Adults in U.S.	
Year	Percent of Respondents
2000	48
2005	32
2010	24
2015	15
2019	10

Source: Pew Research Center

1. What do you notice?

2. What questions can you ask?

Talk About It! Share your observations and questions with a partner.

You will work with your partner to answer this question: **When will almost everyone use the Internet?**

Analyze the Problem
3. What assumptions are you making? Why are you making these assumptions?

4. What constraints, if any, need to be considered? How might they affect the solution?

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Module 4 • Equations of Linear Functions   **207**

"Let's bring curiosity, wonder, and joy back into the classroom and make math irresistible for kids."

–Raj Shah,
  Contributing Author

Exploration Leading the Way

Sense-Making and Reasoning

Online **Explore** activities focus on an **Inquiry Question** and place a unique emphasis on student discovery, exploration, sense-making, and reasoning, rather than focusing solely on the correct answer.
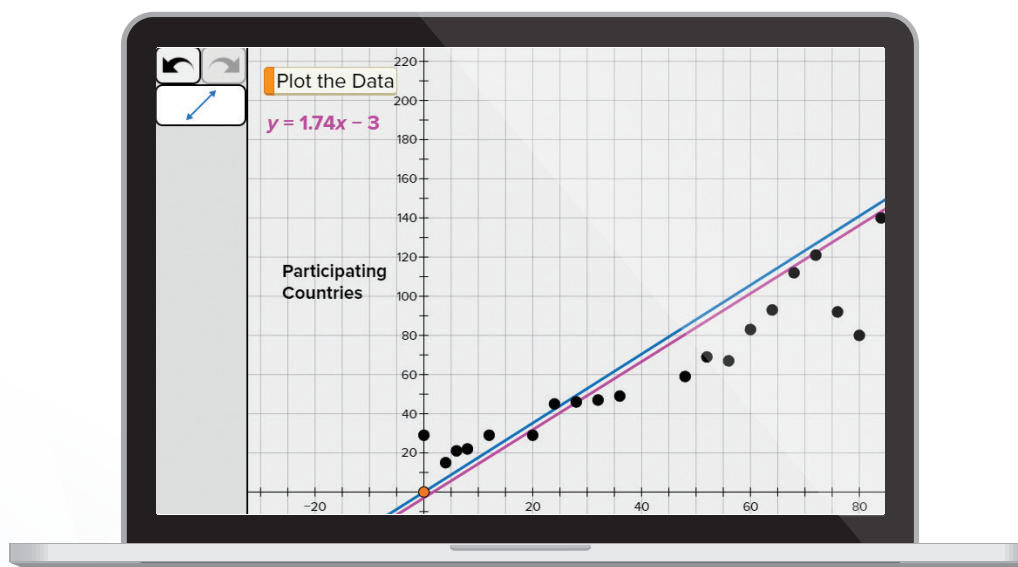
"We have a huge opportunity today in helping students become such strong, fluid, and flexible thinkers that they are able to use mathematics and see opportunities to use it in places we may not even imagine."

**–Cathy Seeley,
  Expert Advisor**

Problem Solving and Application

Florida Reveal Math provides a foundation for students to take increased ownership of learning to become effective problem solvers and critical thinkers.

Demonstrating Perseverance

Rich multi-step application exercises and higher-order thinking questions encourage productive struggle.

Example 5 Compose Functions

Given $f(x) = 2x - 5$ and $g(x) = 3x$, find $[f \circ g](x)$ and $[g \circ f](x)$. State the domain and range for each.

Part A Find $[f \circ g](x)$ and $[g \circ f](x)$.

$[f \circ g](x) = f[g(x)]$ Composition $[g \circ f](x) = g[f(x)]$
of functions

$=$ _____   Substitute. $= g(2x - 5)$

$= 2(3x) - 5$ Substitute again. $=$ _____

$= 6x - 5$

Part B State the domain a

Because $[f \circ g](x)$ and $[g \circ$
slopes, D = {_____
functions.

Check

Given $f(x) = -x + 1$ and $g($
the domain and range for e

$[f \circ g](x) =$ _____

Domain of $[f \circ g](x)$: _____

Range of $[f \circ g](x)$: _____

🌐 **Apply Example 6** U

BOX OFFICE A movie theater charges $8.50 for each of the x tickets
sold. The manager wants to determine how much the movie theater
gets to keep of the ticket sales if they have to give the studios 75% of
the money earned on ticket sales t(x). If the amount they keep of each
ticket sale is k(x), which composition represents the total amount of
money the theater gets to keep?

1 What is the task?

Describe the task in your own words. Then list any questions that you
may have. How can you find answers to your questions?

Watch Out!

Order
Remember that, for two
functions f(x) and g(x),
$[f \circ g](x)$ is not always
equal to $[g \circ f](x)$. Given
that the studios take
their cut after the
tickets have been sold,
consider how that
affects the order of t(x)
and k(x).

🌐 **Apply Example 6** Use Composition of Functions

BOX OFFICE A movie theater charges **$8.50 for each of the x tickets
sold. The manager wants to determine how much the movie theater
gets to keep of the ticket sales if they have to give the studios 75% of
the money earned on ticket sales t(x). If the amount they keep of each
ticket sale is k(x), which composition represents the total amount of
money the theater gets to keep?**

1 What is the task?

Describe the task in your own words. Then list any questions that you
may have. How can you find answers to your questions?

Practice   **Practice • Spiral Review • Extra Practice**

Examples 1 and 2

Find $(f + g)(x)$, $(f - g)(x)$, $(f \cdot g)(x)$, and $\left(\frac{f}{g}\right)(x)$ for each $f(x)$ and $g(x)$.

1. $f(x) = 2x$
   $g(x) = -4x + 5$

2. $f(x) = x - 1$
   $g(x) = 5x - 2$

3. $f(x) = x - 2$
   $g(x) = 2x - 7$

4. $f(x) = x^2$
   $g(x) = x - 5$

5. $f(x) = -6x^4 + 2x^2 + 12$
   $g(x) = -2x^3 + 6x^2 - x - 1$

6. $f(x) = 2x^3 - 4$
   $g(x) = x^2 - 2x + 4$

Example 3

7. **FINANCE** Trevon opens a checking account that he only uses to pay fixed bills,
   which are expenses that are the same each month, such as car loans or rent. The
   checking account has an initial balance of $1750 and Trevon deposits $925 each
   month. The balance of the account can be modeled by $a(x) = 1750 + 925x$,

8. **BASEBALL** A coach is ordering custom practice T-shirts
   and game jerseys for each of the team members. The coach
   orders T-shirts from a local shop that charges $7.50 for
   each, plus a $35 initial printer fee. The cost of the T-shirts
   is modeled by $t(x) = 7.5x + 35$, where x is the number of
   team members. He orders jerseys online, which cost $18
   each with $20 shipping. The cost of the jerseys is modeled
   by $j(x) = 18x + 20$. Define and graph the function that
   represents the total cost of the T-shirts and jerseys.

   a. Identify and write a new function to represent total cost.

   b. Graph the combined function.

   c. Determine the domain and range in the context of the situation.

Team Members

c. Determine the domain and range in the context of the situation.

Mathematical Modeling Tasks

Ignite! Mathematical Modeling activities call for students to construct and develop a model to analyze and present a solution to a real-world scenario. Students then share and discuss their findings with the entire class.

IGNITE!

Mathematical Modeling It's a Puzzle

The table shows the winners of international Rubik's® cube competitions. Study the table.

Competitor, Year	Time (s)	Competitor, Year	Time (s)	Competitor, Year	Time (s)
Dan Knights, 2003	16.71	Ron van Bruchem, 2007	9.55	Lucas Etter, 2015	4.90
Jess Bonde, 2003	16.53	Yu Nakajima, 2008	8.72	Mats Valk, 2016	4.74
Shotaro Makisumi, 2004	15.07	Erik Akkersdijk, 2008	7.08	Feliks Zemdegs, 2016	4.73
Shotaro Makisumi, 2004	12.11	Feliks Zemdegs, 2010	7.03	Patrick Ponce, 2017	4.69
Jean Pons, 2005	11.75	Feliks Zemdegs, 2010	6.77	SeungBeom Cho, 2017	4.59
Leyan Lo, 2006	11.13	Feliks Zemdegs, 2011	6.65	Feliks Zemdegs, 2018	4.22
Toby Mao, 2006	10.48	Feliks Zemdegs, 2011	5.66	Yusheng Du, 2018	3.47
Edouard Chambon, 2007	10.36	Mats Valk, 2013	5.55		
Erik Akkersdijk, 2007	9.77	Collin Burns, 2015	5.25		

1. What do you notice?

2. What questions can you ask?

🌐 **Talk About It!** Share your observations and questions with a partner.

Tools to Support Visualization and Modeling

As math increases in complexity, students will benefit from tools that allow them to represent mathematics in different ways. *Florida Reveal Math* includes **Web Sketchpad®** at the point-of-use within the lessons.
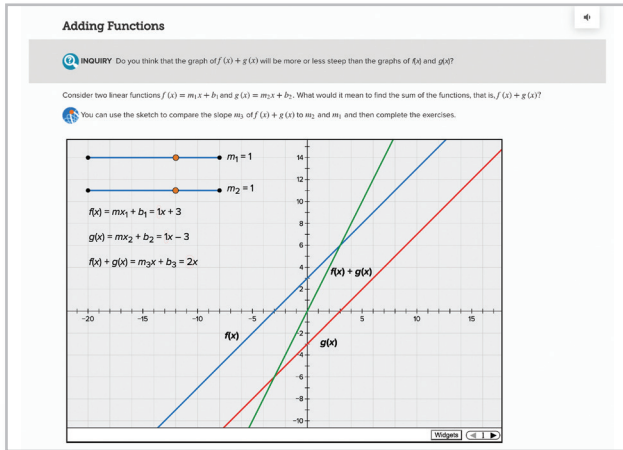
An **eToolkit** accessible from inside the Digital Student Center enables students to learn through dynamic mathematical models.
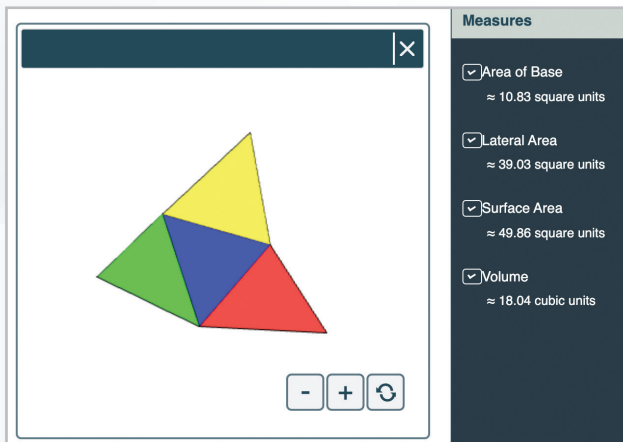
Pause and Reflect

Reflection helps drive accountability and gives students the opportunity to think and write about their learning. Students are regularly asked during **Pause and Reflect** to explain what they have learned.

Pause and Reflect

Did you struggle with anything in this lesson? If so, how did you deal with it?

Notetaking for Understanding

The **Student Edition** is organized with Cornell-inspired margins for students to document notes, draw figures, list key takeaways, or outline strategies.

Purposeful Practice for Challenge and Understanding

Practice in *Florida Reveal Math* provides students with ample opportunity to demonstrate conceptual understanding and procedural fluency. Teachers may choose to fully customize pre-built practice sets and questions.

Practice assignments can be completed in the print Student Edition, using a printable worksheet, or within the Digital Student Center.

Extra Practice assignments contain additional questions for each lesson on a printable worksheet or within the Digital Student Center.

Benefits of Digital Practice

- Multiple Attempts
- Embedded Student Learning Aids
- Tech-Enhanced Question Types
- Dynamic Question Functionality
- Auto-Scoring
- Thousands of Practice Bank Questions

Dynamic Practice

Questions that change value for each student and each attempt are found in Extra Practice, Spiral Review, and Dynamic Module Practice sets.
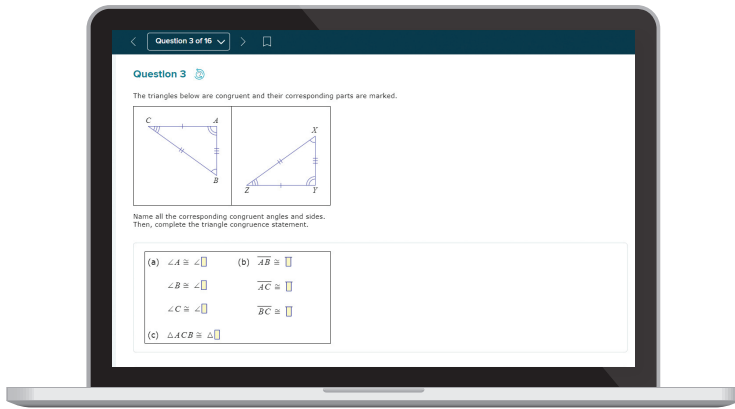
ACT® and SAT® Practice

Florida Reveal Algebra 2 includes student-directed practice support with a **McGraw Hill ACT Practice Book** or **McGraw Hill SAT Practice Book** option. Question sets are also available for digital administration.

McGraw Hill
ACT Math Practice Book

McGraw Hill
SAT Math Practice Book
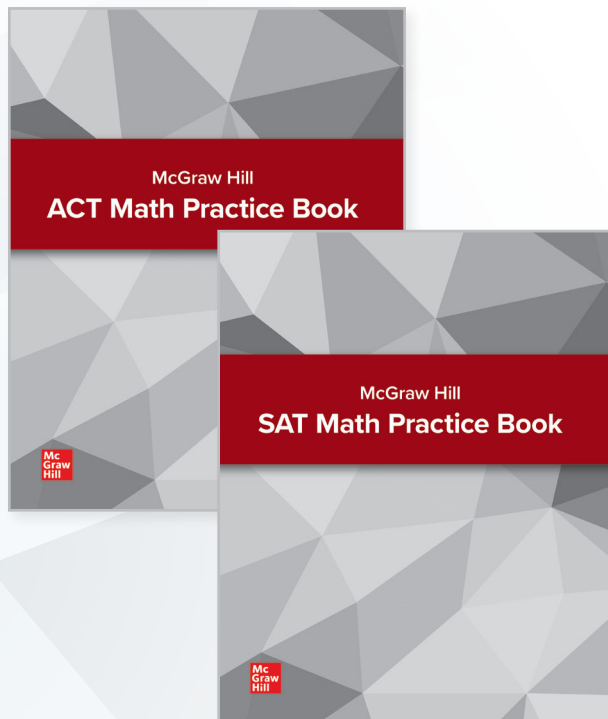
Module FSA Practice

Assessment practice concludes the module in the student edition for *Florida Reveal Algebra 1* and *Florida Reveal Geometry*.

FSA Practice

25. Select the equation of a line that passes through (10, 7) and is perpendicular to the graph of $5x + 2y = 6$. (Lesson 4-2)

A. $y = -\frac{5}{2}x + 3$

B. $y = \frac{2}{5}x + 3$

C. $y = -\frac{5}{2}x + 32$

D. $y = \frac{2}{5}x + \frac{36}{5}$
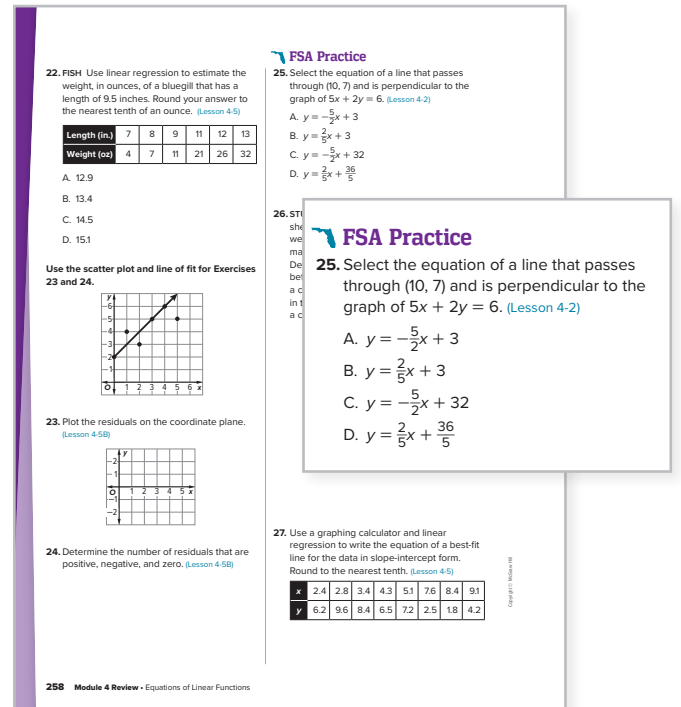
Spiral Review

End-of-lesson practice on concepts presented in prior lessons.
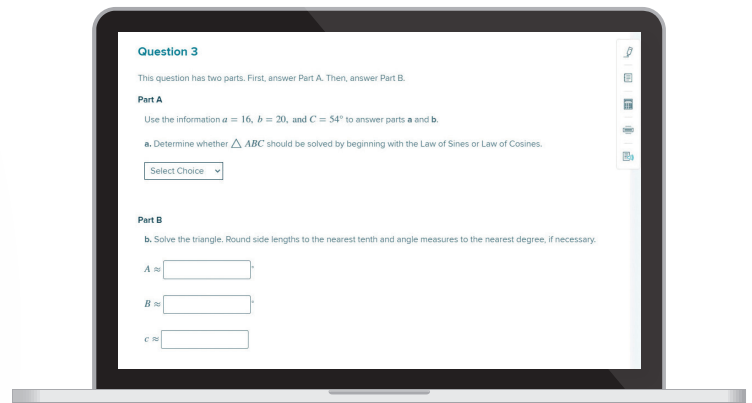
Monitor Student Understanding

Florida Reveal Math offers a comprehensive set of assessments, including diagnostic, formative, and summative options for teachers to effectively evaluate what students know and where they need support.

1. Diagnostic
2. Formative
3. Summative
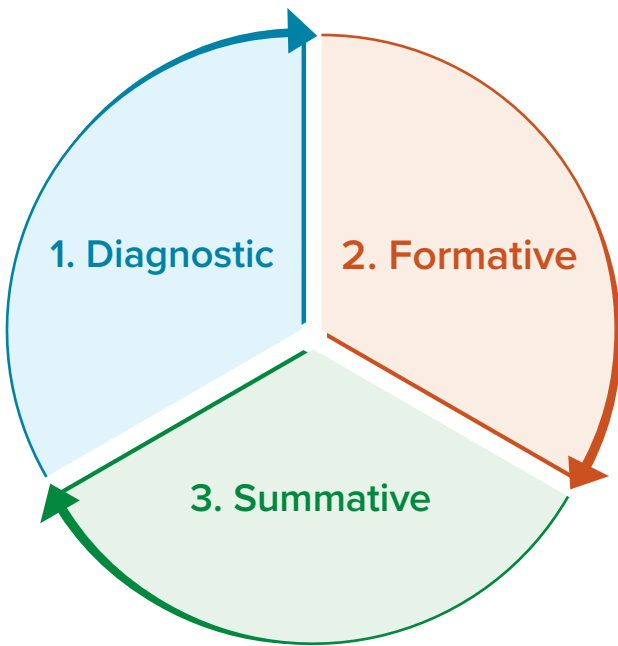
Type	Student Edition	Online Resources
Diagnostic	• Are You Ready?	• Module Diagnostic • Warm Up
Formative	• Examples • Lesson Practice including Skills, Application, Higher Order Thinking • Cheryl Tobey Formative Assessment Probe • Check	• Items from Student Edition • Extra Examples • Extra Practice • Spiral Review • Put it All Together • Exit Ticket • *ALEKS*
Summative	• Module Review	• Module Tests Forms A and B • Performance Task • Benchmark Assessments • End-of-Course Assessment

Print and Digital Formats

All *Florida Reveal Math* assessments are available for either print or digital administration. Print assessments can be found in the **Assessment Resource Book** or the **Digital Teacher Center** as editable Word documents or PDFs.

Data to Drive Instructional Insights

Actionable data is a click away in the Digital Teacher Center with the *Florida Reveal Math* Reporting Dashboard.
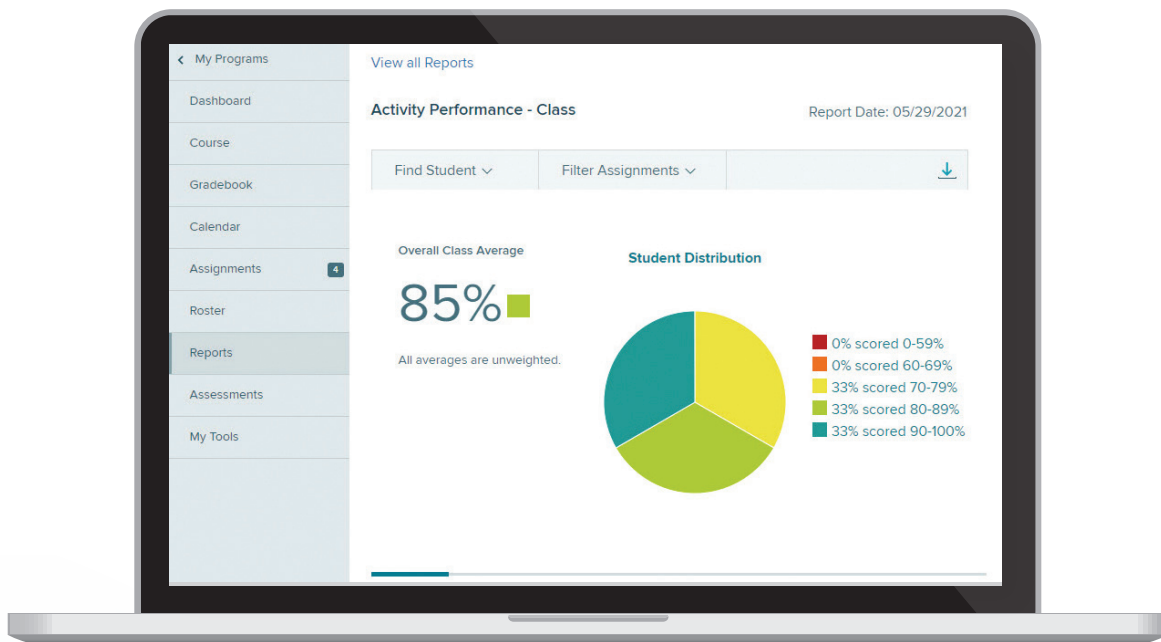
Activity Performance

Activity Performance Report
Teachers can review useful data points for class activities, including item analysis by student and class, as well as overall performance.

Standards Performance

B.E.S.T. Performance Report
Teachers can access information on class performance by Florida's B.E.S.T. standards, including a cumulative score by class and student.

Provide Targeted Intervention and Differentiation

Identify Unfinished Learning

Before beginning the module, assign the **Module Diagnostic** to evaluate student readiness for the module content.

Question 4
Which ordered pair names point P?

- A) $(-3, 2)$
- B) $(-2, 3)$
- C) $(2, -3)$
- D) $(3, -2)$

Name _____ **Period** _____ **Date** _____ **Score** _____

Module 4 – Diagnostic
Equations of Linear Functions

1. Evaluate the expression when $a = 3$, $b = 1.5$, and $c = -4$.

   $a + 2(b - c) =$ _____

2. Evaluate $y = \frac{2}{3}(5) + \frac{1}{2}$.
   - A. $y = \frac{23}{6}$
   - B. $y = \frac{11}{3}$
   - C. $y = \frac{11}{5}$
   - D. $y = \frac{7}{6}$

3. Solve $y = 3x - 7$ for x when $y = -2$.
   - A. $x = -3$
   - B. $x = -13$
   - C. $x = \frac{5}{3}$
   - D. $x = \frac{19}{3}$

4. Which ordered pair names point P?
   - A. $(-3, 2)$
   - B. $(-2, 3)$
   - C. $(2, -3)$
   - D. $(3, -2)$

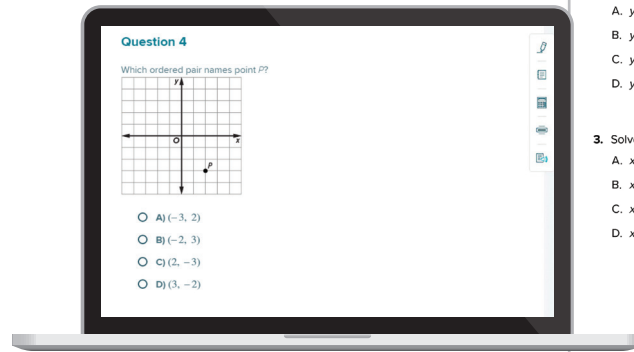5. Solve $6x - 9y = 2$ for y.
   - A. $y = -\frac{2}{3}x + \frac{2}{9}$
   - B. $y = \frac{2}{3}x - \frac{2}{9}$
   - C. $y = \frac{2}{3}x - 2$
   - D. $y = \frac{2}{3}x + 2$

6. Solve $x - 9 = 3 + y$ for y.

Targeted Intervention

Review student scores to evaluate and determine the appropriate resources to assign.

Diagnose and Intervene

Assign the **Module Diagnostic** to students before you begin the module. Use students' scores to determine their readiness for the module. The chart below can be used for remediation options.

Skill	Item(s)	Benchmark(s)	Remediation Options	Intervene Before Lesson
Graphing ordered pairs	1, 2, 6, 8, 10	MA.6.GR.1.1	• Take Another Look: Functions • Review Learn & Example: Identify Ordered Pairs • ALEKS Lesson: Ordered Pairs • Take Another Look: Domain and Range • Take Another Look: Identify Functions in Tables and Lists • Take Another Look: Identify Functions in Graphs • Take Another Look: Function Notation	2-1
Evaluating algebraic expressions	3, 4, 5, 7, 9	MA.6.AR.1.3	• Take Another Look: Functions • Review Learn & Example: Evaluating Algebraic Expressions • ALEKS Lesson: Writing Expressions and Equations • Take Another Look: Variables on Both Sides	2-1

ALEKS
Using adaptive questioning, *ALEKS* quickly and accurately determines what topics a student knows and is ready to learn next.

Take Another Look Prerequisite Mini-Lessons*
Targeted prerequisite student-driven activities support students who need a review.
* Florida Reveal Algebra 1

Review Activities
Each **Review Learn** and **Review Example** provides students with a key concept overview and several examples to meet their prerequisite skill needs.

Enrich Learning with Differentiated Resources

During instruction, after reviewing formative assessment sources and data, choose from a variety of differentiation options to meet the needs of your students.

Take Another Look On-Level Reteach Mini-Lessons*

Supplement core instruction with built-in reteach support, including **Model**, **Interactive Practice**, and **Data Check** resources.

* Florida Reveal Algebra 1

Learn

Real-world situations can be represented by functions. Watch to find out how the shape of the graph tells you whether the function is linear or nonlinear.

TICKET

Credit

Now you will determine whether a graph of a function is linear or nonlinear by analyzing the shape of the graph.

Quick Review Math Handbook

This resource provides additional instruction and practice for prerequisite skills.

2·4 Parallel Lines and Transversals

PARALLEL LINES AND TRANSVERSALS 2·4

Relationships Between Lines and Planes

When two lines lie in the same plane and do not intersect, they are **parallel**. Lines that do not intersect and are not coplanar are **skew lines**.

In the figure, l is parallel to m, or $l \parallel m$. You can also write $\overline{PQ} \parallel \overline{RS}$.

Similarly, if two planes do not intersect, they are **parallel planes**.

EXAMPLE Identify Parallel and Skew Relationships

Refer to the figure below to identify each of the following.

a. all planes parallel to plane ABD
   plane EFH
b. all segments parallel to $\overline{CG}$
   $\overline{BF}$, $\overline{DH}$, and $\overline{AE}$
c. all segments skew to $\overline{EH}$
   $\overline{BF}$, $\overline{CG}$, $\overline{BD}$, $\overline{CD}$, and $\overline{AB}$

82 HotTopic 2

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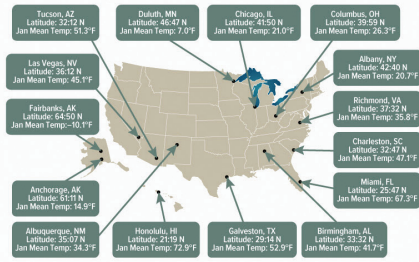
Extension Activities

Digitally assign to students who are ready for a challenge.

Latitude and Temperature

The *latitude* of a place on Earth is the measure of its distance north or south from the Equator. What do you think is the relationship between a city's latitude and its mean January temperature?

Latitudes are given in the format degrees:minutes. There are 60 minutes in one degree of latitude. To write a latitude in decimal form, divide the number of minutes by 60, and add this to the number of degrees of latitude. For example, $32 : 12 \, N = 32 + \frac{12}{60} \, N = 32.2 \, N$.

The map shows various cities and their corresponding latitudes and mean January temperatures.

Tucson, AZ Latitude: 32:12 N Jan Mean Temp: 51.3°F
Duluth, MN Latitude: 46:47 N Jan Mean Temp: 7.0°F
Chicago, IL Latitude: 41:50 N Jan Mean Temp: 21.0°F
Columbus, OH Latitude: 39:59 N Jan Mean Temp: 26.3°F
Las Vegas, NV Latitude: 36:12 N Jan Mean Temp: 45.1°F
Albany, NY Latitude: 42:40 N Jan Mean Temp: 20.7°F
Fairbanks, AK Latitude: 64:50 N Jan Mean Temp:–10.1°F
Richmond, VA Latitude: 37:32 N Jan Mean Temp: 35.8°F
Charleston, SC Latitude: 32:47 N Jan Mean Temp: 47.1°F
Anchorage, AK Latitude: 61:11 N Jan Mean Temp: 14.9°F
Miami, FL Latitude: 25:47 N Jan Mean Temp: 67.3°F
Albuquerque, NM Latitude: 35:07 N Jan Mean Temp: 34.3°F
Honolulu, HI Latitude: 21:19 N Jan Mean Temp: 72.9°F
Galveston, TX Latitude: 29:14 N Jan Mean Temp: 52.9°F
Birmingham, AL Latitude: 33:32 N Jan Mean Temp: 41.7°F

Complete Exercises 1-3.

Video Library

Students have access to help videos, **Foldables** support videos, and **Personal Tutor** concept videos for reference. Teachers may choose to assign them for additional student support.

Mrs. Dawson

Determine whether each equation is a linear equation. Write yes or no. If yes, write the equation in **standard form**.
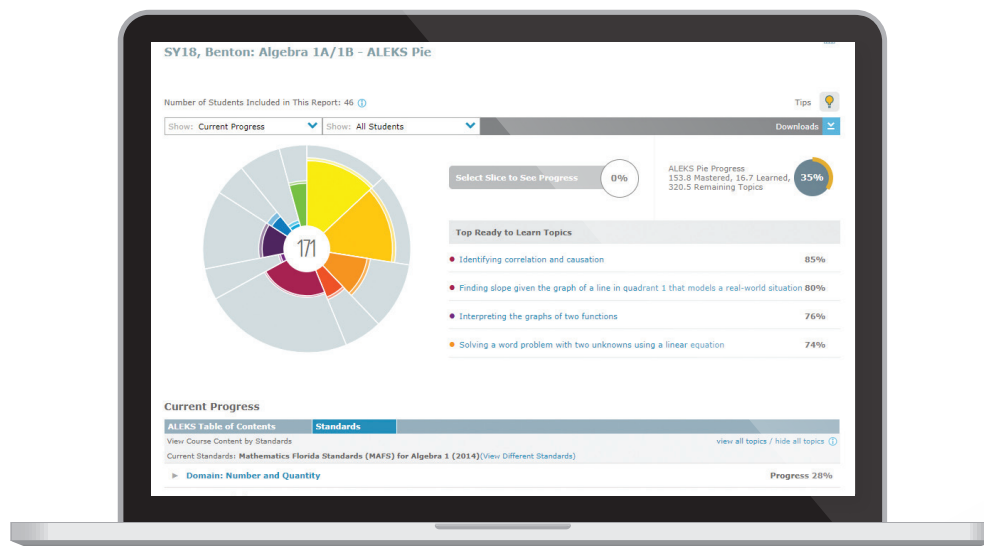
$2 + 5y = -x$ $y + 3 = x^2$

yes

standard form
$Ax + By = C$
$2 + 5y = -x$

Meet Students at Their Level with *Florida Reveal Math* and *ALEKS*

Florida Reveal Math with *ALEKS* provides students the added advantage of a personalized learning pathway continuously adapting to them.

The Perfect Pairing for Personalized Math Learning

- *ALEKS* can be used effectively for all students, targeting the exact topics each is most ready to learn. This approach minimizes frustration, accelerates learning momentum, and builds confidence.

- Teachers can create *ALEKS* assignments directly connected to *Florida Reveal Math*, so students work on lesson-level content with prerequisite topic support.

- For students who need more challenge, *ALEKS* provides additional extension opportunities and allows students to progress at their own pace.

- *ALEKS* course content spans from Grade 3 to Precalculus for infinite options for course content support.

- An automatic cycle of assessment in *ALEKS* ensures each student's learning pathway is continually refreshed.

- *ALEKS* reports provide visibility at a granular level to measure progress by student, topic, or Florida's B.E.S.T. Standards.

Target Common Misconceptions

Math Probes, written by Cheryl Tobey, are designed to uncover students' misconceptions within every module. These probes, placed at the point-of-use, allow teachers to make sound instructional choices targeting specific mathematics concepts.
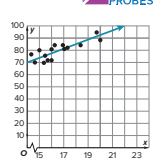
Short, Formative Assessment

Each Math Probe features three to four items that are split into two parts:

1. **Part One** assesses students' understanding of concepts.

2. **Part Two** asks students to share their thinking about the concepts.

Written by Contributing Author, Cheryl Tobey

Take Action

The teacher support materials that accompany the Math Probes are designed around a three-part ACT cycle:

- **A**nalyze the Probe

- **C**ollect and Assess Student Work

- **T**ake Action. Provided remedies help teachers correct misconceptions quickly and efficiently.

A — **Analyze the Probe**

Review the probe prior to assigning it to your students. In this probe, students determine why the equation for their best-fit line differs from the equation generated by their graphing calculator, and explain their choices.

Targeted Concept
Understand how scale is used to determine and analyze the line of best fit.

Targeted Misconceptions
- Students may not realize the importan[t] [   ] interpreting lines of best fit.
- Students may not understand that the y-intercept of a l[ine] the value of y when the x-value is equal to 0, not the le[...] the graph.
- Students may rely on what a graph "looks" like rather t[han] understanding a regression model as the line of best fi[t] using the data points.

C — **Collect and Assess Student Answers**

If the student selects...	Then the student likely...
Student 1. agree **Student 2.** disagree **Student 3.** agree	• does not recognize that the y-axis is not part of the graph. • does not realize that this scale affects how the y-intercept is found and/or interpreted. • does not recognize that both equations have similar slopes but very different y-intercepts.
Student 4. agree	has generalized that the calculator is more accurate without understanding that the estimated best-fit line is inaccurate.

T — **Take Action**
After the Probe Design a plan to address any possible misconceptions. You may wish to assign the following resources.
- ALEKS Scatter Plots and Lines of Best Fit
- Lesson 4-3, Learn, Example 2

Revisit the probe at the end of the module to be sure that your students no longer carry these misconceptions.

Efficiently Plan for Instruction

See All Lesson Resources at Once

Teachers can view all the lesson resources and plan from organized lesson landing pages within the **Digital Teacher Center** that align with their print Teacher Edition layout. Lessons can be added to the calendar and easily accessed from the **Teacher Dashboard** on the day of learning.
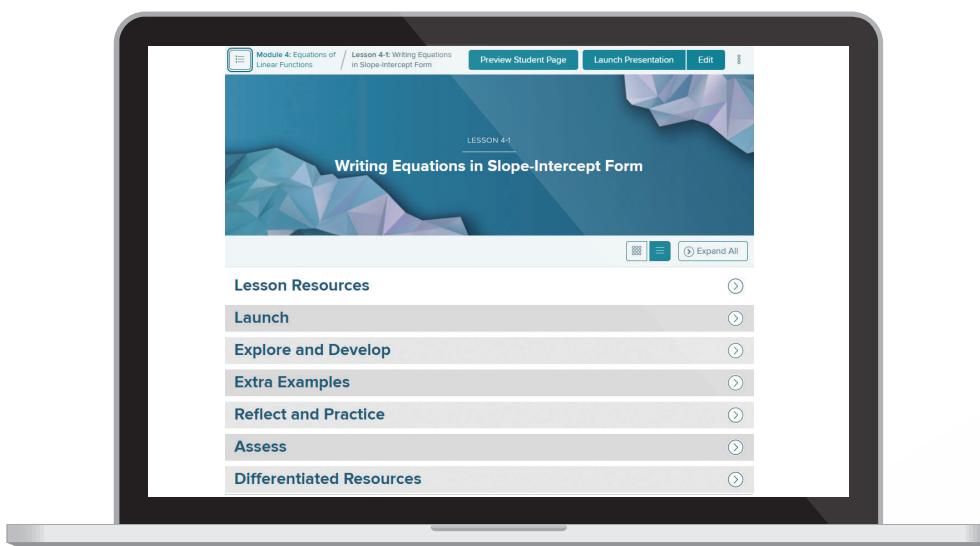
Plan to Facilitate Productive Learning

Embedded at the point-of-use within the *Florida Reveal Math* Teacher Edition, NCTM's **Effective Teaching Practices** and research-based routines help guide instruction.

These eight practices include:

- **ESTABLISH** mathematical goals to focus learning.
- **IMPLEMENT** tasks that promote reasoning and problem-solving.
- **USE AND CONNECT** mathematical representations.
- **FACILITATE** meaningful mathematical discourse.
- **POSE** purposeful questions.
- **BUILD** procedural fluency from conceptual understanding.
- **SUPPORT** productive struggle in learning mathematics.
- **ELICIT AND USE** evidence of student thinking.

Access and Customize Lesson Presentations

Interactive Lesson Presentation

Teachers have a ready-made Interactive Lesson Presentation with embedded eTools, videos, and animations. This presentation is easily customizable: hide resources or upload teacher files, links, and slides.

Customize Lesson Presentations

Downloadable PowerPoint versions of the lesson presentation allow teachers to customize slide content or teach offline.

Access Content Through Multiple Learning Management Systems

The McGraw Hill Open Learning Platform currently integrates with the following Federated Standards: SAML 2.0 IDP, LTI 1.0, and Clever. Integration is possible with most learning management systems that support these standards, including but not limited to:

- Canvas
- Schoology
- Google Classroom
- Blackboard

Instructional Design Informed by Experts

McGraw Hill Learning Scientists teamed up with expert authors to create a program guided by validated academic research and classroom best practices.

Authors/Advisors

Cathy Seeley, Ed.D.
Past President of NCTM, 2004–2006
Thought leader and facilitator of high-quality mathematics education for every student.

Walter Secada, Ph.D.
Professor of Teaching and Learning at the University of Miami
Advocate for improving education for English Language Learners and equity in mathematics education.

Raj Shah, Ph.D.
Founder, The Math Plus Academy and The Global Math Project
Expert in strong mathematics instruction.

Cheryl Tobey, M.Ed.
Co-Author of 12 books on formative assessment
Facilitator of strategies that drive informed instructional decisions.

Dinah Zike, M.Ed.
Founder, Dinah Zike Academy, an accredited K12 professional development center
Creator of learning tools that make connections through visual-kinesthetic techniques.

## Professional Learning Advisors

Nevels Nevels, Ph.D.
Expertise in the development of mathematics knowledge for teachers.

Jennifer Estep, M.Ed., B.S.Ed.
Leader in the transition to Florida's B.E.S.T. Standards for Mathematics.

Expert-Led Professional Learning

Teachers and administrators have access to a comprehensive set of self-paced digital resources available within the Digital Teacher Center for each grade.
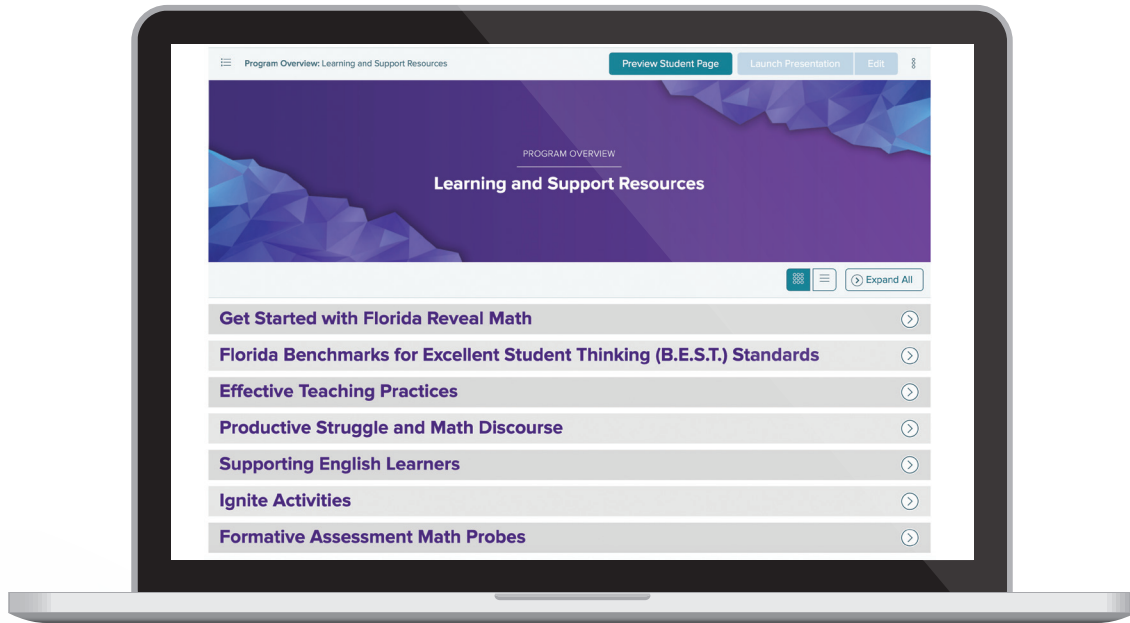
Quick Start

Teachers can get up to speed quickly with the *Florida Reveal Math* resources and curriculum overview.

Digital Walkthrough

Digital platform guidance from a teacher view and a student view.

Instructional Videos

Florida Reveal Math authors and experts present guidance and tips on the program.

Cathy Seeley:

- Productive Struggle and Discourse

- Fostering a Positive Math Mindset

Raj Shah:

- Ignite! Activities

**Cheryl Tobey:**

- Math Probes

Teacher Resources

Print Resources

Teacher's Edition, 2-Volume

These spiral-bound Teacher Editions provide the essentials to plan and implement classroom instruction focused on Florida's B.E.S.T. Standards. Inside, you will find teacher instructional supports, including NCTM's Effective Teaching Practices, Math Language Routines, and ELL and differentiation recommendations.
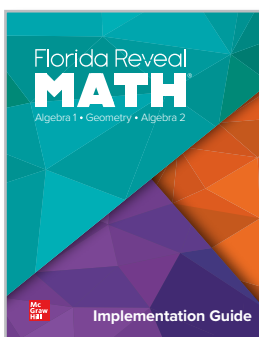
Implementation Guide

The Implementation Guide includes a comprehensive program overview and user guide for *Florida Reveal Math*.
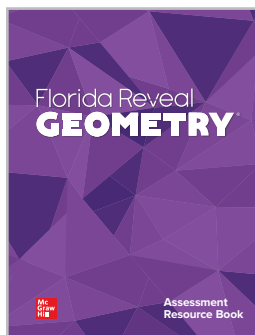
Assessment Resource Book

The Assessment Resource Book contains the blackline masters for the following *Florida Reveal Math* assessments:

- Module Diagnostic
- Module Assessments
- Benchmark Assessments
- End-of-Course Assessment
- Performance Tasks
- Exit Tickets

Digital Teacher Center Resources

Through the Open Learning Platform, teachers have an easy-to-use portal for planning, teaching, and the validation of learning. The teacher experience includes:

- Teacher Edition eBook
- Interactive Lesson Presentations
- Downloadable, Editable Lesson Presentations
- ALEKS®
- Program Quick Start Course
- Expert Insight Videos
- Assessment Blackline Masters
- Auto-Scored, Customizable Online Assessment

- Differentiated Resources
- Auto-scored, Customizable Interactive Practice
- Dynamic Digital Practice
- Interactive Spiral Review
- Web Sketchpad® Activities
- eToolkit (Virtual Manipulative Suite)
- Video Library
- Practice and Assessment PDFs
- Teacher and Administrator Reporting
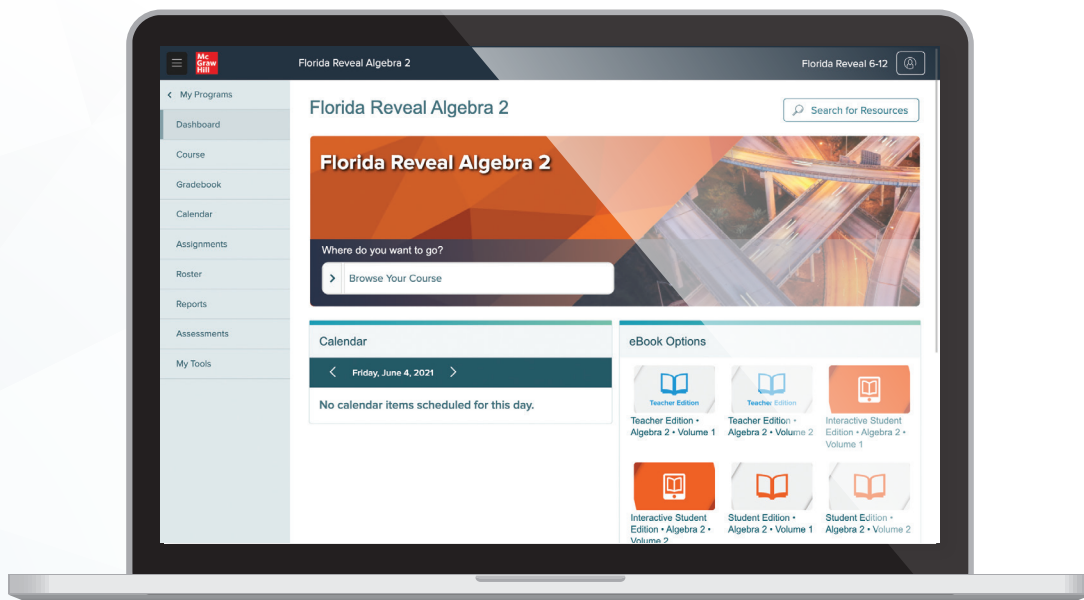
Log in to Review the Digital Teacher Center

my.mheducation.com Username: **flreveal612** | Password: **flreveal612**
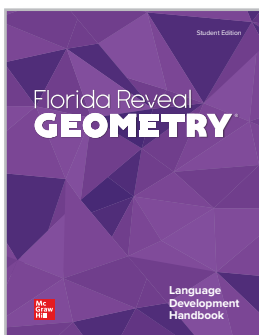
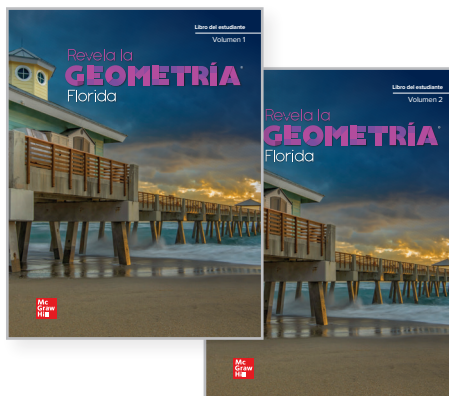# Student Resources

Print Resources

Student Edition, 2-Volume

Available in print and interactive formats, the Student Editions are write-in, three-hole punched, and perforated for easy organization in a binder. Students engage in learning through the use of notetaking, problem-solving, discourse, and reflection.
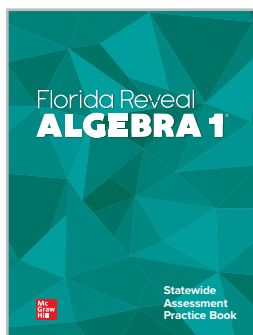

Spanish Student Edition, 2-Volume

A fully translated Spanish Student Edition for students who need to access learning in their first language.

Language Development Handbook

Designed to provide academic language support for all students, including English Language Learners, in every lesson.


Statewide Assessment Practice Book

Created to provide students with weekly B.E.S.T. standards-based practice in preparation of end-of-course assessments.

Print Resources (Cont.)

## McGraw Hill ACT® Math Practice Book and McGraw Hill SAT® Math Practice Book

Constructed to provide students practice leading up to either the ACT® or the SAT® tests, these practice books cover the concepts and question types found on each test.
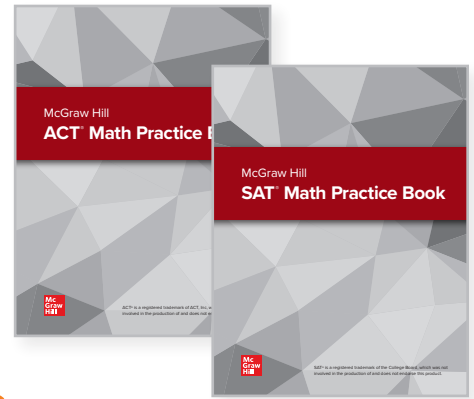
Digital Student Center Resources

Students have access to a robust set of engaging digital tools and interactive learning aids, including:

- Interactive Student Edition eBook
- Student Edition eBook
- Dynamic Digital Practice
- Interactive Digital Practice

- ALEKS®
- Web Sketchpad® Activities
- eToolkit (Virtual Manipulative Suite)

- eGlossary
- Multilingual eGlossary
- Selected Answers
- Video Library
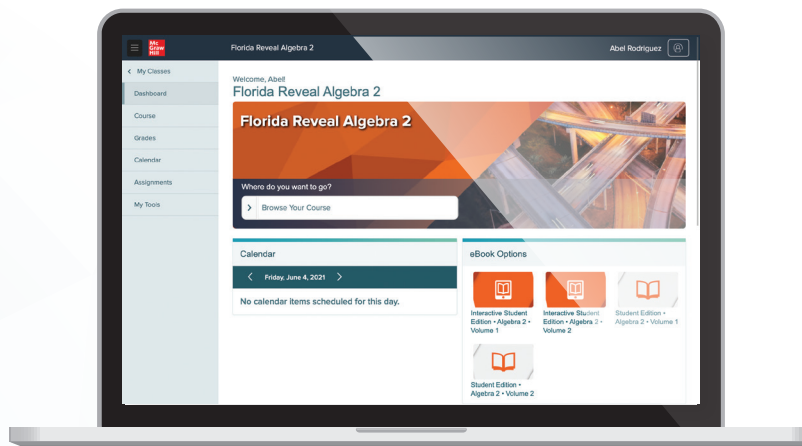
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