



A new vision for High School Mathematics

# enVision™ A|G|A

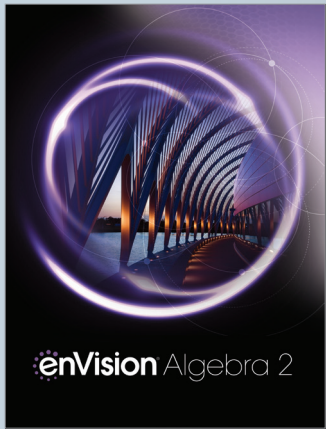
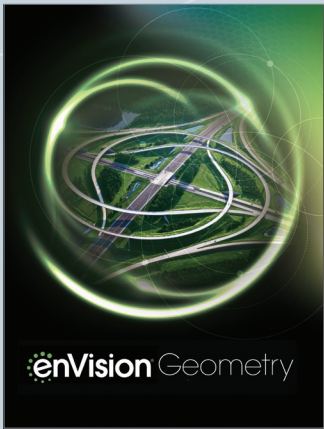
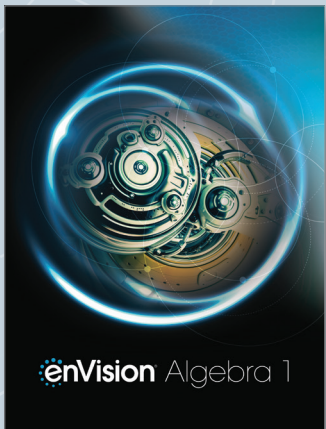
Algebra 1   Geometry   Algebra 2



Realize the power of



Savvas Realize™ is the online learning management system for **enVision Algebra 1**, **Geometry**, and **Algebra 2** for Mississippi. This full suite of personalized teaching and learning tools is just a click away.



Blended Instruction

Go Digital

This groundbreaking digital experience provides anytime—both online and offline—interactive learning.

Experience Math Work with Ease

enVision A|G|A provides a wealth of multimedia and interactive content to explain and reinforce complex mathematical concepts. Our simple-to-use program allows you to quickly find individual students, groups of students, or the whole class.

Personalize Instruction

enVision A|G|A includes a suite of resources to help you effectively and efficiently meet the needs of all students.

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Whether you teach fully digital or with a blend of print and digital, you can be assured that your students will gain a deeper understanding of mathematics.

# Engaged & Personalized Learning

**enVision A|G|A** allows students to easily access lesson content and embedded interactives. Students can take notes using the integrated notebook and submit digital assignments and assessments through the system.



## Habits of Mind

Questions help students develop the thought processes and skills used by proficient mathematical thinkers.

SAVVAS  
**realize**™

Seamless, innovative, and integrated digital experience

This cutting-edge eText

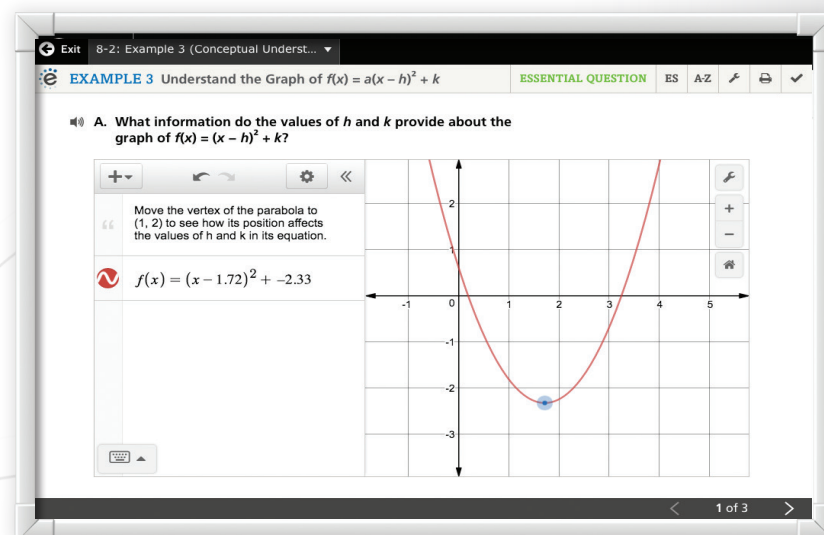
- Provides students with both **online and offline** access to program materials
- Includes **embedded interactive digital activities** at point of use
- Allows students to **respond** to probing questions throughout the lesson.
- Available on a wide array of devices

**desmos**

## Active Learning

The digital interactives powered by Desmos foster conceptual understanding. These highly visual interactives bring mathematical concepts to life.

- Visual learning experience
- Focus on the math, not the tool
- **Embedded within Realize Reader at point of use**



## Mathematical Modeling

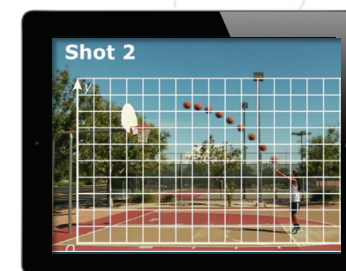
Mathematical Modeling in 3 Acts are collaborative tasks that ask students to develop a mathematical model to explain a reality-based problem. These high-interest, low-entry tasks develop students' conceptual understanding, procedural fluency, and adaptive reasoning as they test out different models and conjectures to answer the question posed.

### Act 1: The Hook



An engaging video introduces the question and gets students talking.

### Act 2: Model with Math

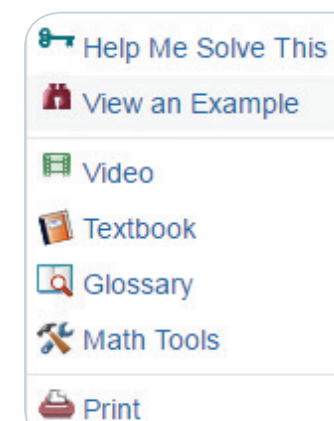


Students determine what resources they need and develop a solution to answer the question.

### Act 3: Model with Math



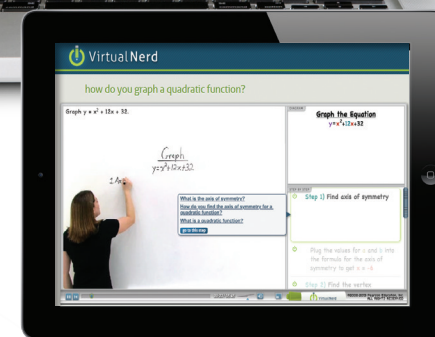
The final video reveals the answer and student analyze the results.



## Individualized Learning Pathway

Content and technology come together to create a tailored pathway for each student's unique needs - all available and built within **enVision A|G|A**.

- **Individual Study Plans** fill in gaps on prerequisite knowledge and help students focus where they need to focus to experience success in high school mathematics.
- **MathXL® for School** embedded, auto-graded assignments provide instant feedback with learning aids that act as student's personal tutor, available 24-7.
- **Adaptive Practice powered by Knewton** gives struggling students a chance to practice concepts they have yet to master, while more advanced learners can stay engaged.
- **Virtual Nerd Tutorial Videos**, available in every lesson, allow students to drill down through videos to review prerequisite content.

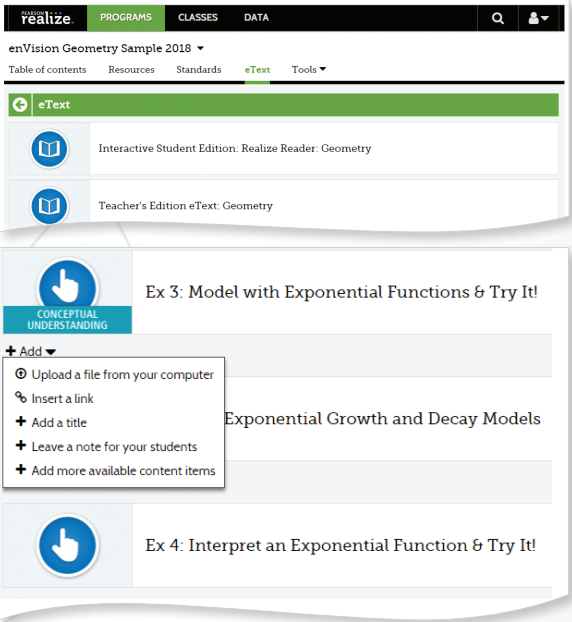


# Manageable & Flexible Teaching

enVision A|G|A makes it easy to customize, leverage technology and save hours on administrative tasks. Use ready-made assessments, practice, remediation, and reports.

## Customize Instruction

- Editable interactives powered by Desmos are pre-built and embedded at point of use. No hassle or prep time required.
- Additional Anytime Tools powered by Desmos allows teachers or students to build their own classroom interactivities.
  - Graphing calculator
  - Scientific calculator
  - Geometry Tools
- Customize the table of contents through a simple drag and drop process.
- Modify or create a lesson with easy drop down menus.
- Powerful search functionality enables keyword or standard search to easily find content.



## Assess and Differentiate

### Assessment Suite

Technology enhanced items are in the same format that students will experience on next generation assessments. enVision A|G|A provides a suite of ready-to-use diagnostic, formative, and summative assessments that can be administered both in print and digitally:

1. Course- and Topic-Level Diagnostic Assessments
2. Lesson Checks and Quizzes
3. Topic Assessments and Performance Tasks
4. End-of-Course Assessment
5. Next Generation Practice Assessments
6. Build Your Own Customized Assessment

Evaluate  $f(x) = \left(\frac{2}{3}\right)^x$  for  $x = -3$  and  $x = 0$ . Drag the correct solution to each box.

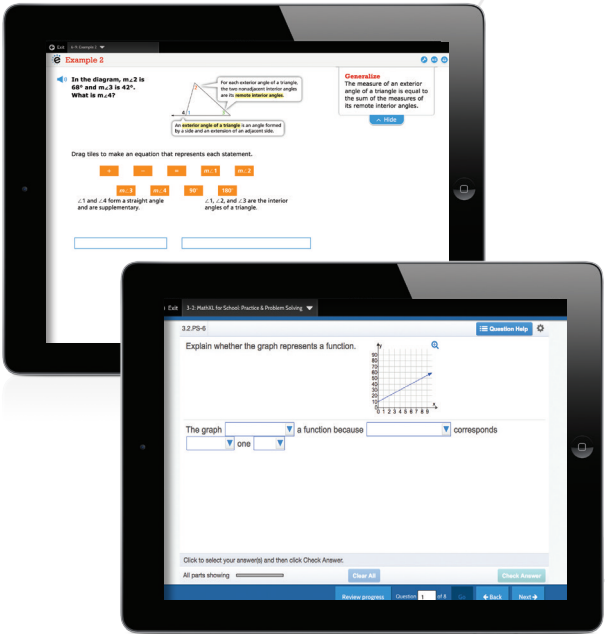
$f(-3) = \frac{27}{8}$   $0$   $\frac{9}{4}$   $1$

$f(0) = \frac{-8}{27}$

Which of the following are true of  $\overline{AB}$  given A(9, 5) and B(15, 2)? Select all that apply.

- ☐ A. The midpoint is (12, 3.5).
- ☐ B. The slope of the perpendicular bisector is  $-\frac{1}{2}$ .
- ☐ C. The slope of the perpendicular bisector is 2.
- ☐ D. The slope of the segment is  $-\frac{1}{2}$ .
- ☐ E. The distances from the endpoints of the segment to any point on the perpendicular bisector are equal.

Digital Intervention Instruction example



Digital Intervention Practice exercise

## Teacher Support

- **Effective Teaching Practices (ETP)** and professional development are embedded throughout the Teacher's Edition.
- **Additional Examples** allow for further explicit instruction if needed.
- **A complete library of resources** to support planning for Response to Intervention and teaching English Language Learners, including:
  - Point-of-use differentiation
  - ELL proficiency levels of support
  - Spanish closed captioning for video tutorials
  - Multilingual glossary
  - English/Spanish visual glossary

## Adaptive RTI

- **Lesson Quizzes** provide a quick way to determine the need for intervention.
- **Auto-assigned Lesson Differentiated Options** include Remediation, Additional Practice, or Enrichment.
- **Adaptive Practice Powered by Knewton** in every lesson supports struggling students with prerequisite skills not yet mastered and moves advanced students through the skill more efficiently.
- **Individualized Study Plans** provide a personalized learning pathway based on the results of each Topic Readiness Assessment.

**CRITIQUE & EXPLAIN**

**GOAL** To introduce how a translation affects the graph of a quadratic function

**Before** **WHOLE CLASS**

**CONNECT REPRESENTATIONS ETP**

**Q:** How does the vertex of Graph B compare to the vertex of Graph A? [The vertex of Graph B is higher on the y-axis than the vertex of Graph A.]

**ADDITIONAL EXAMPLES**

**Example 2A:** Students identify the smallest angle of a triangle with this additional example.  
Q: What is order of the sides of the triangle from shortest to longest? [BP, DP, AP]  
Q: How can you use the ordered list of sides to write an ordered list of the angles of the triangle? [Answers may vary. Sample: ...]

**Example 5A:** Students find the possible lengths of the third side of a triangle with this additional example.  
Q: Is this the only triangle with side lengths 12 and 20? Explain. [No; there are many different triangles with those side lengths.]  
Q: Is it possible that DP is the longest side of the triangle? Is it possible that DP is one of the two shorter sides of the triangle?

**ELL English Language Learners** (Use with EXAMPLE 4)

**LISTENING BEGINNING** Explain that as a noun, graph means a diagram that represents a relationship among two or more variables. As verb, graph means to plot points or draw a curve to represent a function. Read the words and phrases below. Ask students to stand if the word or phrase refers to a graph as a noun and to sit if the it refers to graph as a verb.

**Q:** The companies profits are shown on a graph. [noun]

**Q:** Please graph the line  $y = x$ . [verb]

**Q:** How many homework problems contain graphs? [noun]

**WRITING INTERMEDIATE** Consider the words value and evaluate. Spend 3-5 minutes writing about how the words are similar and how they are different. Then, ask students to answer the questions in their journals.

**Q:** Is value a noun or a verb? [verb]

**Q:** Is evaluate a noun or a verb? [verb]

**Q:** Explain how the two words are related. [evaluate is the process used to find the value of an expression]

**PEAKING ADVANCED** Place students in groups of 2-3. Give them index cards and have them write each step from the example. Have them shuffle the cards and take turns drawing cards and putting them in order.

**Q:** Which step comes first? [Enter the data in lists on a graphing calculator.]

**Q:** Which step comes second? [Use the Quadratic Regression feature.]

**Q:** Which step comes last? [Graph the quadratic regression and use the graph to answer the question.]

**enVision Algebra 2 Sample 2018**

Table of contents Resources Standards eText Tools

**6-1: Assess & Differentiate**

- ☒ **6-1: Lesson Quiz**  
Assign Teacher resources Customize Remediation
- ☒ **6-1: MathXL for School: Reteach to Build Understanding**  
Assign Customize
- ☒ **6-1: Reteach to Build Understanding (PDF)**  
Assign Teacher resources
- ☒ **6-1: MathXL for School: Additional Practice**  
Assign Customize
- ☒ **6-1: Additional Practice (PDF)**  
Assign Info Teacher resources
- ☒ **6-1: MathXL for School: Enrichment**  
Assign Customize

# Experience enVision A|G|A online!

Review online resources.  
Sign up for **Savvas Realize™**

- 1 Type “**SavvasRealize.com**” in your browser bar and select **Sign In** on the top right.
- 2 Type in the **Username** and **Password** from below, then select **Sign In**.

User Name: **MSReviewer@enVisionAGA**  
Password: **Reviewer1**

Both the username and password are case sensitive.

You now have access to **enVision A|G|A** content — explore and enjoy.



2

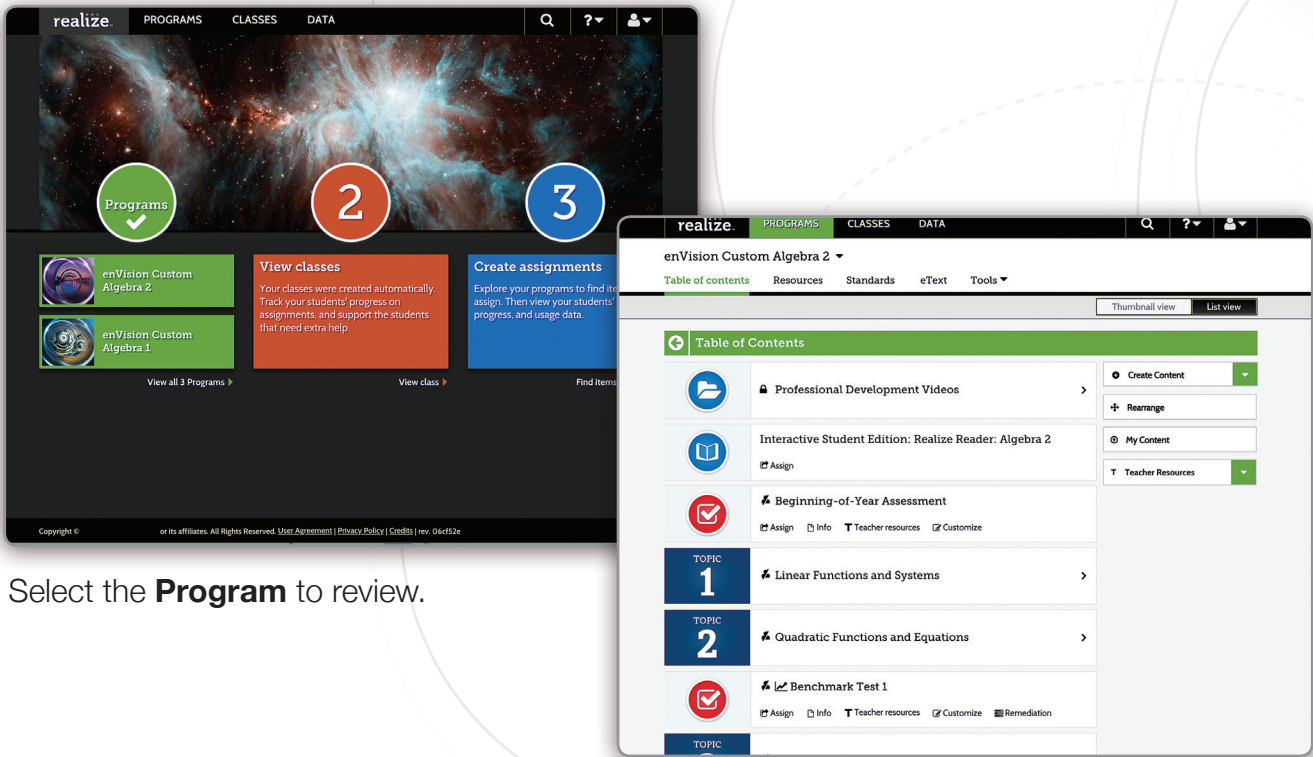
Savvas Sign In Help

Username

Password

[Forgot your username or password?](#) Sign In →

## A New Vision for High School Mathematics



Select the **Program** to review.

Table of Contents

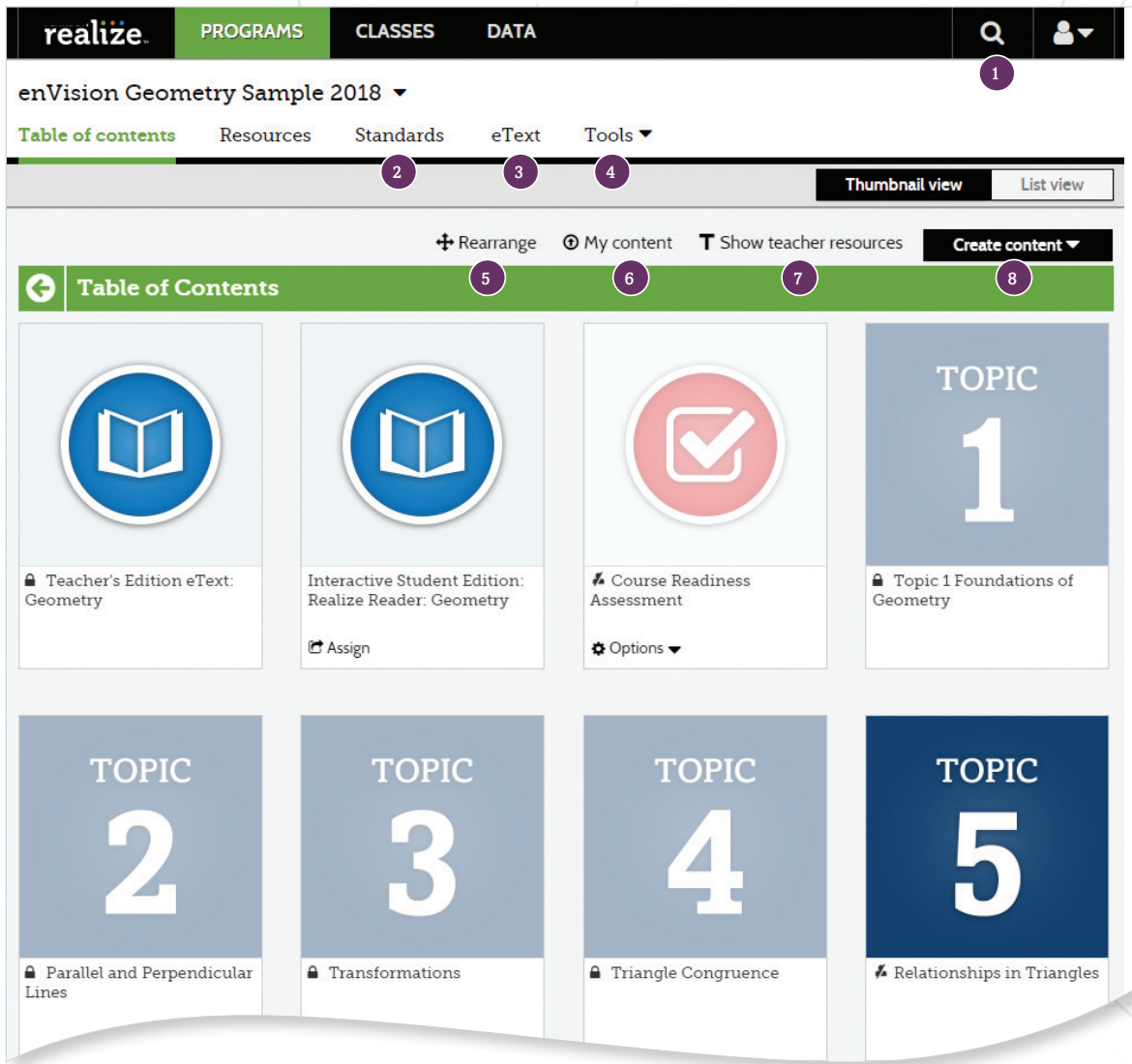


# Your Home Page

1. Keyword **Search** makes finding additional content easy.
2. Sort and search lessons by **Standards**
3. Access your student and teacher **eTexts** from the links at the top of the page.
4. Select **Tools** to view additional resources including the Anytime Tools powered by Desmos, online manipulatives, and a Spanish/English glossary.



1. Click on the **Programs** tab.
2. Select the course you wish to preview. If you need help, visit mySavvasTraining.com
3. Manage your **Classes**, assignments, and reports at-a-glance.
4. View in-depth and real time reporting in the **Data** section.

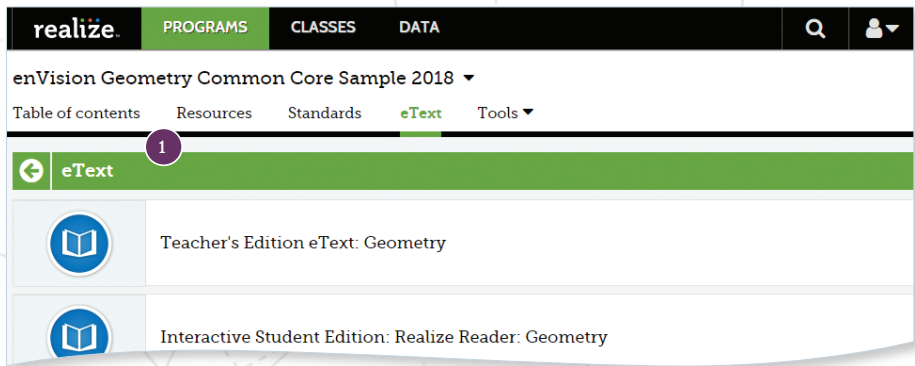


5. Select **Rearrange** to customize the sequence of the curriculum.
6. Select **My Content** to edit content you previously created.
7. Select **T Show teacher resources** to open the side panel with additional teacher resources.
8. Select **Create Content** to upload a file, add a link, or build a test.

NOTE: The Table of Contents is seen here in Thumbnail View. A List View option is also available.

# Teacher Edition eText

1. To view the digital Student and Teacher's Edition, click **eText** on top of the page.



2. Click Teacher's Edition.

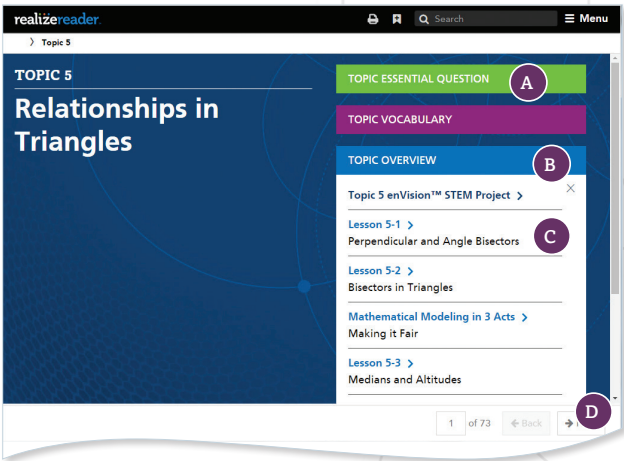


- A. Highlighting
- B. Bookmarks
- C. Sticky Notes Annotations
- D. Projector View
- E. Search

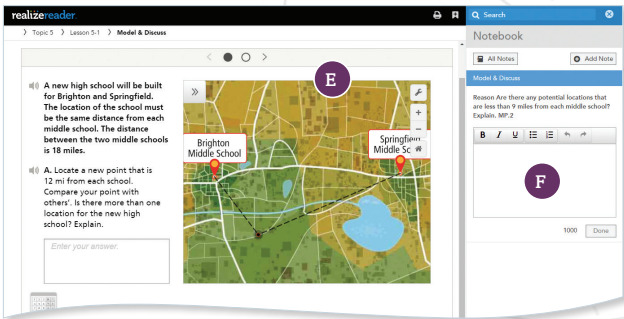
# Student Edition Realize Reader

The easy-to-navigate Student Edition provides a groundbreaking digital experience with anytime—online or offline—interactive learning.

1. For review purposes, Select **Geometry** and click **Interactive Student Edition: Realize Reader: Geometry**. Select Topic 5.



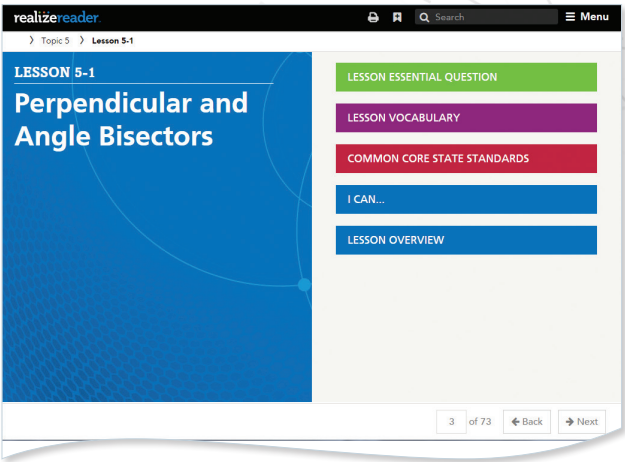
- A. Expand and collapse the tabs on the right to view Essential Question, Vocabulary, Topic Overview
- B. To view lesson content, select Topic Overview.
- C. Select Lesson 5-1: Perpendicular and Angle Bisectors
- D. Click on NEXT to turn to the next page



- E. The interactives powered by Desmos are pre-built and embedded within the student edition.
- F. Students can respond to the probing Habits of Mind questions within the integrated notebook.

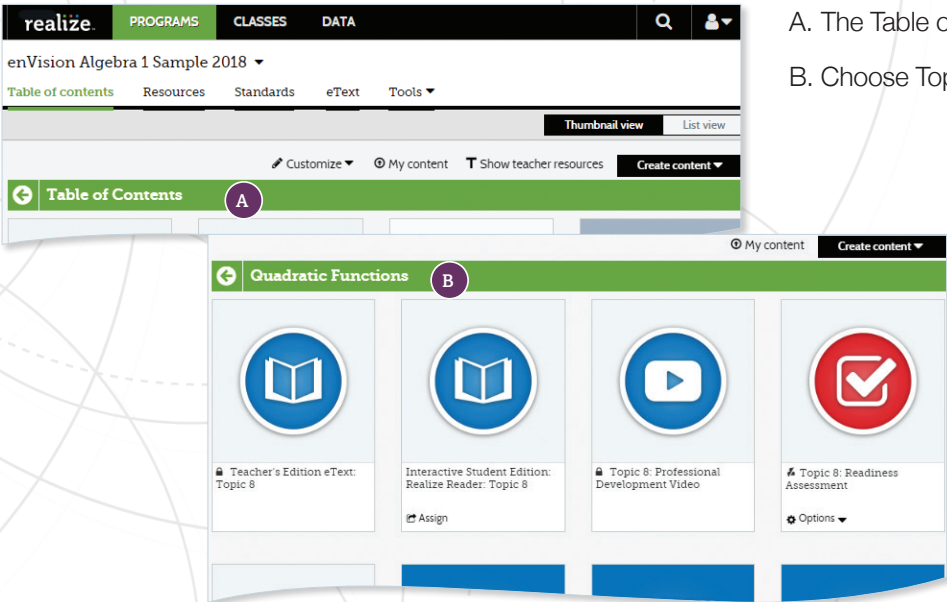
2. Page through the student edition to see all of the resources that are embedded at point of use, including:

- Pre-built Interactives powered by Desmos
- enVision STEM projects
- Mathematical Modeling in 3 Acts
- Integrated notebook to respond to Habits of Mind questions
- Annotations & Highlighting
- Bookmarks
- Anytime Tool powered by Desmos
- Additional Math Tools
- English/Spanish Glossary



# Chapter Navigation

1. For review purposes, select Algebra 1.



A. The Table of contents shows Topics.

B. Choose Topic 8 Quadratic Functions.



## Professional Development Videos

The **enVision A|G|A** authorship team gives helpful perspective on important mathematical concepts and skills in the topic.

## enVision STEM Projects

STEM Projects allow students to explore situations that address real social, economic, and environmental issues to make mathematical connections across topics.

## Mathematical Modeling in 3 Acts

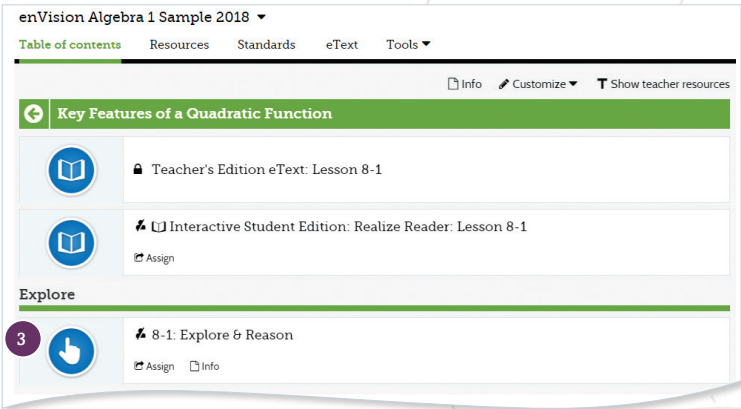
Make math relevant and develop patient problem solvers with lessons like Mathematical Modeling in 3 Acts.

## Assessment Suite

Save time with the ready-to-use diagnostic, formative, and summative assessments or build your own assignment or assessment using thousands of items, including next generation assessment tasks.

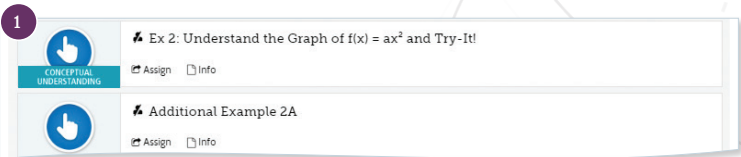
# Navigating a Lesson

## Step 1 - Explore

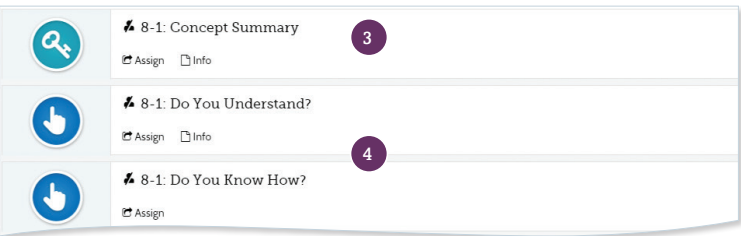
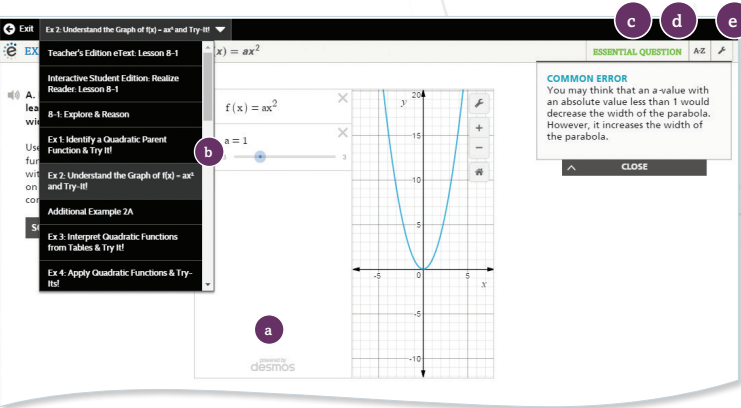


1. In **Algebra 1, Topic 8 Quadratic Functions**
2. Choose **Lesson 8-1**
3. **Step 1 - Explore:** Each lesson begins with an exploration to foster conceptual understanding through problem-solving. There are three types:
  - Explore and Reason
  - Critique and Explain
  - Model and Discuss

## Step 2 - Understand and Apply



1. Examples are clearly labeled by type:
  - Conceptual Understanding
  - Application
  - Skill
  - Proof (Geometry)
2. Click on **Example 2: Understand the Graph of f(x) = ax^2 and Try It!**
  - a. The interactives powered by Desmos are pre-built and ready for instruction. No hassle or prep time required!
  - b. The drop-down menu allows you to toggle between lesson launch & examples while presenting.
  - c. English-Spanish glossary
  - d. Interactive math tools, including the Anytime Tools powered by Desmos, let you easily edit and create your own activities
  - e. Printing options
3. The **Concept Summary** provides multiple representations to consolidate student understanding.
4. End of lesson formative assessments. **Do You Understand?** assess conceptual development. **Do You Know How?** assesses procedural fluency.



# Navigating a Lesson *continued*

## Step 3 - Practice & Problem Solving

Practice and Problem-Solving

8-1: MathXL for School: Practice and Problem-Solving

1

Assign Info Customize

8-1: MathXL for School: Mixed Review

Assign Customize

8-1: Adaptive Practice and Homework powered by Knewton

2

Assign

Exit 8-1: MathXL for School: Practice and Problem-Solving

8.1.14

How does the value of  $a$  in the function affect its graph when compared to the graph of the quadratic parent function?  
 $g(x) = 22x^2$

In what ways is the graph of  $g(x)$  different from the graph of the parent function? Select all that apply.

☐ A. The graph of  $g(x)$  opens downward.  
☐ B. The graph of  $g(x)$  is wider.  
☐ C. The graph of  $g(x)$  opens upward.  
☐ D. The graph of  $g(x)$  is narrower.

Help Me Solve This  
View an Example  
Video  
Textbook  
Glossary  
Print

a

b

c

d

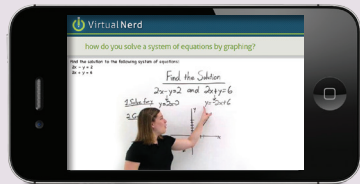
3. The embedded *MathXL® for School* in Savvas Realize allows students to use the interactive learning aids in the Question Help for instant feedback and support.

- a. **Help Me Solve This** requires student interaction on each step. Once the initial problem is complete, it algorithmically recalculates a new problem.
- b. **View an Example** walks through the steps of a similar problem.
- c. **Video** links to a Virtual Nerd Tutorial. Three different viewing windows let students review math concepts in the visual way that best helps them learn. Students can easily drill down to another video to review prerequisite content. Available with Spanish closed-captioning !
- d. The interactive online **Glossary** provides math definitions in English and Spanish. Audio, written definitions, and examples are available in both languages.

- 1. Select **8-1: MathXL® for School: Practice and Problem-Solving**.
- 2. Adaptive Practice powered by Knewton is available for every lesson.

### Virtual Nerd Mobile Math App

Students can also download the **Virtual Nerd Mobile Math app** on their mobile devices for access to Virtual Nerd video tutorials. To download the Virtual Nerd Mobile Math app, follow these steps:



- 1. Search for **“Virtual Nerd Mobile Math”** in your app store.
- 2. Select to download the app

## Step 4 - Assess & Remediate

Assess & Differentiate

8-1: Lesson Quiz

Assign Teacher resources Customize Remediation

8-1: MathXL for School: Reteach to Build Understanding

Assign Customize

8-1: Reteach to Build Understanding (PDF)

Assign Teacher resources

1. When teachers choose to assign a digital, auto-graded **Lesson Quiz**, the system gives you the option to automatically assign a differentiation assignment.

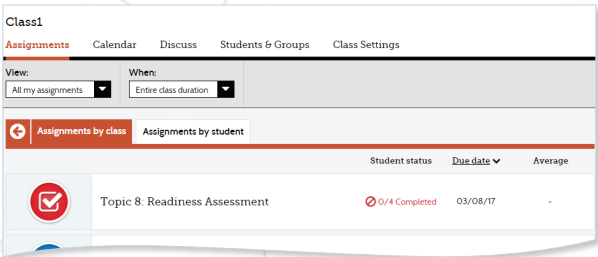
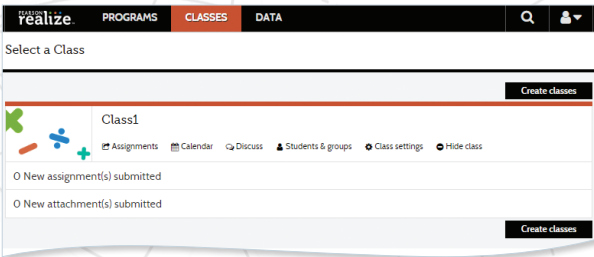
DIFFERENTIATION LIBRARY	DIGITAL	PDF
Reteach to Build Understanding	X	X
Enrichment	X	X
Additional Practice	X	X
Mathematical Literacy & Vocabulary		X
Virtual Nerd Tutorials	X	



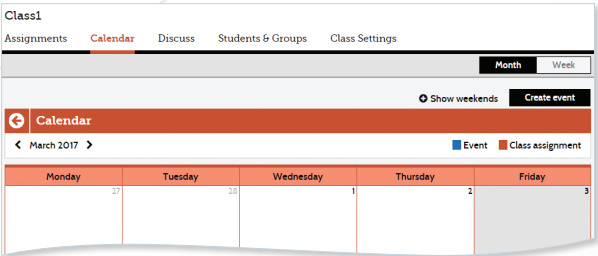
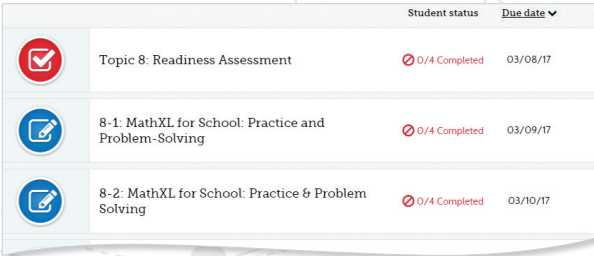
# Classroom Management Resources

## Manage Assignments and Classes

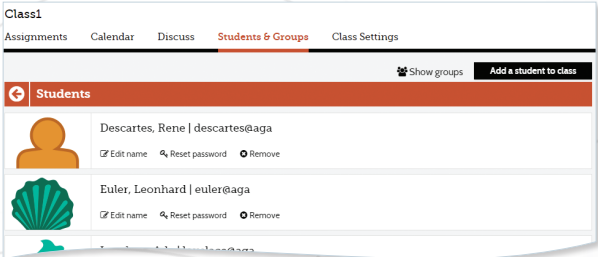
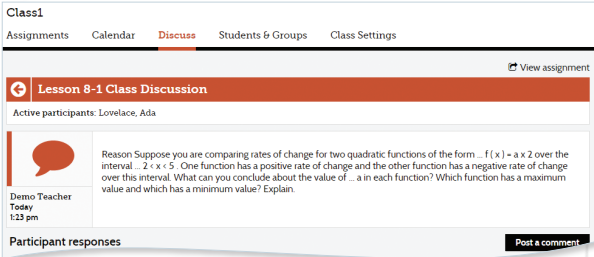
1. Use the links under the name of each Class to manage assignments, the calendar, students and groups, and class settings.
2. Click on **Assignments** to view assignment status for the class.



3. Click on the assignment link to view status for the class or each student. Make edits to the assignment and preview the assignment on the right.
4. Click on **Calendar** to view all class assignments by week or month.



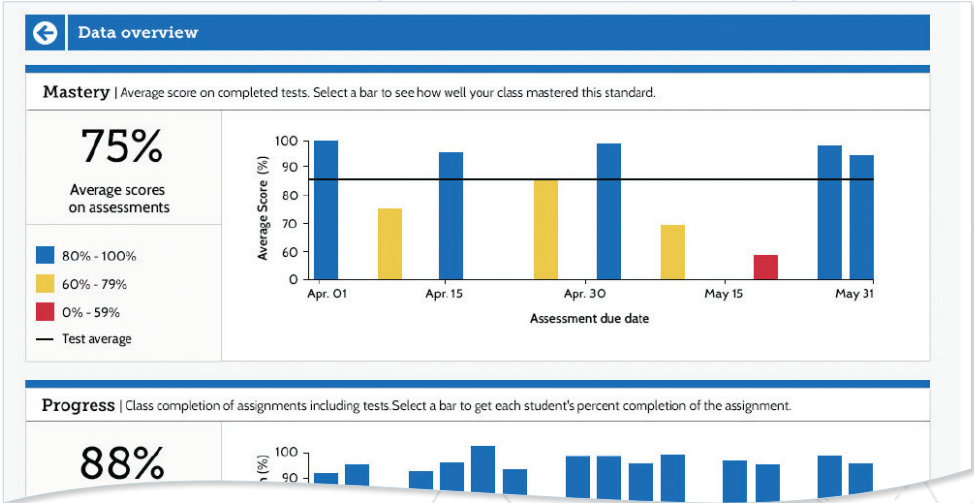
5. Click on **Discuss** to create a prompt for a class discussion.
6. Click on **Students & Groups** to view student information, add students, and view assignments.



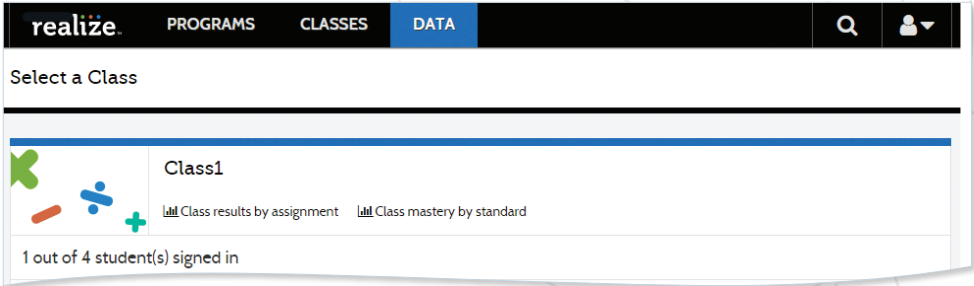
# Data

## Track, Record, and Analyze Data

1. Click on **Data** to view student data based on assigned work.



2. Click on **Class Name** to view assessment items and monitor scores.



3. Instantly access student and class data that shows standards coverage and mastery, online activity, and overall progress

Gerstad, Lauren	Past due	Not Started	-
Hedges, Jordan	Past due	In Progress	-
Kahus-Saccio, Quinn	09/12/13	Completed	90%

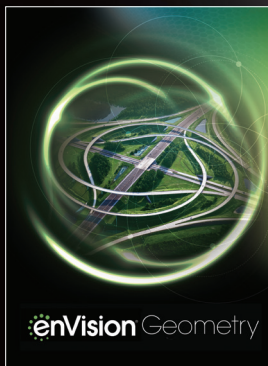
4. Click to reveal more detailed information about student mastery, progress, and usage.

Andy Adams	80% (8/10)	1/1	1/2	1/1	1/1	0/1	1/1	1/1
Butcher Baker	90% (9/10)	1/1	2/2	1/1	1/1	1/1	1/1	0/1



# enVision™ A|G|A

Algebra 1   Geometry   Algebra 2



Try it today!  
**www.Savvas**  
**Realize.com**

Username: **MSReviewer@enVisionAGA**  
Password: **Reviewer1**

For more information, please contact your  
Savvas **MISSISSIPPI** Account General Manager:

**JACK JENNINGS**  
*Account General Manager*  
601-842-3749  
jack.s.jennings@savvas.com

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**SavvasSchool.com/MS**

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Facebook.com/enVisionAGA

**Get Fresh Ideas for Teaching:**  
**Blog.SavvasSchool.com**