Quick Start Guide

Implementation at a Glance

SAVVAS
LEARNING COMPANY

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“ If we teach **today** as we taught **yesterday**, we rob our children of **tomorrow**. ”
–John Dewey

Introduction

Welcome to ***digits***, Pearson's easy-to-use middle school grades program. Created with you (the teacher) in mind, ***digits*** aims to simplify time-consuming tasks in order to enable you to focus on what's important: teaching and interacting with students.

Inspired by Understanding by Design principles, ***digits***' goal is to engage students with mathematics in an exciting and meaningful way. Each ***digits*** lesson, comprised of **Launch**, **Examples** and **Close and Check** features, focuses on helping students achieve success with on-level content the first time they see it. Instead of providing remediation after students fail, intervention in ***digits*** provides support for prerequisites beforehand. By tackling weakness up front, students are better prepared to succeed with on-level work.

The part about ***digits*** that we are most excited to share—it was created to be flexible. You are encouraged to incorporate your own teaching style and to utilize the resources at your disposal. ***digits*** helps you leverage the classroom technology that you have and supports you with print materials whenever possible.

A Day in the Life

Now that you're a member of the ***digits*** family, you are probably wondering "where do I get started?" What better way to understand the program, than by getting a quick peek at a day in the life of a teacher and students who use ***digits***. At a glance, you will learn about the different components that make up the ***digits*** program and how they can be incorporated into teaching and learning.

This overview of a ***digits*** user's life will help you jump into an **On-Level Lesson** and will quickly introduce you to other features with ***digits***. We hope this will also get you excited for different elements that make up ***digits***. ***digits*** was designed to be interactive, fun and flexible in its implementation.

BEFORE CLASS

Teacher Prep

Teacher reviews the Lesson Overview, Teacher Notes and Lesson pages in **Realize**. He can also view his Teacher Guide eText to prepare for the topic or lessons coming up.

Log into ***digits*** via

MathDashboard.com/digits

All online teacher materials are now accessible on tablet or computer.

On Realize, teacher can:

- Create assignments
- Review lesson planning materials
- Access homework and assessments
- View Teacher Guide resources per unit, topic, or lesson

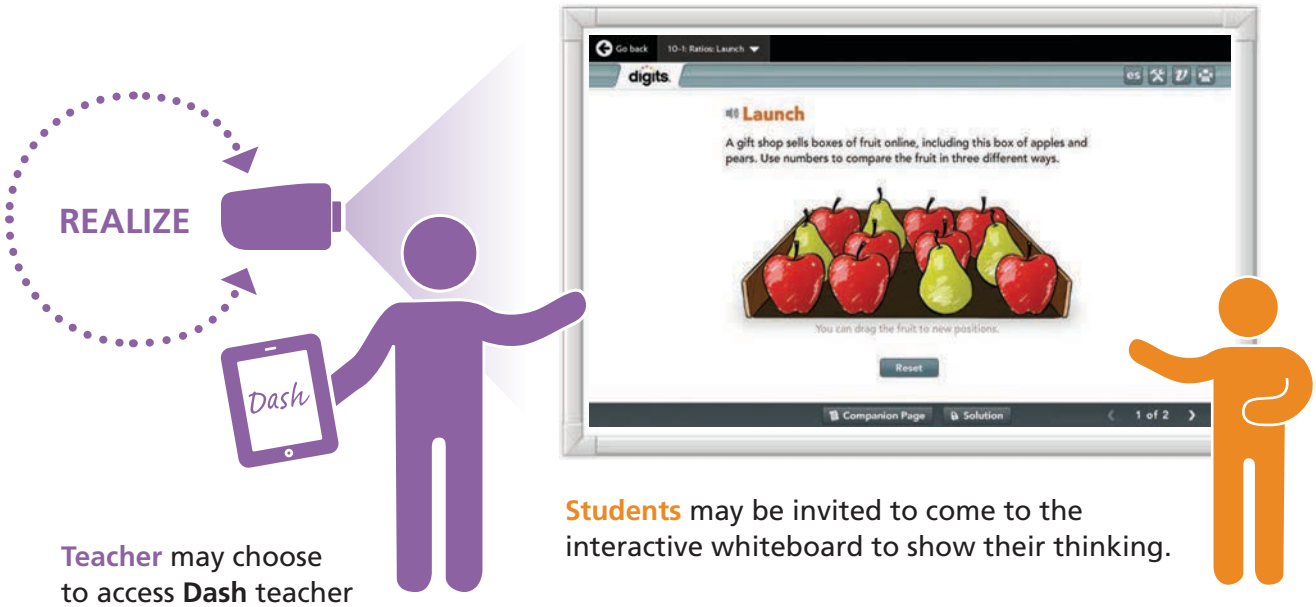
On Dash, teacher can:

Review Teacher Guide materials in e-text

DURING CLASS

Launch

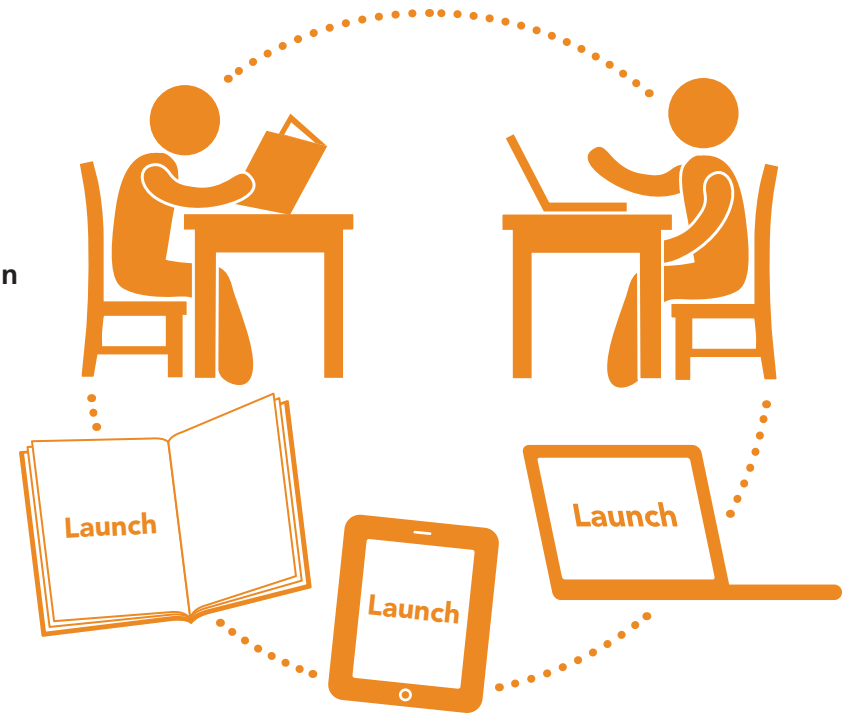
Teacher projects and leads discussion of the **Launch** for the whole class, and poses the **Focus Question** to introduce today's lesson concepts.



Teacher may choose to access **Dash** teacher materials during class or use In-Class Teacher Notes for quick reference.

Students may be invited to come to the interactive whiteboard to show their thinking.

Students work on the Launch Problem in pairs or individually in their print **Student Companion** or in their online ACTIVe-book.



DURING CLASS

Examples and Key Concepts

Teacher walks through an increasingly difficult series of **Examples** and the lesson **Key Concept** with the class. **Got It?** activites are used to check student understanding.

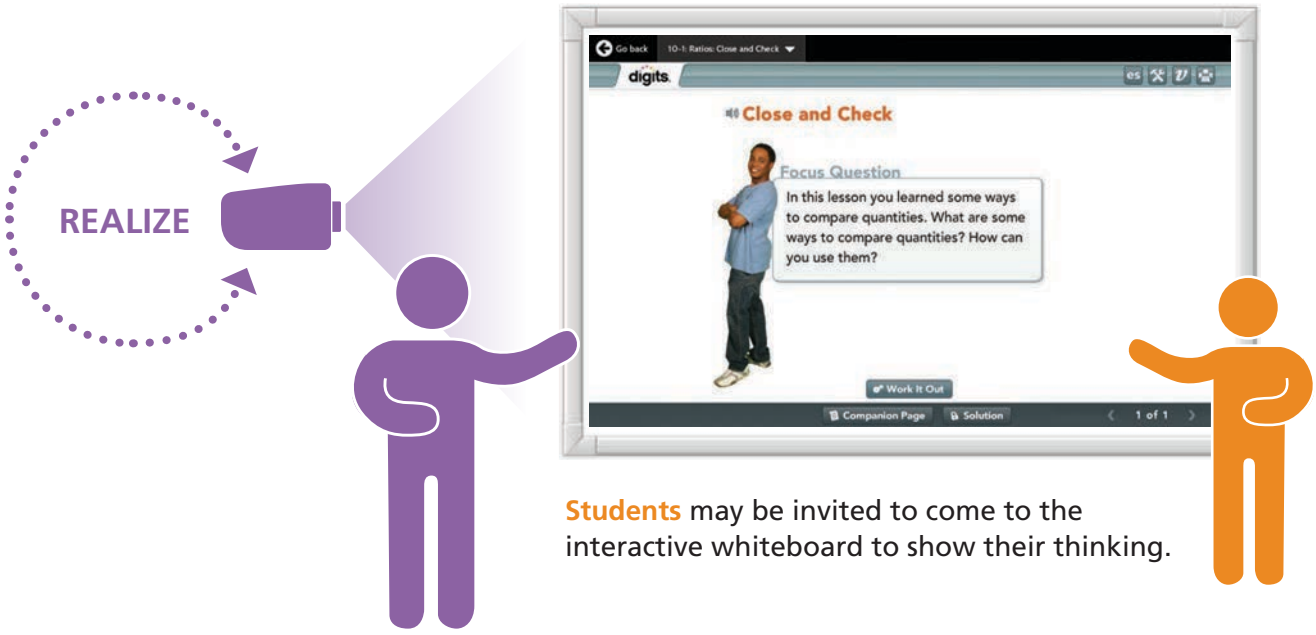
Students may be invited to come to the interactive whiteboard to show their thinking.

Students may work to understand examples and key concepts together or independently in their print **Student Companion** or their online ACTIVe-books.

DURING CLASS

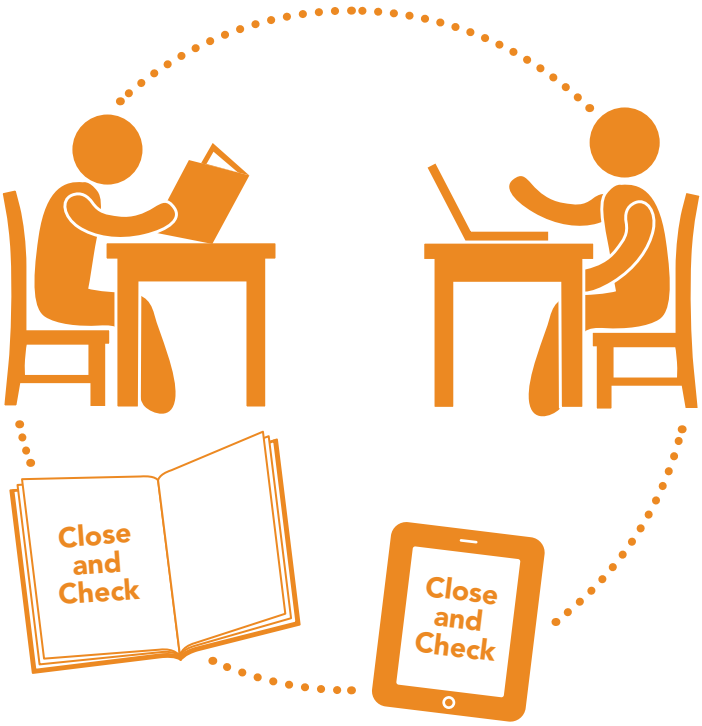
Close and Check

Teacher reintroduces the **Focus Question** and leads a discussion on ways to apply today's lesson concepts.



Students may be invited to come to the interactive whiteboard to show their thinking.

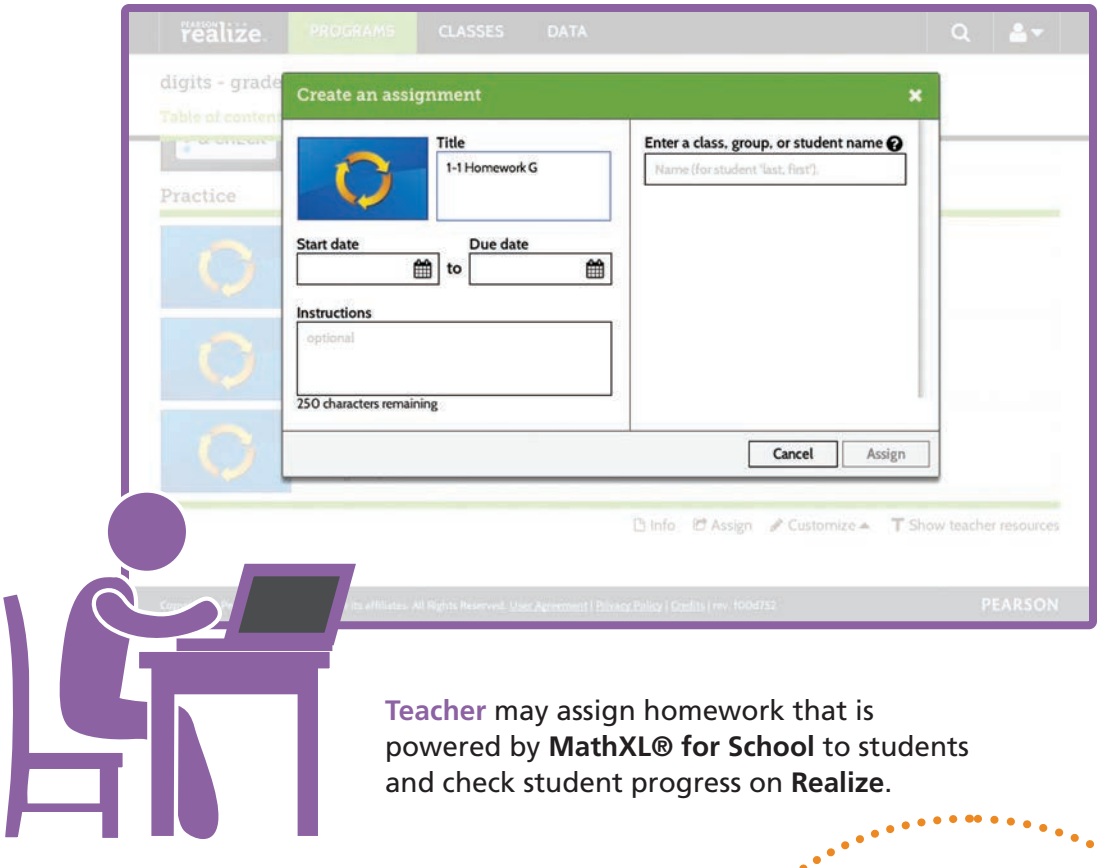
Students work on the Focus Question, complete practice problems, and answer higher-order thinking questions, in pairs or individually, in their print **Student Companion** or online in their ACTIVe-book.



AFTER CLASS

Homework and Assessments

Teacher assigns homework and assessments, checks student progress. Students can review the day's lesson, get assignments, and complete homework and assessments.



Teacher may assign homework that is powered by **MathXL® for School** to students and check student progress on **Realize**.

Students may check assignments and complete **MathXL® for School** powered homework on **Realize**. If a student does not have access to a computer and **Realize** at home, they can also complete their homework using their print Homework Helper.

Observing a digits™ Classroom

The ***digits*** team understands firsthand that showing and being monitored for progress is a difficult part of being a teacher. You may be faced with the following questions: How do I know if the ***digits*** program is working in my class? What would an observer be looking for if they stopped by to check out my ***digits*** classroom? What should my students be processing at certain parts of the lesson? When do I want to encourage student-oriented math investigation?

We understand a lot will happen in your classroom throughout the year. We hope this quick visualization will help shed some light on what you and an observer could look out for.

Go to the Appendix for the version that your school team can photocopy and use to observe your class.

LAUNCH

Lesson Parts

- Introduce lesson concepts.
- Build on prior knowledge.
- Provide motivation for learning math concepts in today's lesson.
- Enable student-oriented mathematical exploration and discourse for deeper conceptual understanding.

Teacher

- ✓ Displays **Launch** for class.
- ✓ Fosters a student-driven environment where students can work alone or together.
- ✓ Invites students to share their solution strategies on an interactive whiteboard, when appropriate.
- ✓ Poses the **Focus Question** for students to introduce the concepts of today's lesson.

Student

- ✓ Views the **Launch** problem projected in class or in **Student Companion** and participates in class discussion.
- ✓ Make sense of, break down, and solve **Launch** problem in **Student Companion** (print or ACTIVe-book).
- ✓ Reflects/connects their work in the **Launch** problem to larger mathematics concepts and the real world.
- ✓ Focuses and records thinking on the **Focus Question.**

EXAMPLES and KEY CONCEPTS

Lesson Parts

- Multiple Examples plus a **Key Concept**.
- Instruction of lesson concepts.
- Each includes a **Got It?**

Teacher

- ✓ Displays and walks through **Examples** with students.
- ✓ Encourages students to share solution strategies at the interactive whiteboard.
- ✓ Presents the **Got It?** to check students' understanding of each **Example**, and modifies teaching accordingly.
- ✓ Displays and reviews **Key Concepts** with class.

Student

- ✓ Works collaboratively or independently on solutions in print **Student Companion** or ACTIVe-book.
- ✓ Demonstrates understanding of lesson concepts by completing **Examples** and **Got Its** of increasing difficulty.
- ✓ Uses interactive **Math Tools**, when appropriate.

CLOSE AND CHECK

Lesson Parts

- Review **Focus Question**.
- **Do You Know HOW?**
- **Do You UNDERSTAND?**

Teacher

- ✓ Reintroduces **Focus Question** and asks students to think about ways to apply the concepts of the lesson.
- ✓ Encourages student-led discourse on key concepts of today's lesson.
- ✓ As class works through **Close and Check** exercises in their **Student Companions**, works with individual students, as necessary.

Student

- ✓ Works with a partner or independently on **Close and Check** questions in print **Student Companion** or ACTIVe-book.
- ✓ Demonstrates mastery of lesson concepts in response to **Do You Know HOW?** questions.
- ✓ Successfully demonstrate in-depth comprehension of lesson concepts and higher-order thinking by working through **Do You UNDERSTAND?** questions.

Navigating Digits

Flexible Design

Lessons in ***digits*** are meant to be flexible. Teachers like you are encouraged to incorporate your own personal style and best practices. You control what information is displayed to the class as well as when to show it. Simple navigation allows you to sequence the lesson presentation as is most helpful to students. On-demand tools also enable you to explore concepts more deeply and in immediate response to student questions.

Getting Started

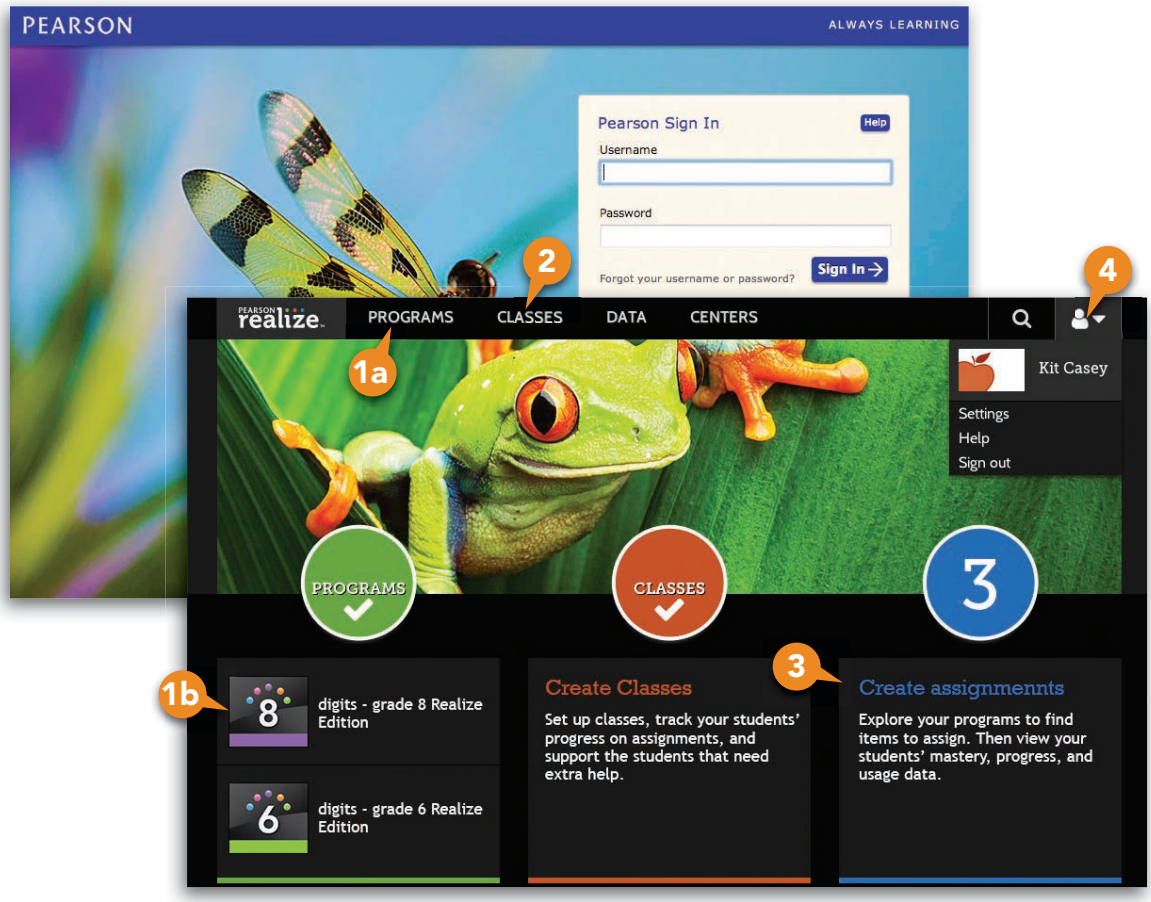
digits Dashboard

Your ***digits*** dashboard is your command central—where you can log into your ***digits*** accounts, connect with members of the ***digits*** community, get help and support, and view training videos on **MyPearsonTraining**. Be sure to bookmark your ***digits*** dashboard url: **MathDashboard.com/digits** and don't forget to check back often for updates and to view new helpful messages.

1. Log in to ***digits*** on Realize using your assigned username and password, or register as a new user.
2. **Questions?** - Find tech support and a knowledge database.
3. ***digits*** **Overview Videos** - Explore everything that ***digits*** has to offer.
4. **MyPearson Training** - Check out these teacher training videos and downloadable quick reference sheets.
5. **Teacher Community** - Ask questions, share ideas and connect with ***digits*** teachers.

digits on Realize

After you log in through your ***digits*** dashboard, you will have access to the ***digits*** program, powered by **Realize**. The ***digits*** on **Realize** homepage is where you will find all the programs you are signed up for, and where you can manage classes and assignments in just a couple of clicks!



1a Get started by clicking on **Programs** in the top bar. You will be prompted to select the program you are signed up for. Once complete, it will be visible in you programs list (1b) on this page.

1b Click on your ***digits*** program to access your program's table of contents.

2 **Create Classes** - Click on **Classes** in the top bar to create classes and add students.

3 **Create Assignments** - Once you are on your way, one of the best features of ***digits*** is that you can create unique assignments for each of your classes.

4 **Settings** - Modify your settings, access help and sign out.

Table of Contents

All ***digits*** programs have a table of contents where you can easily access the entire curriculum. You can browse the table of contents in List view or Thumbnail view and even make it your own by rearranging the order in which the units appear on your screen.

At the top level of ***digits***, you will see your unit materials which contain the unit breakdown, **Program Overview Guide** (under **Teacher Resources**), and progress monitoring assessments. Once you are in the unit level, you will find **Readiness Assessments**, Topic-level information, and **Unit Tests**.

1 **Units** - Click on a unit to begin exploring into your topic and lesson materials.

2 **Customize** - ***digits*** on **Realize** is all about you! You can customize the main level of the table of contents by rearranging the unit order. Look out for the 

button along the program. This will help make the material your own.

3 **Search** - Can't find the material you are looking for? Just click on the search  button and get there faster by typing in the unit, topic, or lesson name.

4 **Create Content** - Did you find a video online that could really help your students understand a unit? Did you create an activity that you want to share with your class? Click on 

to upload files and add links to the resources that will help support student engagement.

5 **My Content** - After you add content, it can easily be connected to unit-, topic-, or lesson-level materials. Now when you open a unit, topic, or lesson to begin work with your class, your materials will be in one place.

6a **Teacher Guide** - Need an answer key? Need a printable test? Just click on 

to access the Teacher Resources dropdown menu. This digital Teacher Guide will provide information on the following:

- **Lesson Objectives**
- **Focus Question**
- **Math Background**
- **Launch** (with Author Intent, Questions for Understanding, and Solution Notes)
- **Key Concept** (with Questions for Understanding)
- **Examples** (with Author Intent, Questions for Understanding, Solutions Notes, and Got It Notes)
- **Close and Check** (with Focus Question Notes and Essential Question Connection)
- Various suggestions for Differentiated Instruction, ELL Support, Error Prevention, and comments on effective instruction through Interactivity

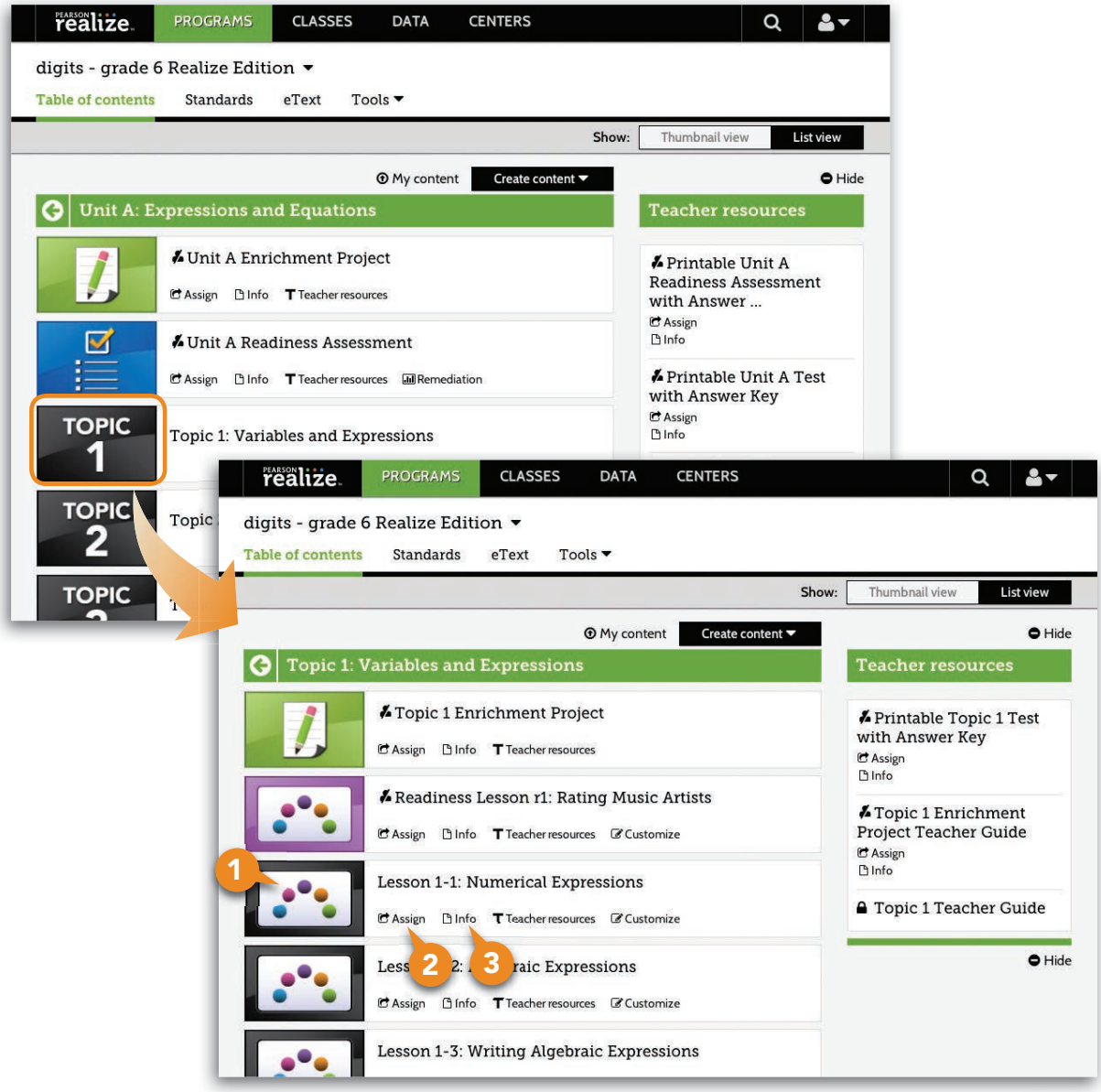
6b **Teacher Resources** - For Teacher Resources that are specific to a lesson, topic, or test, here's a shortcut. Click on 

within a component.

7 **Topic Contents** - Don't stop here! Keep going to the topic level to uncover more of what ***digits*** has to offer.

Topic Level Contents

At the topic level you will find your **On-Level Lessons**, **Readiness Lessons**, **Enrichment Projects**, **Topic Review** and **Topic Tests**. You can create content and explore resources as you dig deeper into the material.



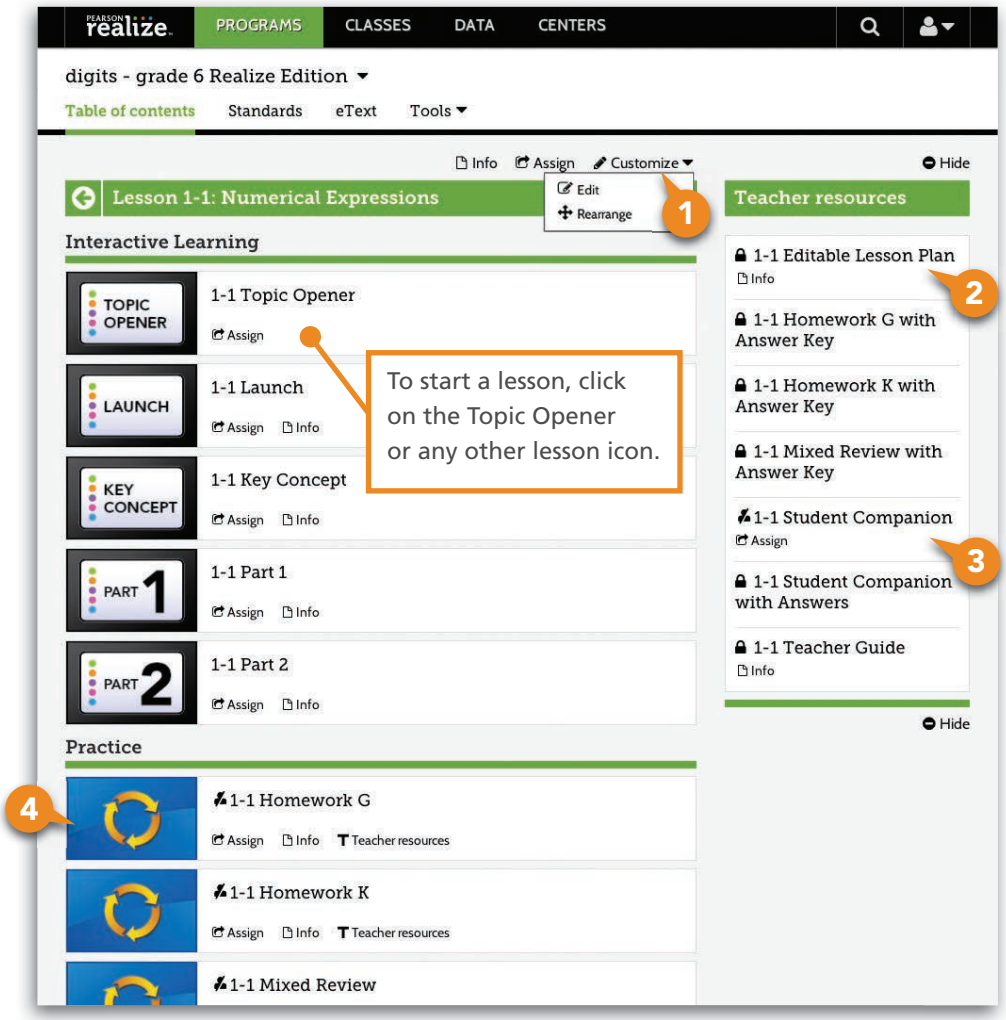
1. **Lesson** - Keep going! You are just a click away from viewing a lesson in action.

2. **Assign** - Once you have taken the time to create a class, you can assign a lesson, a homework or a test to students. Wherever you see an Assign button, you can assign just that element so that they can get going on their own.

3. **Info** - By clicking on Info, you will get a quick description of the component. At the lesson level it will show you what standards are covered.

Lesson Level Contents

Most days in class will be spent teaching and learning on the lesson level. Here you will find all lesson components, editable lesson plans, **Student Companion** pages, and more.



1. **Customize** - Don't want to start with the topic opener? Want to start with an example first? Reorder the lesson components as you see fit and get started. All lesson contents are accessible from this list or you can launch a lesson by clicking on any part of it.

2. **Editable Lesson Plan** - Download and edit a lesson plan for every lesson.

3. **Student Companion** - You also have easy access to the print materials that the students have at their disposal.

4. **Assign Homework** - When you are ready to assign homework, you will notice it has two parts: Lesson Practice and Mixed Review. Lesson Practice includes problems that support the instruction of the corresponding lesson. Mixed Review contains exercises that address previously taught content. Both can be assigned to a student or class. For more info on **Homework G** or **K** please refer to page 26 or check out the **Program Overview Guide**.

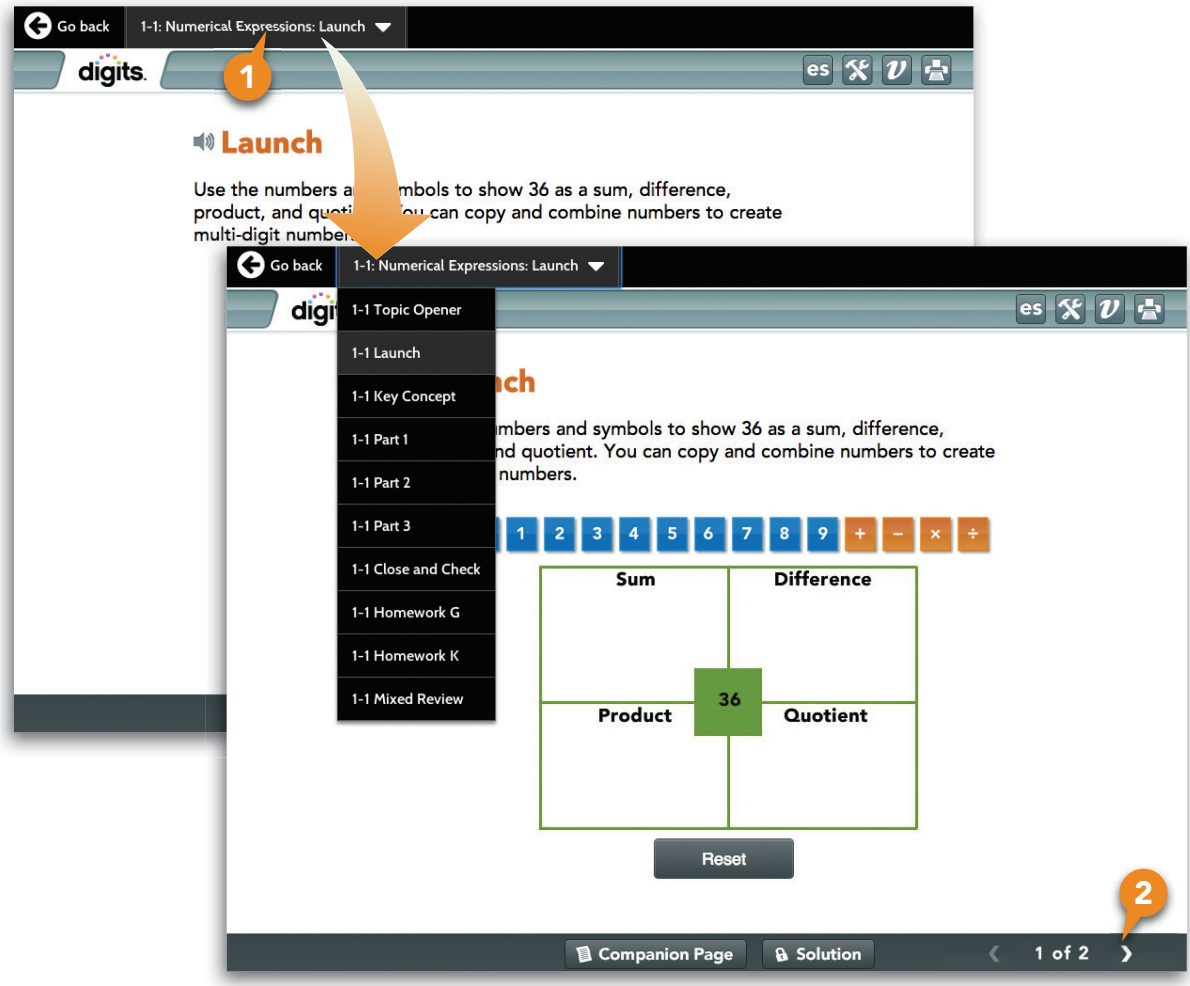
Navigating a Lesson

digits on **Realize** was designed to empower you to make adjustments that will best serve your students. Lessons in ***digits*** are designed to promote interactivity with various features.

The **On-Level Lesson** has three major parts: **Launch**, **Examples**, and **Close and Check**. Simple navigation allows you to easily move between these three parts, find a specific example, or a specific screen.

1. **Lesson Navigation** enables you to quickly jump from different parts of the lesson. Remember, you can also jump to any part of the lesson from the previous lesson contents page.

2. Screen controls allow you to advance to the following screen of the lesson part you are viewing.



Universal Features

Every page has a set of universal features for access at any time. Universal features include audio support, **Math Tools**, printing, Spanish translation, and **Vocabulary and Key Concepts**.

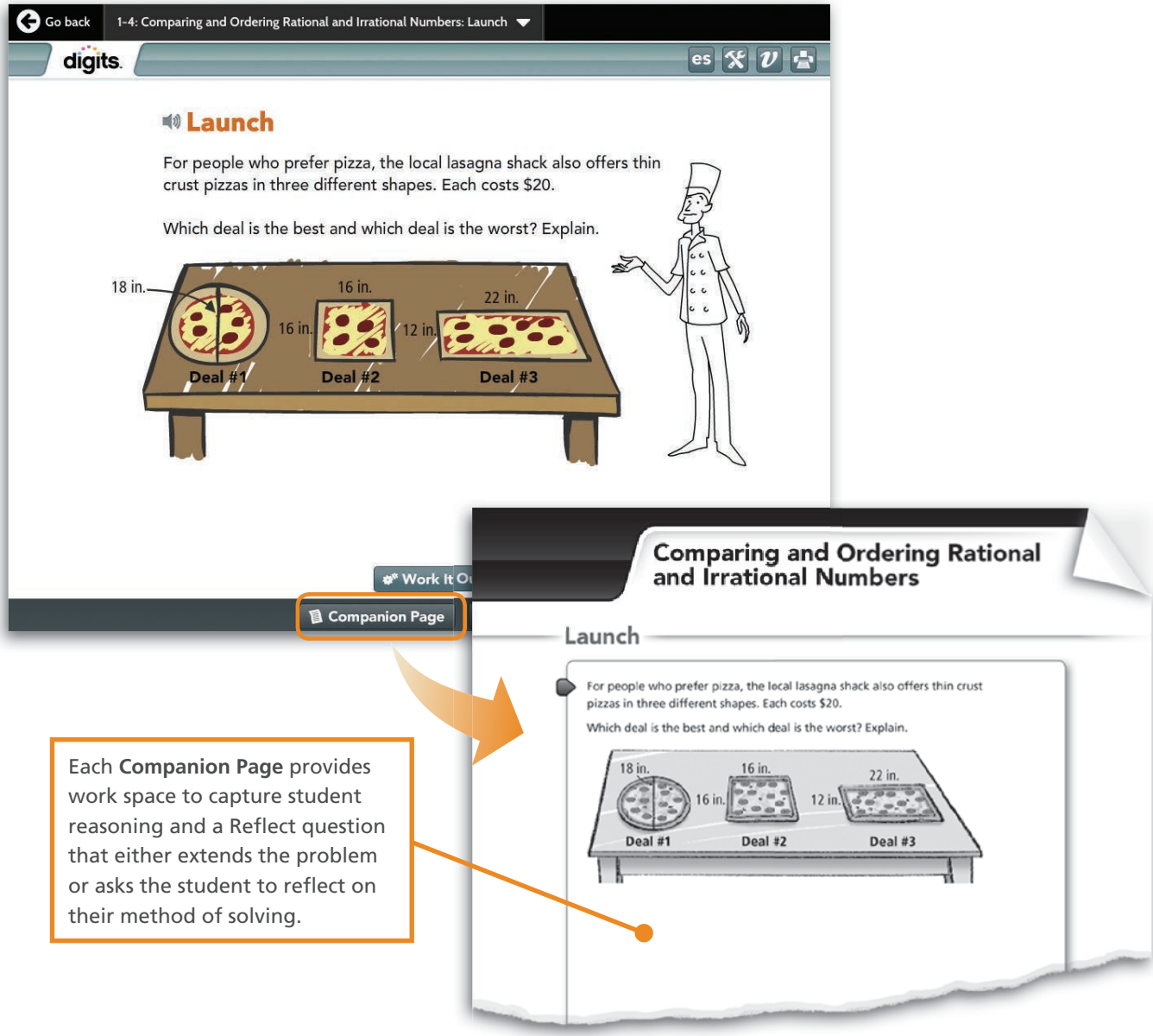
1. **Audio Support** - reads on-screen text out loud to students.
2. **Spanish translation** - of the on-screen text.
3. **Math Tools** - enables students to work out problems with digital support.
4. **Vocabulary and Key Concepts** - provides clarification for terms or concepts that are unclear.
5. **Print** - allows you and your class to print parts of the lesson seen on-screen.

Launch Features

The **Launch** problem is meant to:

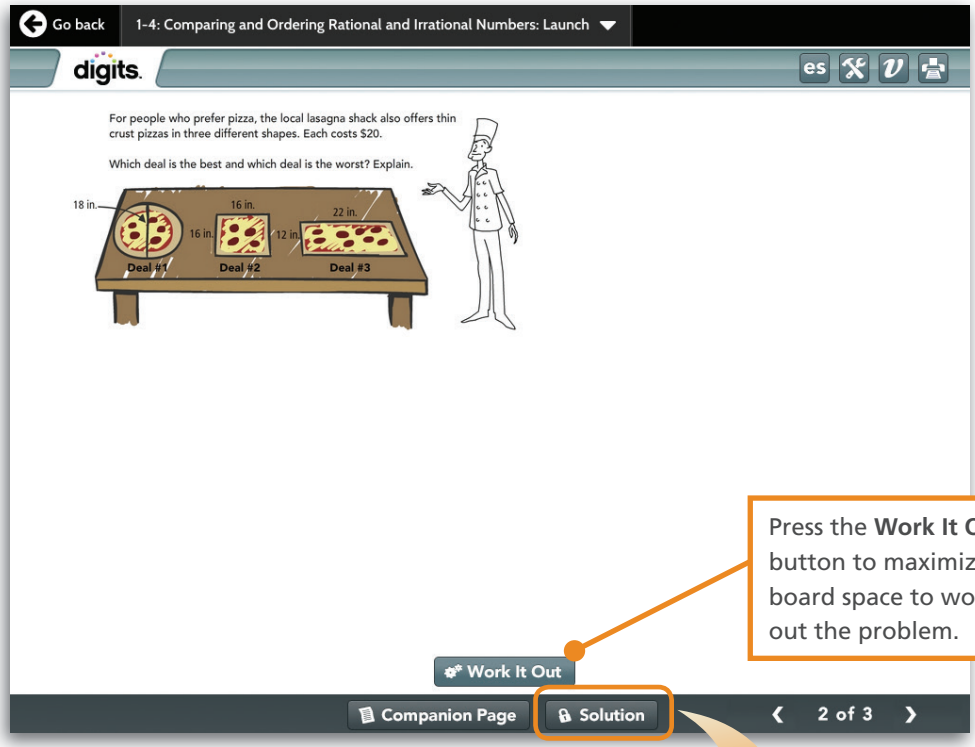
- engage your students immediately in math
- draw out prior knowledge
- introduce the lesson concept

You can use the **Launch** as a "warm-up" that students complete independently or that they can work through together. **Launch** problems are designed to enable student-oriented mathematical exploration and discourse for deeper conceptual understanding. In most lessons you will find the following special features on the **Launch** screen: **Work It Out, Companion Page**, and **Solution** buttons.

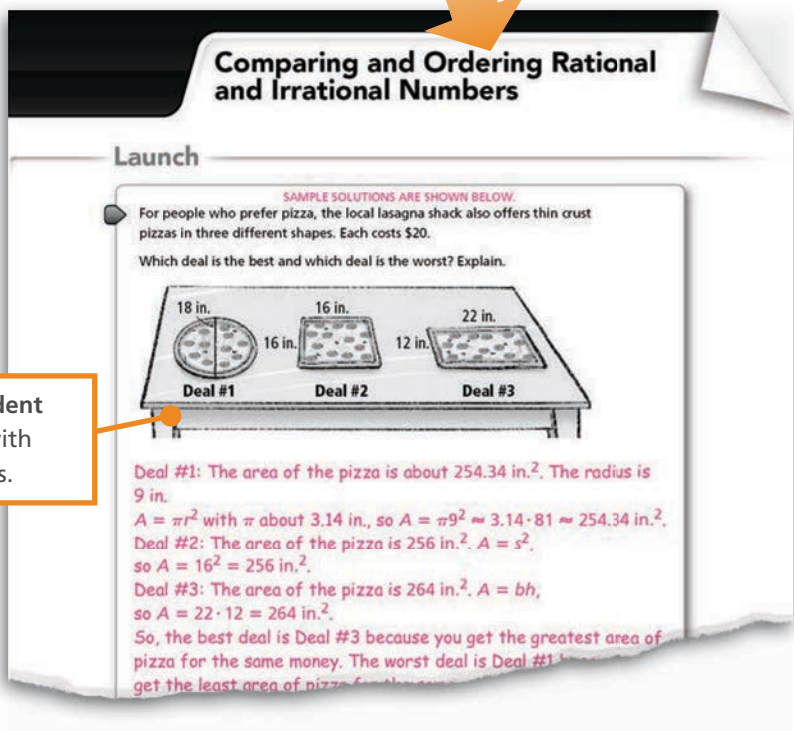


Each **Companion Page** provides work space to capture student reasoning and a Reflect question that either extends the problem or asks the student to reflect on their method of solving.

The Work It Out **button** shrinks the text and images to maximize your board space for modeling a solution free hand or with **Math Tools**, or for inviting students to the board to share solutions. Press the **Work It Out** button again to return the problem statement and images to the original dimensions.



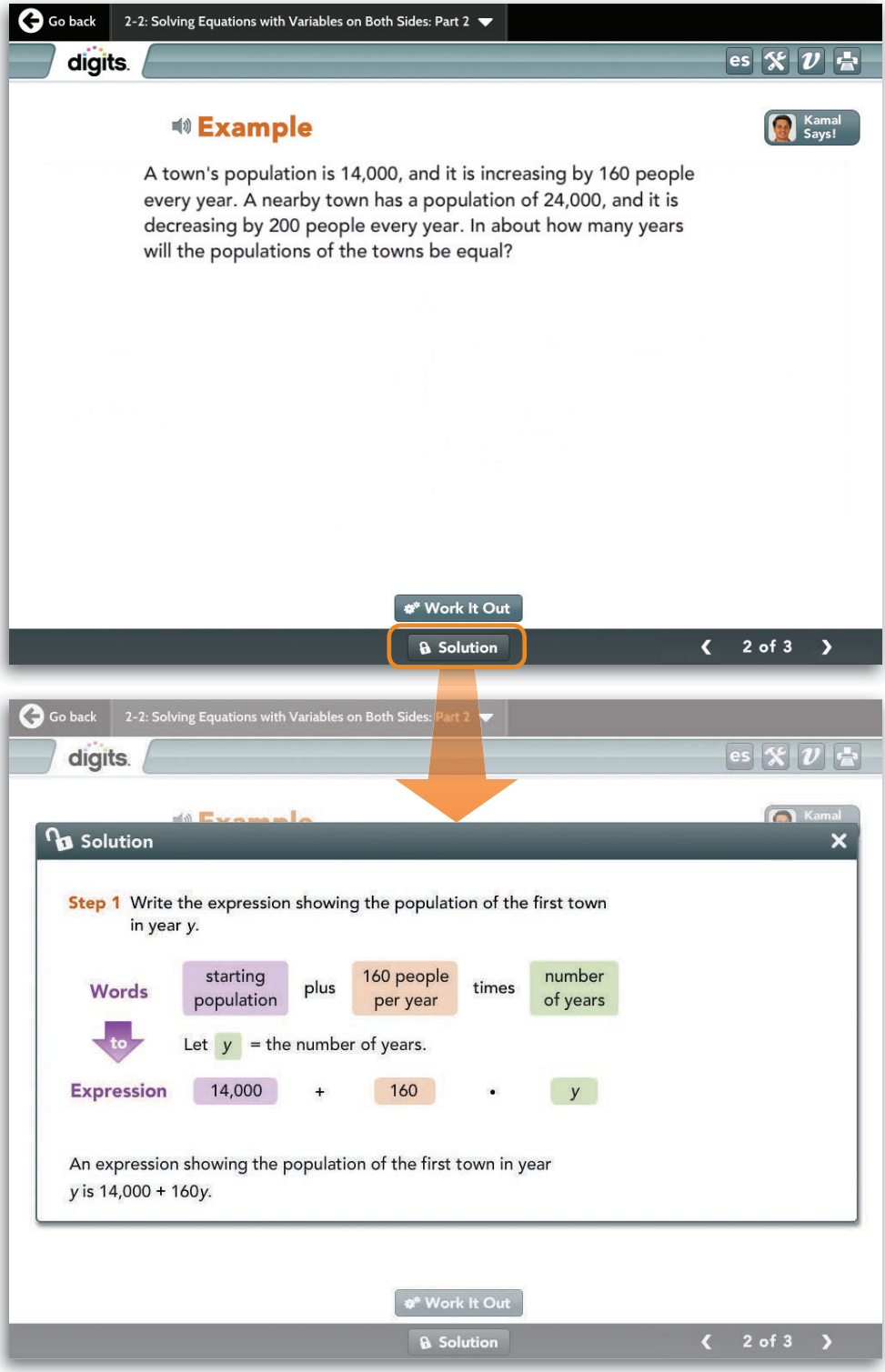
Press the **Work It Out** button to maximize board space to work out the problem.



Downloadable **Student Companion** page with annotated solutions.

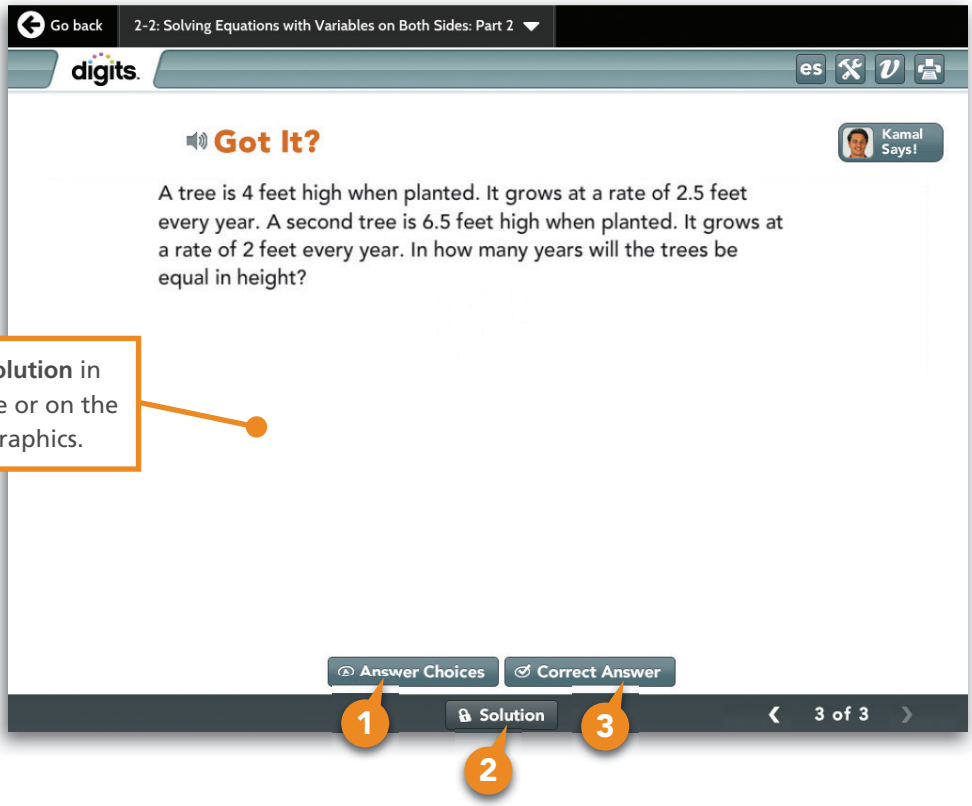
Examples Features

Examples provide your class with explicit instruction of the lesson's concept and build upon one another in difficulty and conceptual development. Similar to **Launch**, **Examples** also include a Work It Out button as well as a complete Solution to enable students to self check their work. As before you can have students complete the **Examples** collaboratively or independently.



Each **Example** concludes with a **Got It?** The **Got It?** feature is instructional assessment that you can use to determine whether or not the class understood the **Example**. If your students are successful with the **Got It?**, you can move on with confidence. If the class is not successful with the **Got It?**, you can re-teach the **Example** immediately or make adjustments to the next example.

As a teacher, you can administer the **Got It?** in a variety of ways. The screen is designed with whitespace so that you can model a solution or invite students to the board. If the class has student response devices (clickers), you can display multiple choice options. The **Student Companion** includes the **Got It?** and provides the student space to work out the answer.



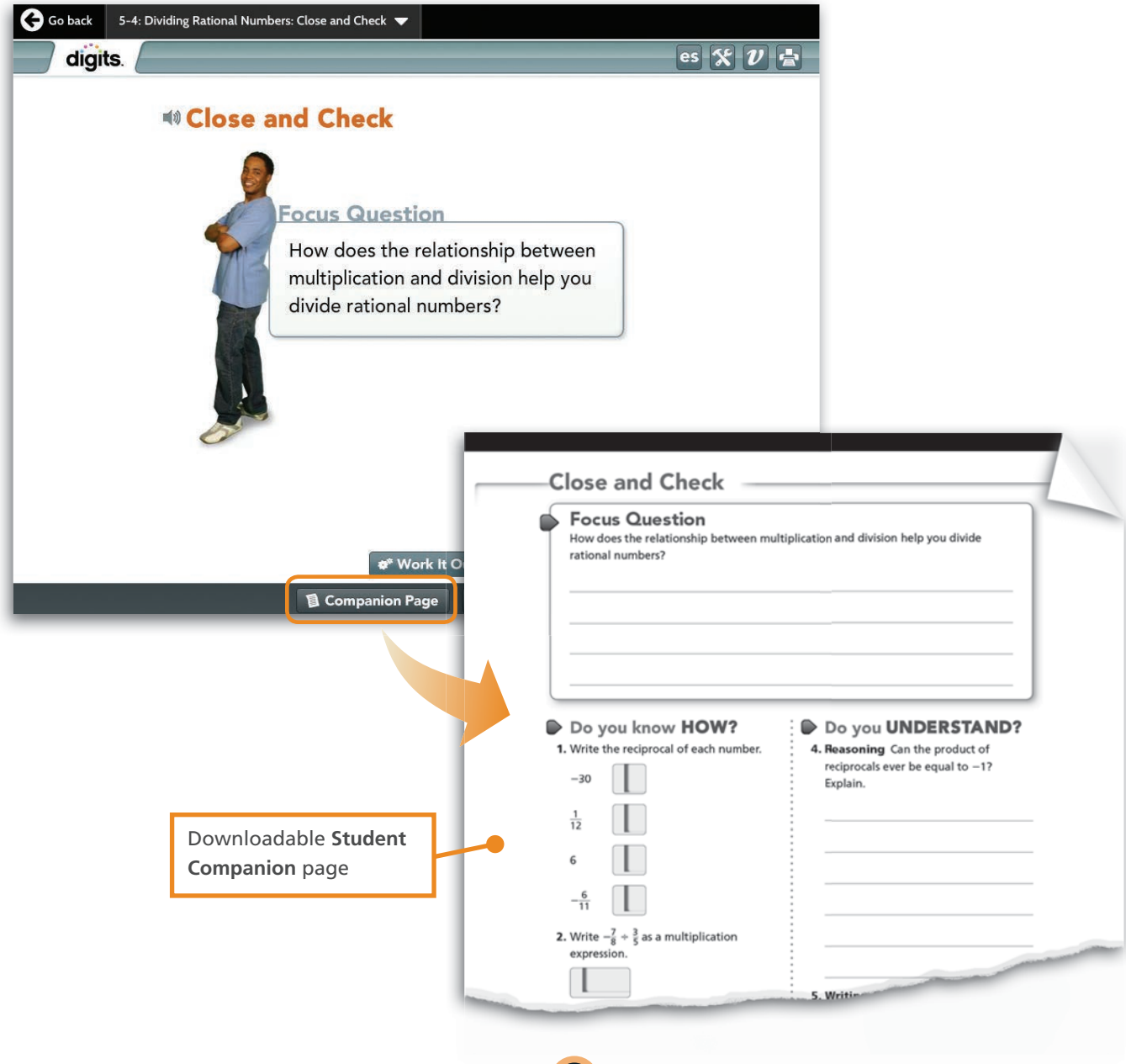
1. Press the button to display multiple choice options.
2. Students can complete the **Got It?** independently on their **Companion page** and open the solution on their screen in order to self check their work.
3. Press the button to provide the student with the correct answer.

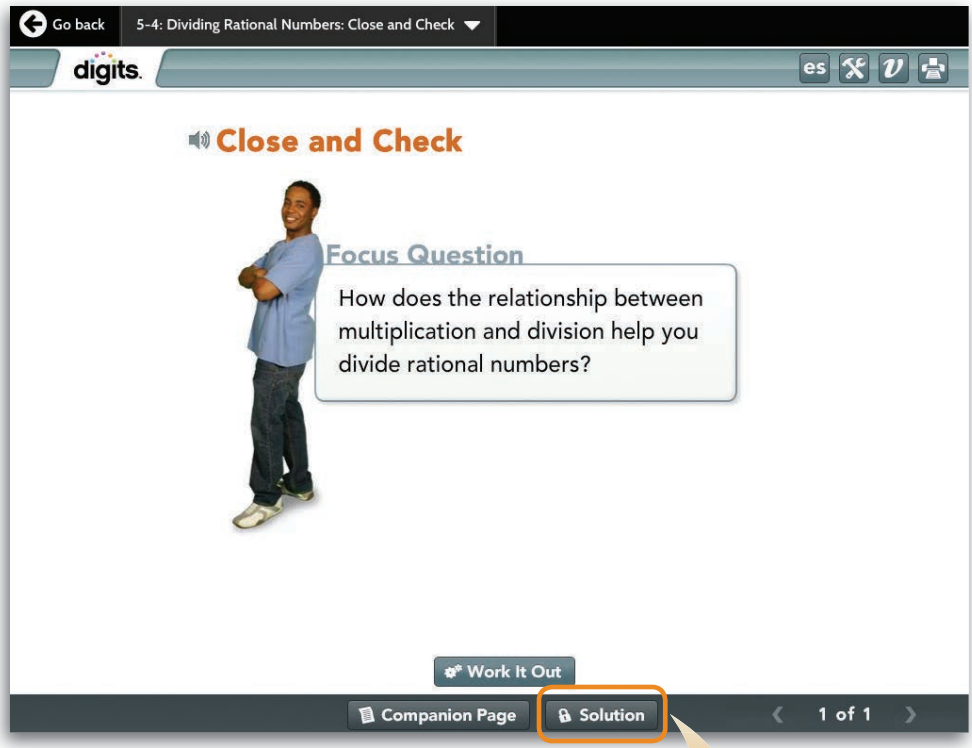
Close and Check Features

The **Close and Check** is designed to bring students back to the **Focus Question**. Teachers can click on **Work It Out** to maximize board space for writing down class discourse or a summary of the lesson, open the **Student Companion** page on screen to have students share solutions, or open an **annotated solution page** for students to self check their work.

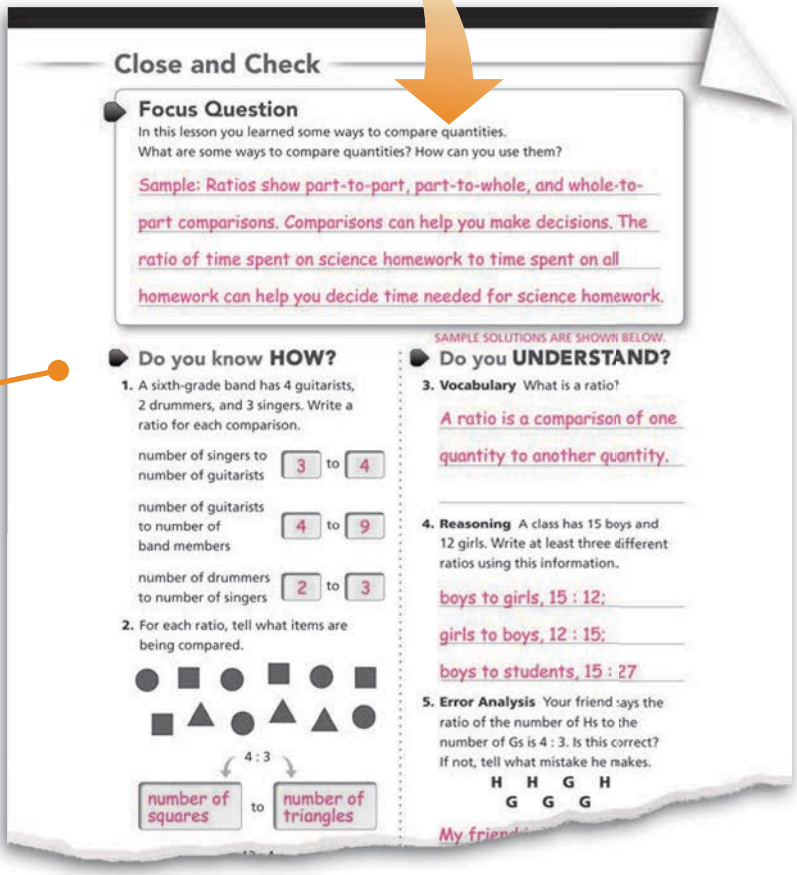
The accompanying **Companion Page** includes **Do You Know HOW?**, which are additional problems similar to the Examples and **Do You UNDERSTAND?** for higher order thinking.

Thus, the **Student Companion** becomes a student-created reference resource for when students are completing problems outside of class.





Downloadable **Student Companion** page with annotated solutions.



Math Tools

Now that you understand the basics of getting around ***digits***, here's a couple of ***digits*** tools worth noting.

Manipulatives are built into the ***digits*** program. Digital versions of Place-Value Blocks, Area Models, Integer Chips, Algebra Tiles, and Pan Balances are available in ***digits***. These manipulatives are contained within the **Math Tools** menu. Access the **Math Tools** under the Tools menu, or from the Tools icon on each Lesson screen. Clicking on the **Math Tools icon** opens a new window with a list of the math tools.

These manipulatives and tools enable students to interact with, develop, and model math concepts in real time. As a teacher you can use these tools at any point during class. The tools support you in constructing and teaching math concepts visually. The tools also support students in exploring variations of a given math concept and deepening their understanding of the concept. Students can also access the tools from home to aid them with their homework. You can open multiple copies of the same tool or a variety of tools at the same time to compare different strategies among students.

A brief description of all of the tools appears on the next page.

Number Line

- Graph integers, decimals, fractions, mixed numbers, and display their opposites and absolute values on a number line.
- Graph single and compound inequalities.
- Model addition and subtraction of fractions, mixed numbers, integers, and decimals.

Place-Value Blocks

- Model and solve base-10, whole-number, and decimal place-value expressions using place-value blocks.

Area Models

- Explore the multiplication of fractions and mixed numbers, the relationship between squares and square roots, and the relationship between cubes and cube roots using a grid array.

Fractions and Percents

- Model fractions and mixed numbers using strip and pie models.
- Model addition and subtraction of fractions.
- Find a part, whole, or percent in a proportion.

Integer Chips

- Model and solve expressions using integer chips.

Algebra Tiles

- Model and manipulate one-variable algebraic expressions and equations using algebra tiles.

Pan Balance

- Model, compare, and manipulate expressions, equations, and inequalities using natural number values on a pan balance.

Coordinate Grapher

- Construct lines, inequalities, or a system of lines or inequalities.
- Plot and move data points.
- Show trace, line of best fit, and solutions graphically.

2-D Geometry

- Construct and manipulate 2-D geometric figures and shapes to discover their properties and help prove theorems and postulates.
- Measure angles, lengths, and area.
- Explore triangles given specific conditions to determine if they are unique.

3-D Geometry

- Graph 3-D figures such as prisms, pyramids, spheres, cylinders, and cones, and then explore their properties.
- Explore, measure, and compare nets, volumes, and surface areas of 3-D figures.

Data & Graphs

- Add or import data sets into a table, and then select a graph type to display and manipulate the data sets.

Probability

- Perform simulations using real-world objects.
- Compare experimental probability to theoretical probability.

Grids & Organizers

- Select a visual construct to capture students' thoughts and reasoning.
- Apply and support the Standards for Mathematical Practice of the Common Core State Standards.

Calculator

- Displays stacked fractions, percents, squares and square roots, cubes and cube roots, exponents with any base, and expressions within parentheses.
- Generate and display a ten-digit random decimal between 0 and 1, using a dedicated random number key.

Homework and Assessments

Homework can be administered in three forms:

☑ Online

Homework online includes learning aids and auto-reporting. When students log in through My Math Universe, they will automatically see the appropriate assignments in their To Do list. The learning aids have been shown to have significant impact on student performance.

Homework has two parts: **Lesson Practice** and **Mixed Review**. Lesson Practice includes problems that support the instruction of the corresponding lesson. Mixed Review contains exercises that address previously taught content. Students assigned **Homework G** receive homework that includes exercises with increased challenge. Students assigned **Homework K** receive homework that includes exercises that help them develop mathematical thinking.

☑ Traditional paper-based

Printable homework PDFs can be found in the **Teacher Resources** dropdowns online or on the teacher resource DVD. All PDFs are labeled with the lesson number and title for easy identification. After printing or duplication, students complete the assignment on paper and turn it in to the teacher for grading and recording into the gradebook.

☑ From the print **Homework Helper**

The **Homework Helper** contains a homework assignment for each lesson. Students can complete the assignment on paper and turn it in to the teacher for grading. The **Homework Helper** book also contains the **Key Concepts** and **Examples** from each lesson to help students who cannot access My Math Universe.

Assessments can be administered in two forms:

☑ Online

For online delivery, after logging in, students immediately access the assessment from their To Do list when the teacher makes it available.

☑ Traditional paper-based

Similar to paper-based homework, printable assessment PDFs are provided on the teacher resource DVD.

Savvas strongly recommends that students complete homework and assessments online whenever possible. It allows students to maximize the power of digits and gives them a personalized learning experience due to the immediate feedback provided by the online technology.

Online Homework and Assessments in ***digits*** are powered by **MathXL® for School.** Students tackle **MathXL® for School** assignments, homework and practice with point-of-use learning tools—and as a teacher, you save hours on administrative tasks while benefiting from in-depth achievement data.

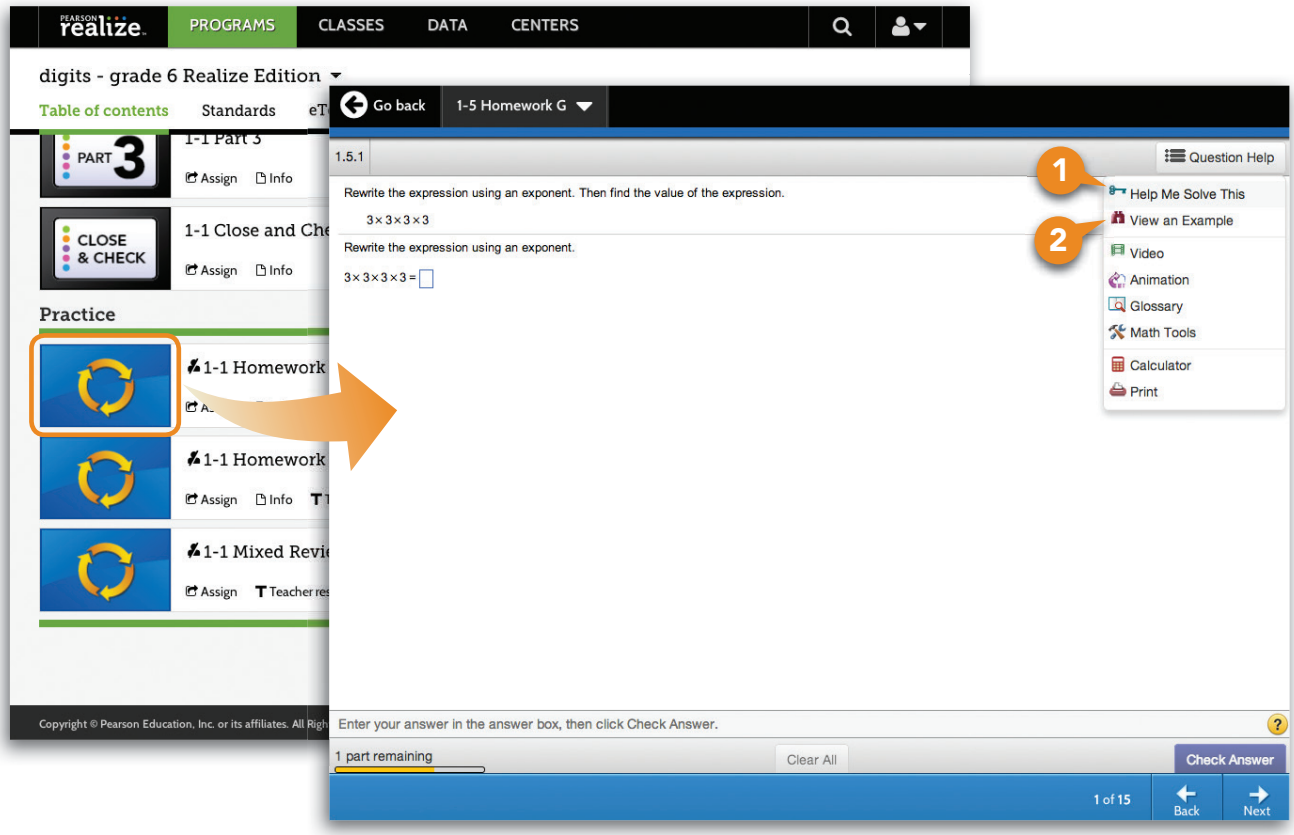
Students can:

- Get help from Interactive Study Aids, Stepped-Out Examples, and Animations
- Receive immediate feedback and opportunities to try again
- Work online or use printed worksheets as needed

Teachers can:

- Assess individual and group performance using data-driven reports
- Deliver quality, effective instruction regardless of experience level

Here is a preview of a homework assignment.

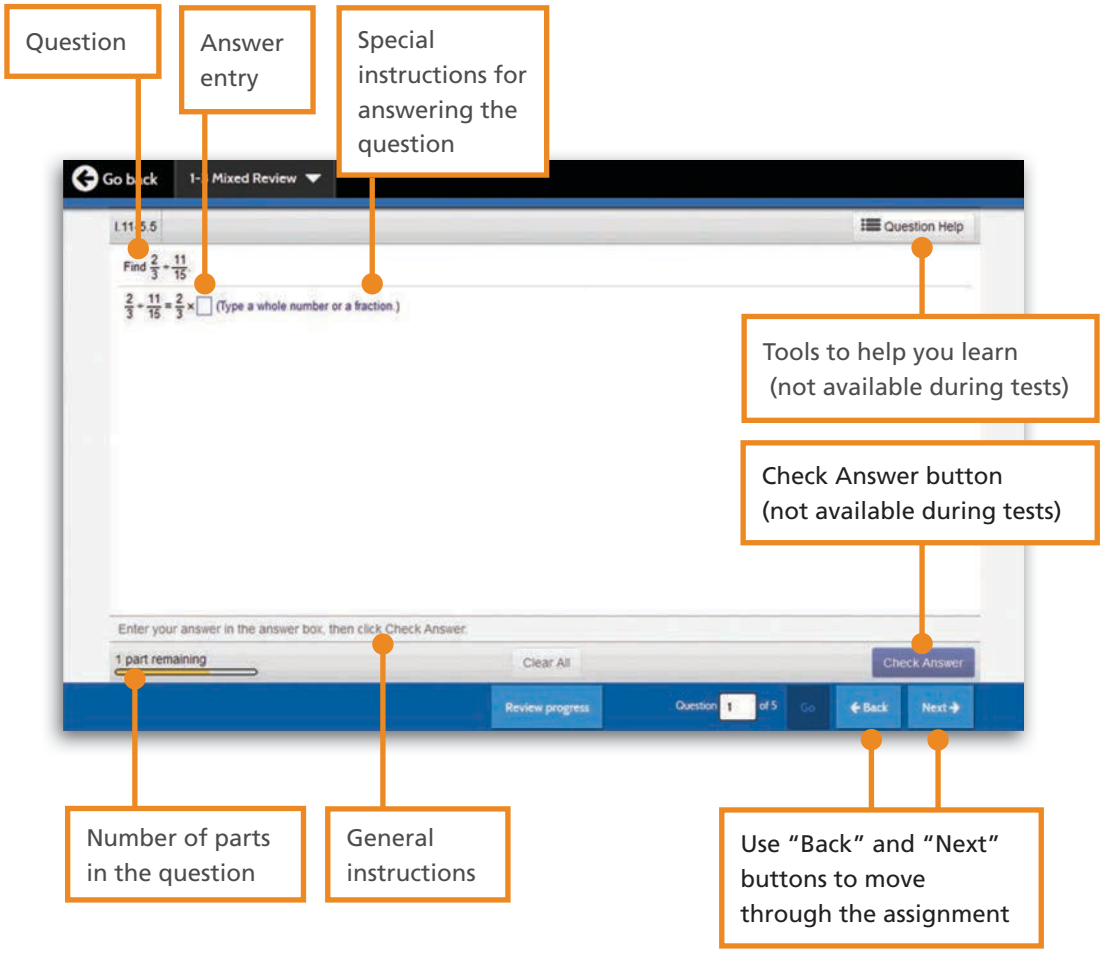


1 **Help Me Solve This** scaffolds the problem by asking a prompting question at each individual step. Students are provided with instant feedback for each step in order to address any misconceptions at the source. When the Help item is closed, the item will regenerate with new values for a fresh attempt.

2 **View an Example** provides a fully worked out step-by-step solution of a similar problem.

Answering MathXL® Questions

Some of your ***digits*** assignments use the MathXL question player, shown below. On the pages that follow, you will come to understand best practices for entering answers into MathXL-powered homework and assessment questions. In order to ensure students get proper credit for their answers, you can distribute these pages or review the information together.



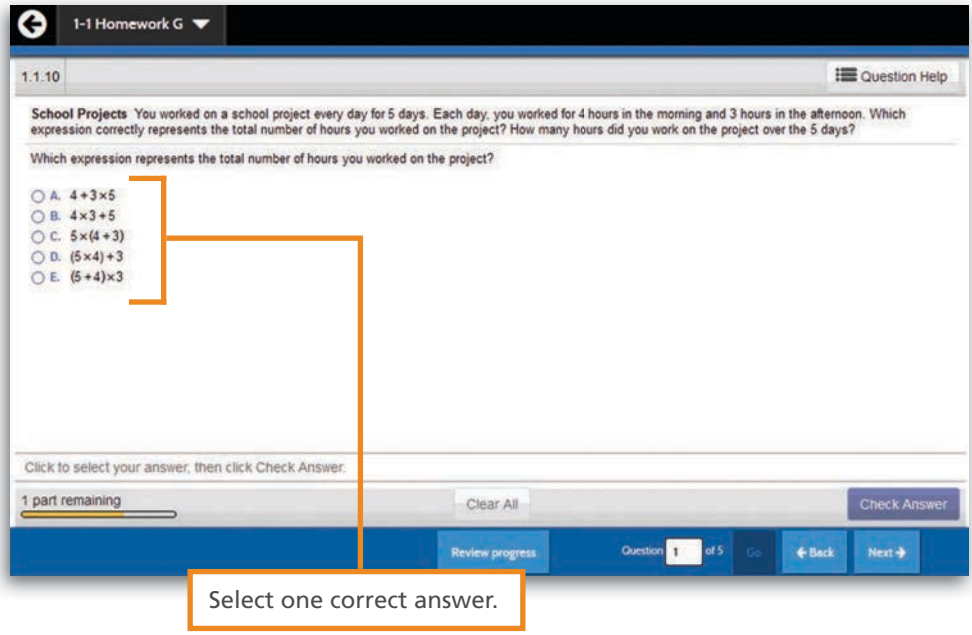
When viewing questions in the MathXL question player, you will use different areas of the screen for viewing the question, entering your answer, checking your answer, and accessing tools to help you learn.

Question Types

There are a variety of question types used in the program. The most common question types are:

- **Multiple choice** Select one answer among several options provided.
- **Fill-in-the-blank** Select one answer from a drop down menu.
- **Free response** Enter your own answer using the symbol palette and the keyboard.

Answering Multiple Choice Questions



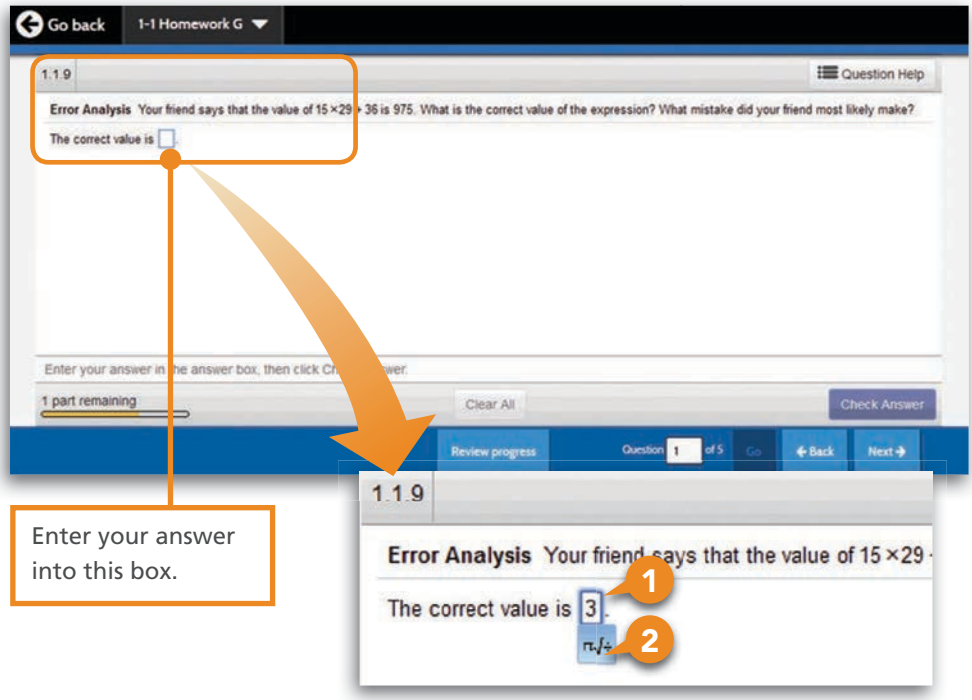
For multiple choice questions, select your answer from the options provided.

Answering Fill-in-the-Blank Questions

Fill-in-the-blank questions have an answer box with an arrow pointing down.

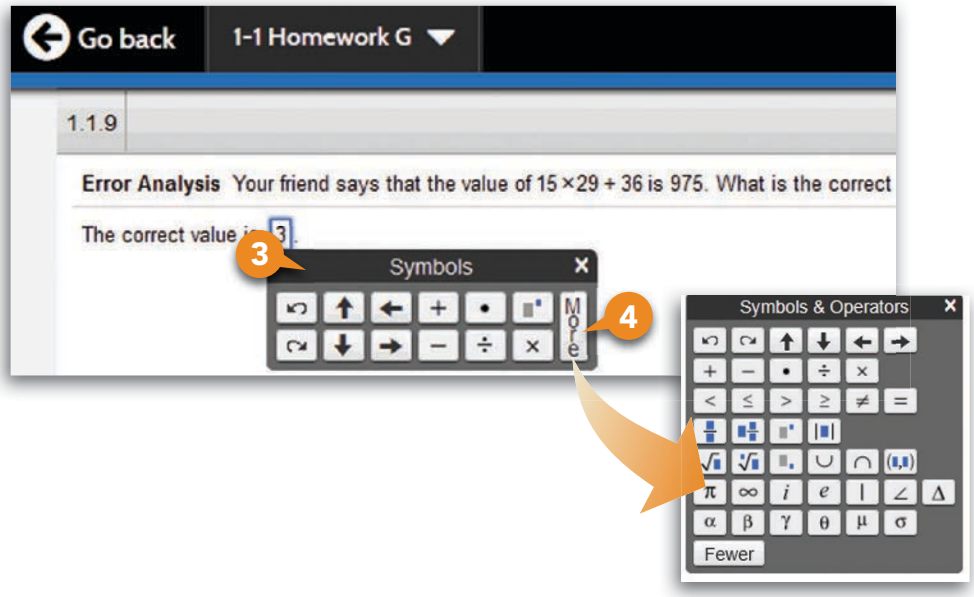
1. Click or tap on the arrow to display the answer choices.
2. Click or tap your answer selection to make it appear in the answer box.

Answering Free-Response Questions

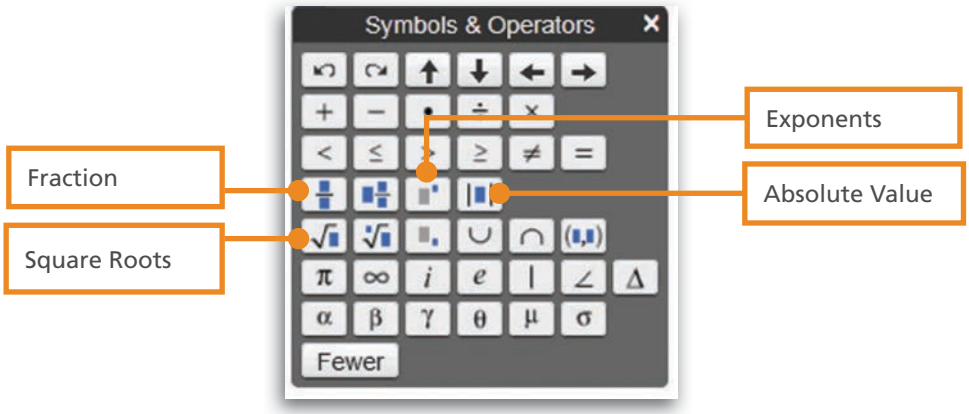


In order to answer a free-response question, follow these steps:

1. Click or tap inside the answer box to reveal the blue button.
2. Start typing the answer using your keyboard to enter numbers and/or variables (*x* or *y*, for example). If you need to enter a math symbol, click or tap on the blue button that appears under the answer box.
3. Once you click or tap on the blue button, the symbol palette will appear.
4. Click or tap "More" to see more symbols and operators.



Using Templates from the Symbol Palette

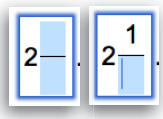


If your answer requires special formats, as shown above, use the symbol palette to help you insert your answer.

1. If you want to enter $2\frac{1}{3}$ as your answer, you would click or tap this template on the symbol palette.

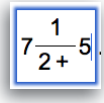
2. Blue boxes are then inserted into the answer box. Click or tap inside the blue boxes. (You can also use the tab or the arrow buttons/keys to move into and out of the blue boxes.)

3. Enter the correct number in each box, using the arrow keys or buttons to move between boxes. Once you have entered a number into a blue box and then moved outside of that box, the blue background disappears in that box.

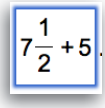


4. In some cases, when you have finished entering numbers in the blue boxes, you will need to use the arrow buttons or keyboard to move outside the template to continue entering your answer.

   For example, if you are entering $7\frac{1}{2} + 5$ make sure you move the cursor to the right of the fraction template before starting to type "+ 5."



INCORRECT



CORRECT

In summary, each template works the same way:

- Click or tap the template on the symbol palette to move it into the answer box.
- Click, tap, or tab into the blue box.
- Enter the correct number(s) into each blue box.
- After entering numbers into the template, use your arrow buttons to enter any information that belongs outside the template.

Entering Math Symbols from the Keyboard

Here are the symbols and shortcuts that will be accepted as correct from your your keyboard.

Common Operation Symbols

To use this symbol....	Enter this shortcut...	To display
+ (plus)	Plus sign on keyboard	$2+3$
− (minus)	Dash on keyboard	$2-3$
= (equal)	Equal sign on keyboard	$2^2=4$
· (multiplication dot)	* (asterisk) *For example*: 2 * 3	$2 \cdot 3$
× (times sign)	\times *For example:* 2 \times 3	2×3
÷ (divided by)	\divide	$2 \div 3$
< (less than)	Left angle sign on keyboard *For example:* 2 < 3	$2<3$
≤ (less than or equal to)	< = (left angle sign and an equal sign) *For example:* 2 < = 3	$2 \leq 3$
> (greater than)	Right angle sign on keyboard *For example:* 3 > 2	$3>2$
≥ (greater than or equal to)	> = (right angle sign and an equal sign) *For example:* 3 > 2	$3 \geq 2$
≠ (not equal)	< > (left and right angle signs) *For example:* 3 < > 2	$3 \neq 2$

Important Tips for Entering Answers

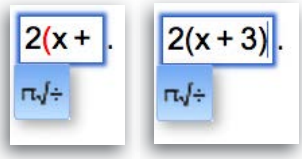
- As shown on page 34, when entering math symbols, it is best to use the symbol palette provided, otherwise your answer may not be marked "correct."

  Multiplication symbol: When you need to enter a multiplication symbol, do not use the letter "x" from the keyboard, a "bullet," or small dot. Even though these entries may look correct, they will not be recognized as correct.

  Use the multiplication symbol on the symbol palette or type an * (asterisk) from your keyboard. (See acceptable keyboard entries on page 35 above.)

  Negative sign: When you need to enter a negative sign, do not use the _ (underscore). You may use the minus sign or hyphen from your keyboard.

  Parentheses: Don't forget to enter parentheses in your answer where needed. The opening parentheses will display in red until you have entered the closing parentheses:

  You can also use this template for entering *x* and *y* coordinates with parentheses:

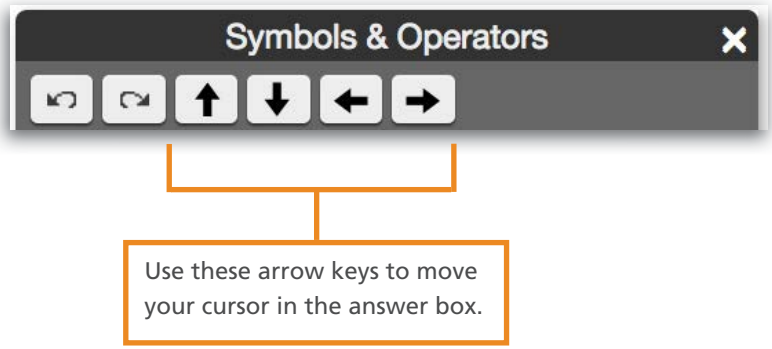
- **Spaces:** When entering numbers, it's important not to enter spaces between the numbers. For example, when entering the number twelve (12), do not enter a space between the one and the two (1 2). The extra space will make your answer incorrect.

  If you enter a space between a number and a symbol, however, the spaces will be ignored by the program:

  2 + 3 (with spaces) will be scored the same as 2+3 (without spaces)

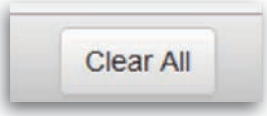
  2 < 3 (with spaces) will be scored the same as 2<3 (without spaces)

- Do not copy and paste answers or symbols from other programs or locations on your computer. Copying and pasting symbols or answers from other programs can sometimes introduce hidden symbols that will cause your answer to be scored as incorrect. The symbol palette and the keyboard provide everything you need.
- Do not use letters (such as a lower case L or an upper case i) for the number one.
- You can use the tab key or the arrow keys on the symbol palette or on the keyboard to move your cursor in the answer box.



- Use the "un-do" and "re-do" arrows to remove your entry and then put it back.

- Use the "Clear All" button at the bottom of the player window to delete everything you have entered in the answer box.



Readiness Assessment and Learner Levels

The Readiness Assessment determines a student's proficiency with pre-requisite content for a unit of instruction. The overall score suggests the student's Learner Level for the unit. By default, the Learner Level threshold is 70%. Students with scores at or above 70% are identified as proficient with the pre-requisite content and can be assigned G for the Learner Level. Students with scores below 70% are identified as weak with the pre-requisite content and can be assigned K for the Learner Level.

The Learner Level is used to determine how to group students for the Readiness Lesson. Teachers, however, have the power to adjust an individual student's Learner Level assignments as they see fit.

The teacher may provide pre-requisite instruction to students assigned the K Learner Level (and may include G Learner Level students as well) and distributes the Readiness Lesson activity sheets according to the Learner Level assignments.

Students assigned the G Learner Level can receive homework that includes exercises with increased challenge. Students assigned the K Learner Level automatically receive homework that includes exercises that help them develop mathematical thinking.

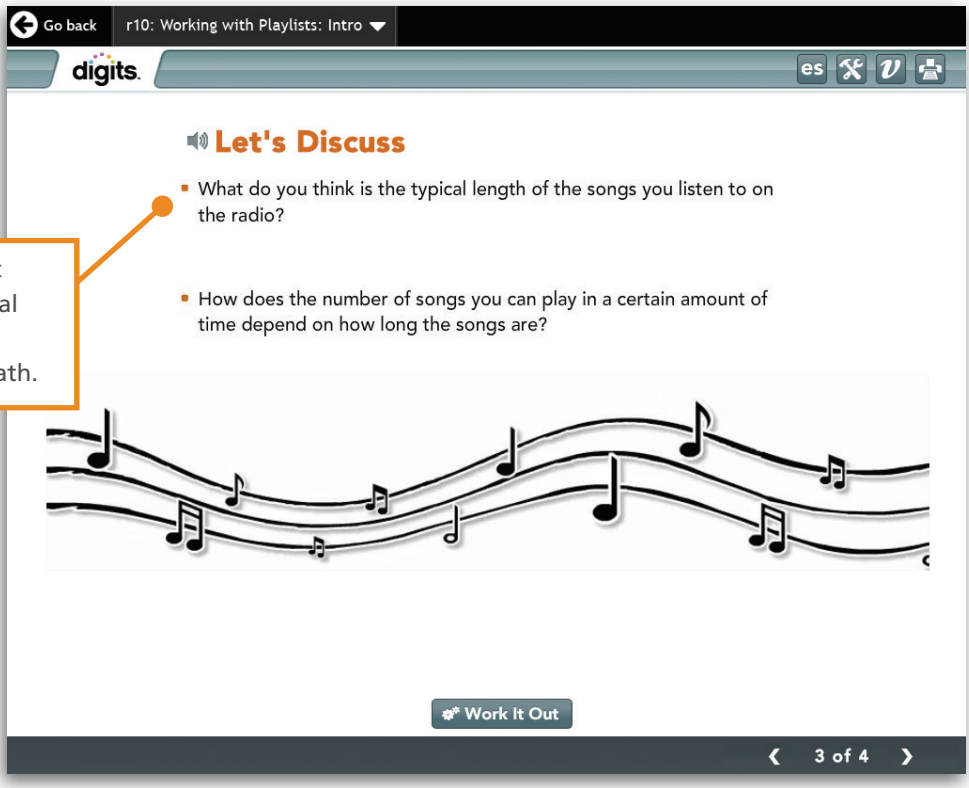
In addition to suggesting the Learner Levels, the Readiness Assessment data is also evaluated to identify specific areas of prerequisite weakness for each student.

Intro Features

Before you get started with Readiness Lesson, you should group students according to their Learner Level, and duplicate the appropriate quantities of G and K Activity Sheets. Students assigned Level K Learner Level would benefit from sitting together. Readiness Lessons can be found on each topic level alongside the **On-Level Lessons**.

The **Readiness Lesson** has three major parts: **Intro**, **Learn Examples**, and **Close**. The **Intro** and **Close** involve the entire class, whereas **Learn Examples** provides additional instruction on the unit's pre-requisites for students assigned Learner Level K. You may use the **Learn Examples** section with the whole class if desired.

During the **Intro**, a math problem with a real-world context is presented and the lesson's activity is introduced. Students have a chance to ask you questions and share personal experiences related to the context. After reviewing the activity, you will distribute the activity sheets according to the Learner Levels. Students assigned the K Learner Level continue on to the **Learn Examples** segment of the lesson with the teacher. Students assigned the G Learner Level may work with the teacher, independently or in pairs.

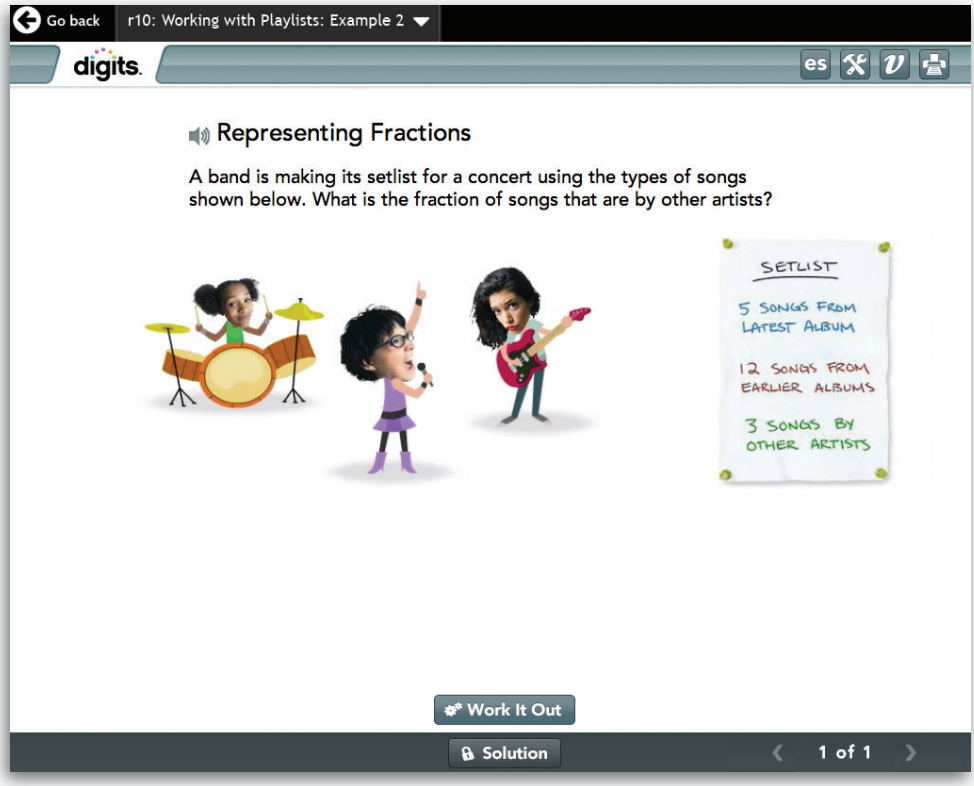


Students reflect on their personal experiences to relate to the math.

Examples Features

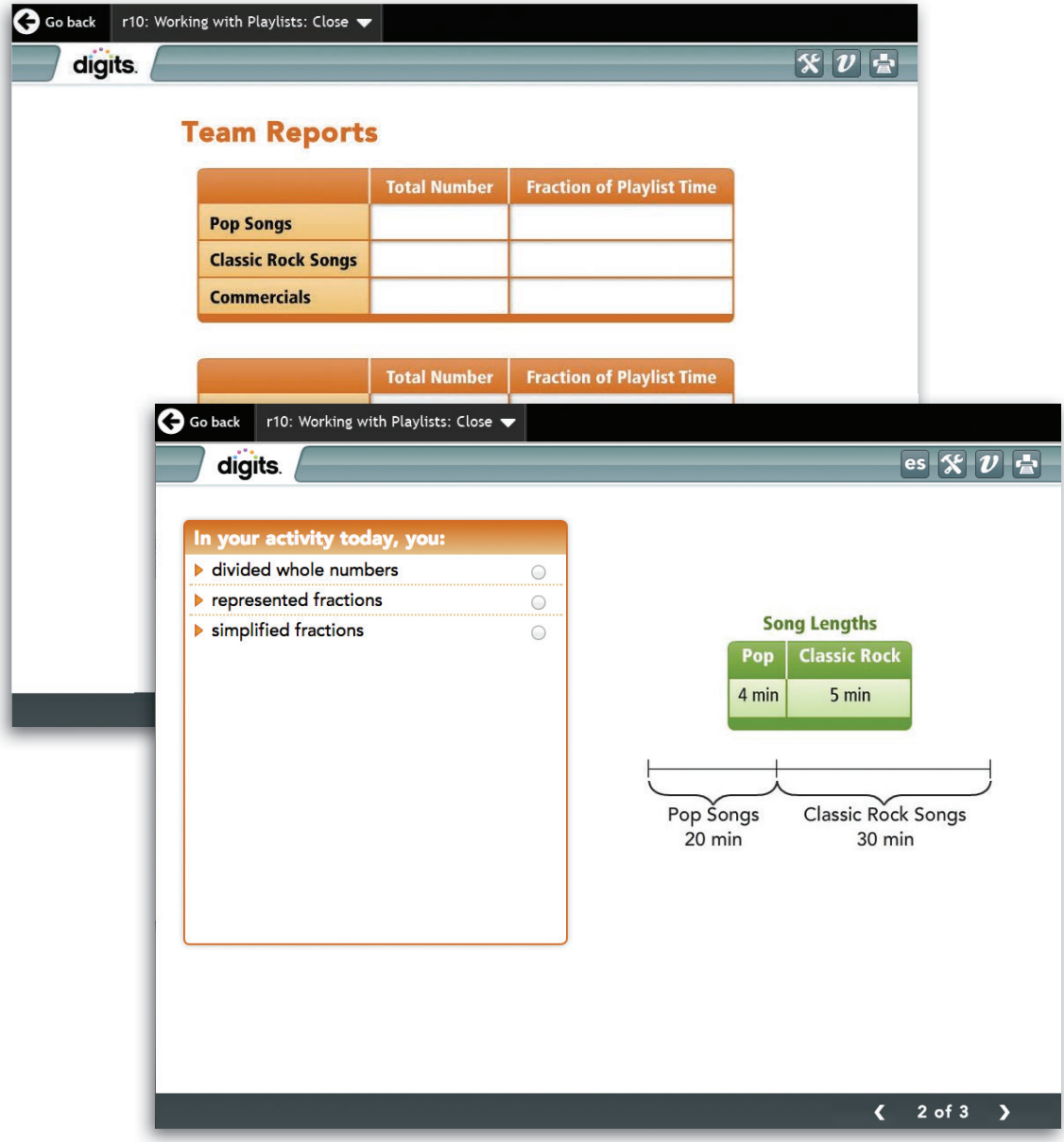
Examples in the **Learn Examples** portion of the lesson provides additional explicit instruction on the pre-requisite content. Examples illustrate the use of various concepts and skills in the context of the lesson. You can model solutions, invite students to the board to solve using various strategies, or display fully worked out solutions.

After working through the examples, students work independently or in pairs within their Learner Level group on their activity sheets. Since students assigned the G Learner Level demonstrated proficiency on the pre-requisite content, the G activity sheet focuses on extending students' understanding with additional challenge. The K activity sheet provides additional scaffolding to support students with weakness in the pre-requisite content.



Close Features

The whole class is brought together for the **Close**. Students share findings or solutions, discuss various strategies, and explain their reasoning. Because the real world context is common, all students should be able to contribute and benefit from the discourse. Students share and compare solutions and strategies and verbalize reasoning.



A summary of the prerequisite content is reviewed, in the second image, to ensure that all students are prepared for the upcoming unit of instruction.

Intervention Lessons

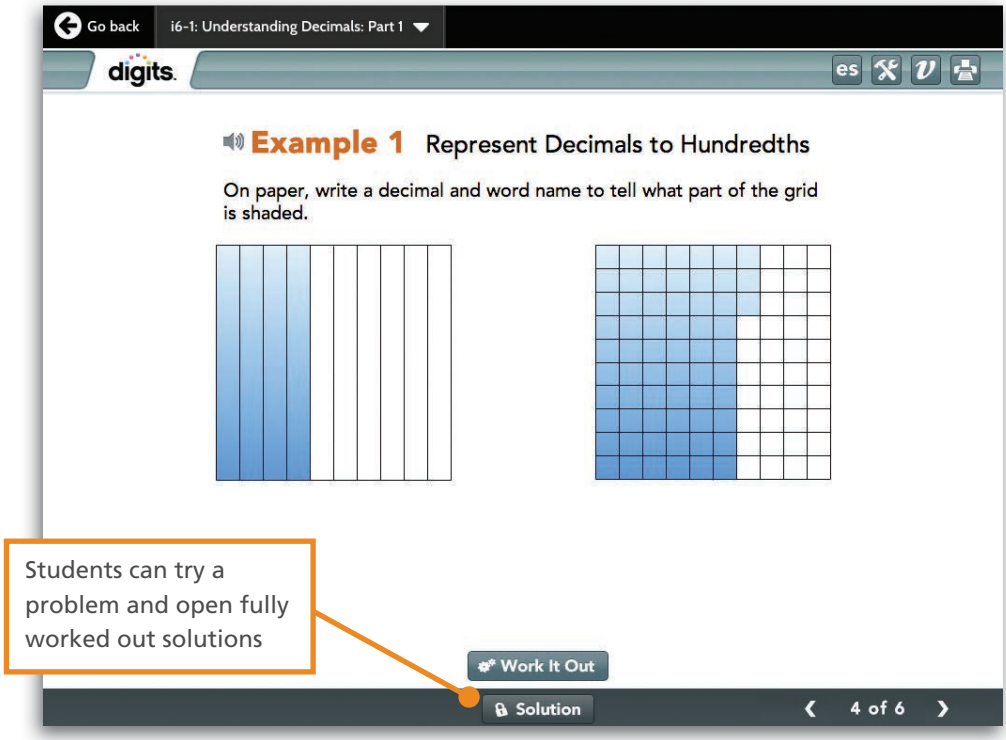
Intervention in ***digits*** is designed to support various implementation models. Intervention lessons can be completed by students independently or can be completed with your guidance. Research has shown us that students who are on grade level with occasional areas of weakness are able to complete intervention independently, whereas students with large gaps in understanding are best served with additional teacher guidance in a small group setting, such as in an **Intervention** pull-out or a Title 1 class.

To access **Intervention lessons**, go to the program level table of contents and the Intervention section is listed with the program units.

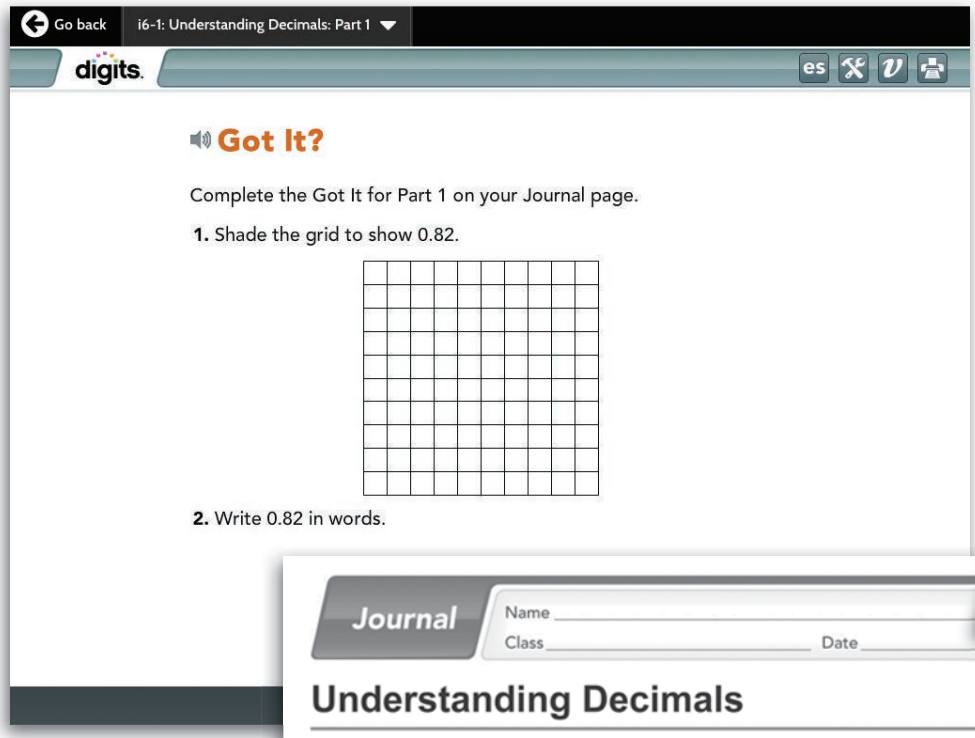
To complete **Intervention Lessons**, students need to be online and have access to a printer. After students log in on **MyMathUniverse.com**, they can access an assigned **Readiness Assessment**. This assessment will generate a **Study Plan** with appropriate **Intervention Lessons**.

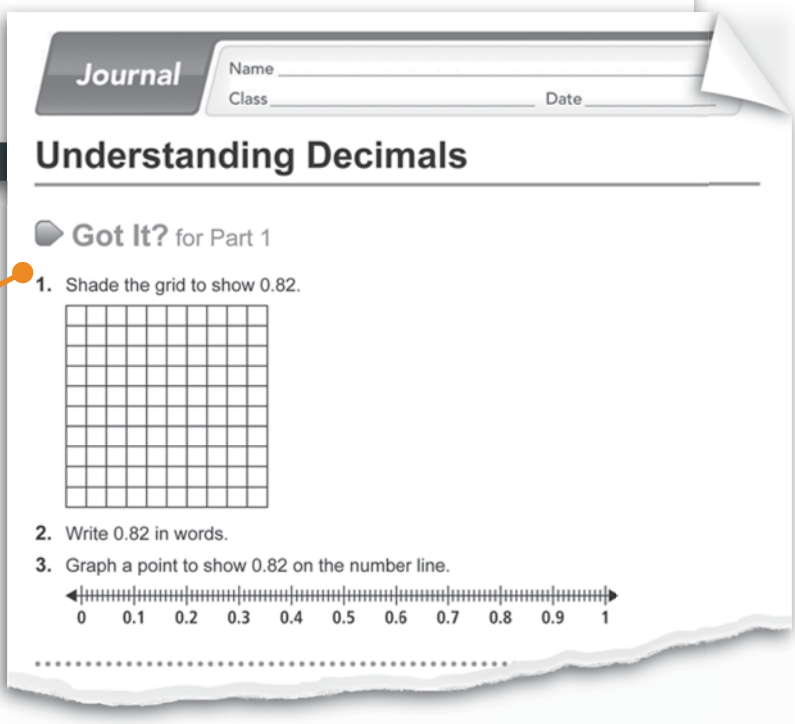
Example Features

Intervention Lessons have two parts: **Examples** and **Lesson Check**. The **Examples** provide explicit instruction, an opportunity to try a problem with scaffolding and a solution, and a **Got It?** problem to assess understanding.



Each **Intervention Lesson** has an accompanying **Journal page**, which provides students with a scaffolded resource to complete a **Got It?** for each example and to complete the **Lesson Check**. Students should print out the **Journal page** before entering the lesson.



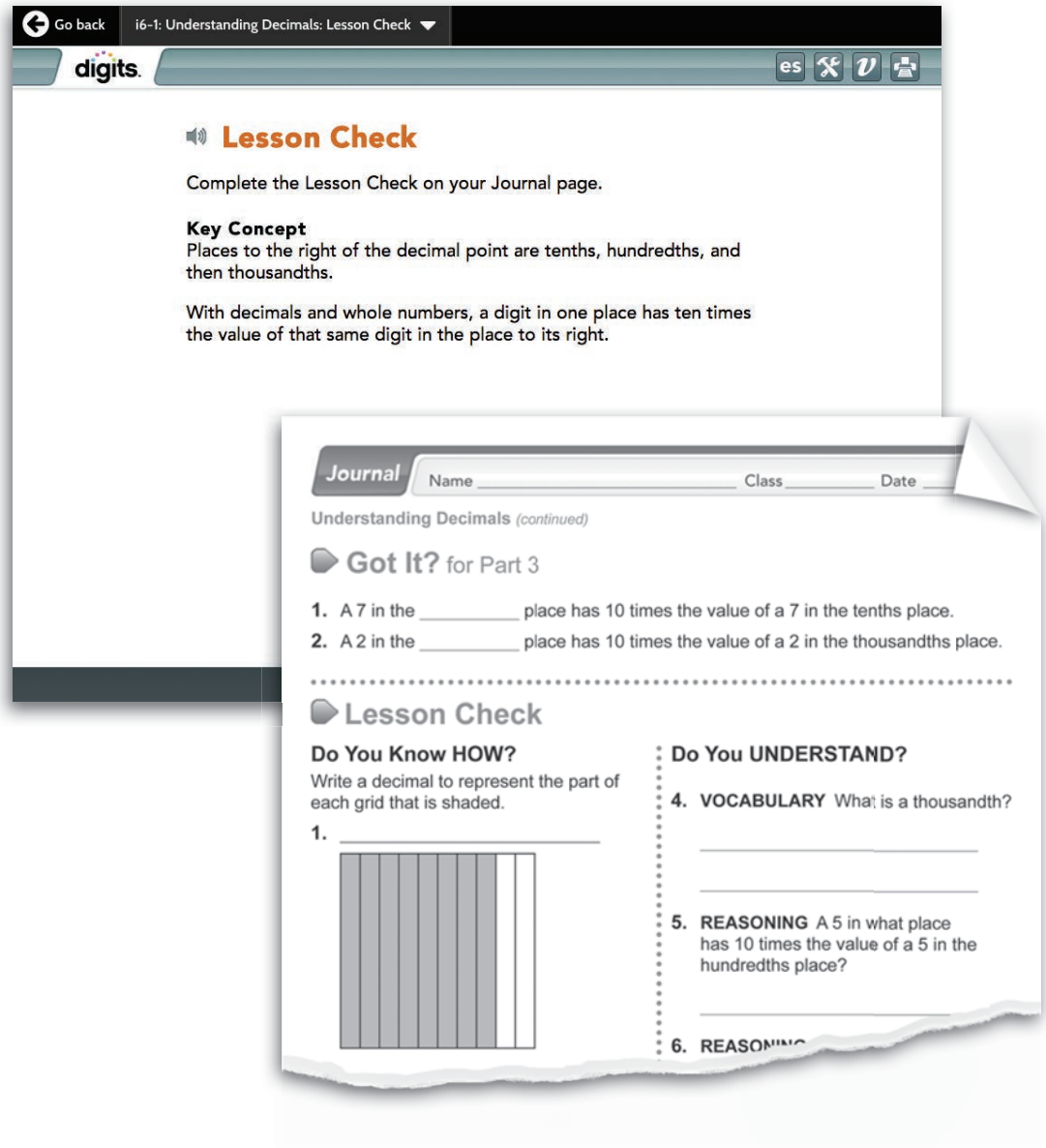


Students record work on the accompanying Journal page to share with teachers and for reference

Lesson Check Features

The **Lesson Check** reviews the **Key Concept** and provides additional problems similar to the examples in the **Do You Know HOW?** section, and questions that promote reasoning in the **Do You UNDERSTAND?** section.

Every **Intervention Lesson** is paired with automatically graded practice exercises that provide teachers with quantitative data on students' understanding of the intervention content.

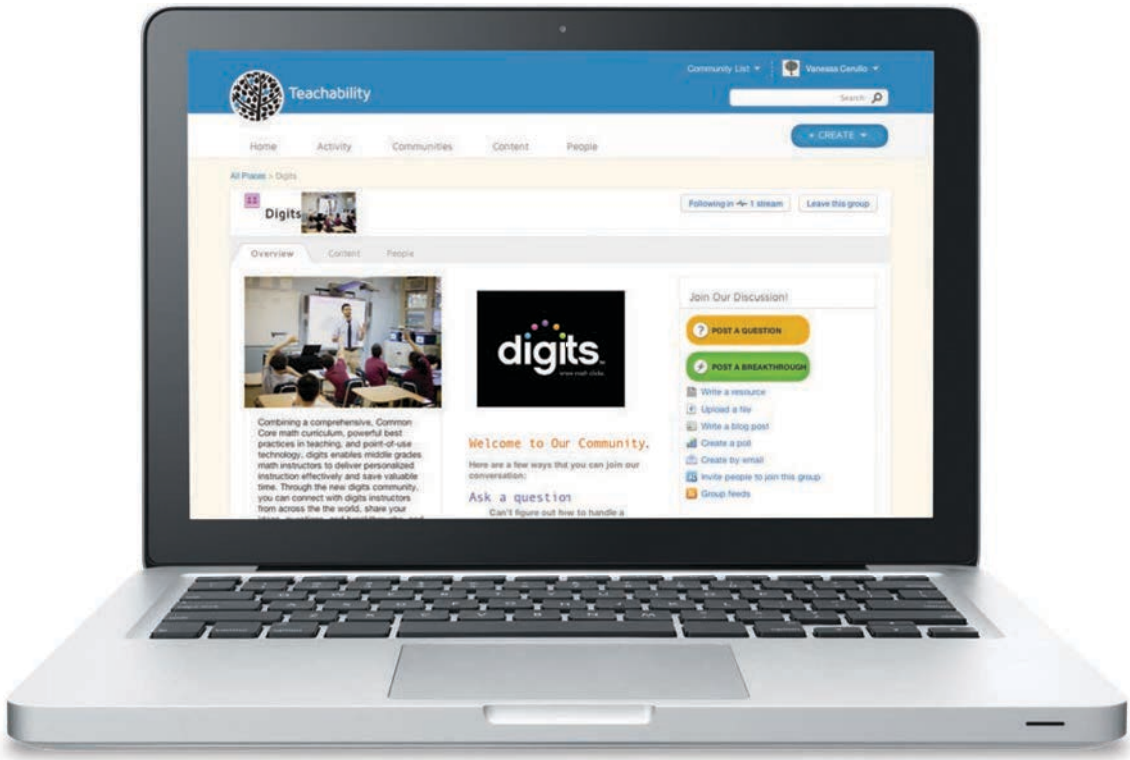


The Teacher Community

The ***digits*** Teacher Community, powered by Teachability, is an environment for passionate teachers to connect, discuss, learn and improve. This is an environment where questions are welcome and breakthroughs are celebrated. Through this private online community, you can connect with ***digits*** instructors from across the country (and the world), share your ideas, questions and breakthroughs; and in turn, explore fellow instructors' experiences, best practices and lessons learned.

To register for an account log on through the **MathDashboard.com/digits** as shown on page 12. Make sure to click on the Teacher Community icon to get to the page you see below.

You can also visit **www.teachability.com/groups/digits** and click "Request to Join Community" to become part of the group.



Questions?

If you have a Question, we want to answer it.

Easily accessed through your **MathDashboard.com/digits** login, **Questions?** provides you with additional classroom materials and product support.

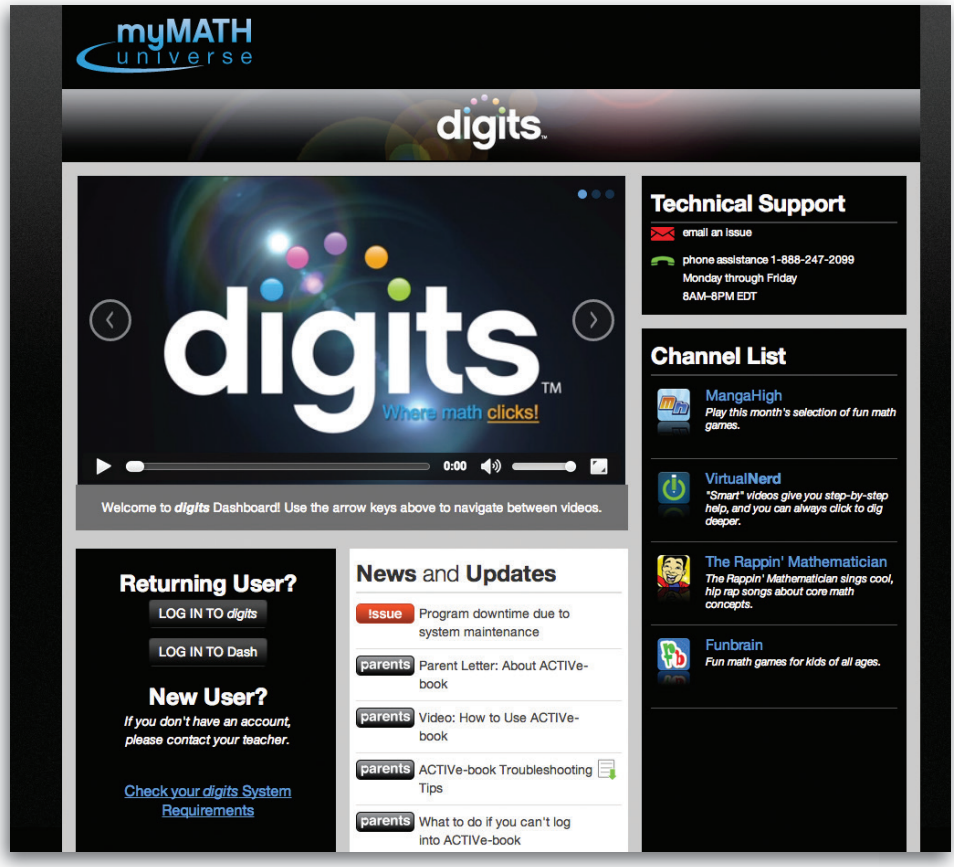
Here's just a small list of what you can do:

- Email or call for technical support.
- Download lessons to store on your computer so in the event of a power or internet outage your classroom doesn't skip a beat.
- Find more info on **Realize** and what it can do for your classroom.

The Student's Perspective

My Math Universe

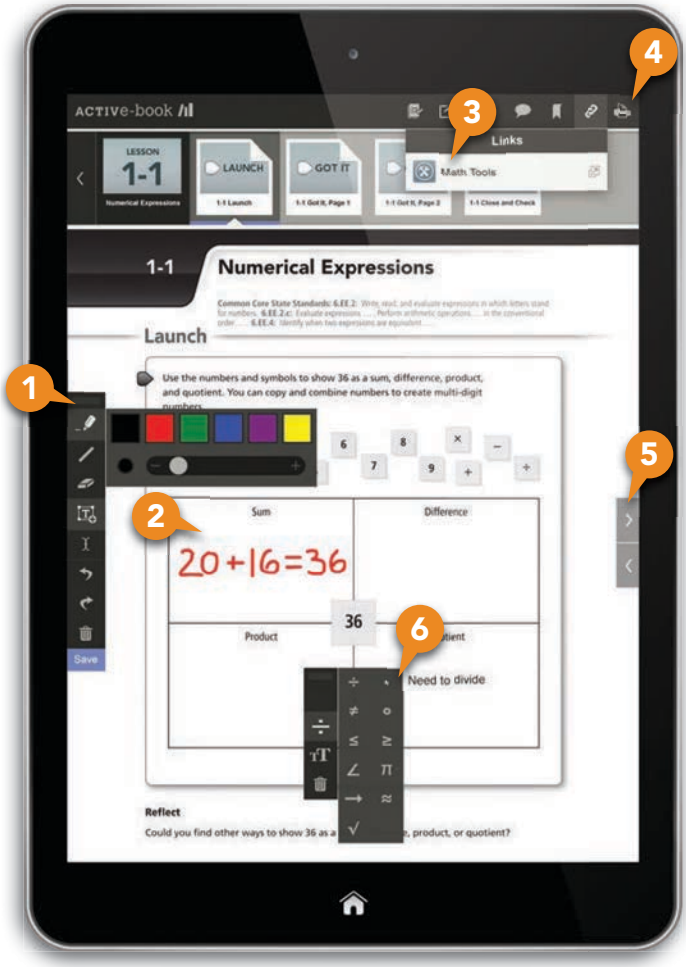
The student website is **MyMathUniverse.com**. From this website students can access math games, videos, and even extra help, all without logging in. The purpose of this content is to provoke interest and engagement in math. Students can also log in and access class lessons and assignments.



ACTIVe-book for Students

Nothing motivates students more than meaningful technology because they live in the digital world. Pearson's ACTIVe-book is a student-centered digital workspace that allows for greater student engagement with ***digits.*** The digital Student Companion, available as an ACTIVe-book, allows students to interact directly with the math on a tablet or computer. ACTIVe-books complement the program's print materials and are also ideal digital-only instructional tools.

Do more than just take notes! Interacting directly with the mathematics and using responsive **Math Tools** will help bring key concepts to life for all learners. Plus, ACTIVe-books let students move away from interactive print resources with the integrity of the instructional model intact.



1. Tools in the interactive toolbar allow students to complete their assignments online.
2. Students can write directly on the interactive work surface or use a keyboard to show their thinking.
3. Interactive **Math Tools** help bring mathematics to life.
4. Universal navigation tools make bookmarking and sharing student work so easy.
5. Easy in-text navigation – flip pages with just a single touch or use the page tiles at the top of the screen.
6. The pop-up textbox tool comes with math characters so taking notes is a breeze.

* Please note, this image is an aggregate of the many tools available within the ACTIVe-book digital textbook. Students select the most appropriate functionalities to use given the type of work they are completing.

Flexible Implementation Plan

Every middle grades classroom is different, especially when it comes to digital technology availability. ***digits*** was built to meet you wherever you fall on the technology continuum, whether low-tech, high-tech, or somewhere in between.

	Minimum Technology	Medium Technology	Maximum Technology
Classroom Hardware	Teacher computer, mouse and LCD projector	Teacher computer, LCD projector, and eBeam/slate	Teacher computer, Interactive Whiteboard
Digital Lesson Presentation	Online, Download, or DVD	Online with Download and DVD backup	Online with Download and DVD backup
Assessment	Students complete assessments with paper and pencil.	Students complete Prerequisite Assessments and tests online and complete Tests with paper and pencil. *Consider using computer lab or laptop/netbook carts*	Students complete all assessments online. *Consider using student computers, classroom computers, lab, or laptop/notebook carts*
Homework	Students complete homework with paper and pencil daily. Can be downloaded or assigned in printed ***Homework Helper*** which provides support to help students without computer access.	Students complete homework online and use printed ***Homework Helper*** as backup. *Consider scheduling computer lab time or laptop/ netbook carts or after school computer lab access.*	Students complete homework online which offers an extensive array of interactive study aides, video tutors, and manages assignments. *Consider scheduling computer lab time or laptop/netbook carts or after school computer lab access.*
Intervention	Teachers select appropriate intervention lessons to use as whole group instruction- Online, Download, or DVD. *Consider Title 1 pull-out class or after school intervention class.*	Teachers select appropriate intervention lessons to use as whole group instruction- Online, Download, or DVD. Students work online once per week to complete individualized study plans. *Consider computer lab access during study hall, Title 1 pull-out class, or after-school access.*	Teachers select appropriate intervention lessons to use as whole group instruction- Online, Download. Students work online 2 or more times per week to complete individualized study plans. *Consider computer lab access during study hall, Title 1 pull-out class, or after-school access.*
Planning	Teachers use printed Program Overview Guide, Unit and Teacher Guides for detailed support of every lesson in ***digits***.	Teachers use the Teacher Guides online. Printed Teacher's Edition Program Overview and printed Unit Teacher Guides as backup.	Teacher uses ***digits*** on Savvas Realize and delivers key teacher support via mobile device to use during the class discussion at point of use.

Teacher Name _____ **Classroom** _____

digits™ Classroom Observer Checklist

	Lesson Parts	Teacher	Student
Launch	• Introduce lesson concepts. • Build on prior knowledge. • Provide motivation for learning math concepts in today's lesson. • Enable student-oriented mathematical exploration and discourse for deeper conceptual understanding.	☐ Displays **Launch** for class. ☐ Fosters a student driven environment where students can work alone or together. ☐ Invites students to share their solution strategies on an interactive whiteboard, when appropriate. ☐ Poses the **Focus Question** for students to introduce the concepts of today's lesson.	☐ Views the **Launch** problem projected in class or in **Student Companion** and participates in class discussion. ☐ Make sense of, break down, and solve **Launch** problem in **Student Companion** (print or ACTIVe-book). ☐ Reflects/connects their work in the **Launch** problem to larger mathematics concepts and the real world. ☐ Focuses and records thinking on the **Focus Question.**
Examples and Key Concepts	• Multiple **Examples** plus a **Key Concept**. • Instruction of lesson concepts. • Each includes a **Got It?**	☐ Displays and walks through **Examples** with students. ☐ Encourages students to share solution strategies at the interactive whiteboard. ☐ Presents the **Got It?** to check students' understanding of each **Example**, and modifies teaching accordingly. ☐ Displays and reviews **Key Concepts** with class.	☐ Works collaboratively or independently on solutions in print **Student Companion** or ACTIVe-book. ☐ Demonstrates understanding of lesson concepts by completing **Examples** and **Got Its** of increasing difficulty. ☐ Uses interactive **Math Tools**, when appropriate.
Close and Check	• Review **Focus Question** • **Do You Know HOW?** • **Do You UNDERSTAND?**	☐ Reintroduces **Focus Question** and asks students to think about ways to apply the concepts of the lesson. ☐ Encourages student-led discourse on key concepts of today's lesson. ☐ As class works through **Close and Check** exercises in their **Student Companions**, works with individual students, as necessary.	☐ Works with a partner or independently on **Close and Check** questions in print **Student Companion** or ACTIVe-book. ☐ Demonstrates mastery of lesson concepts in response to **Do You Know HOW?** questions. ☐ Successfully demonstrate in-depth comprehension of lesson concepts and higher-order thinking by working through **Do You UNDERSTAND?** questions.