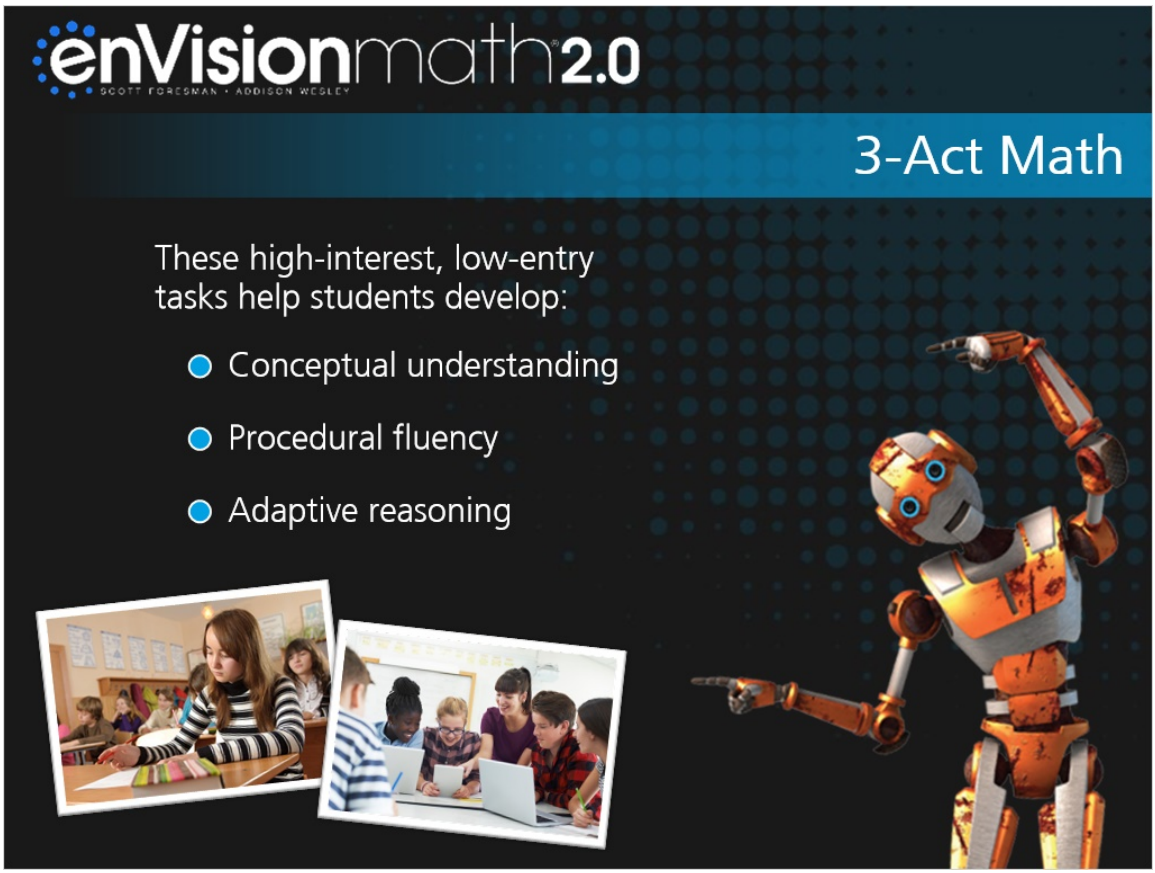
enVisionmath2.0 Grades 6-8
3-Act Math

Introduction

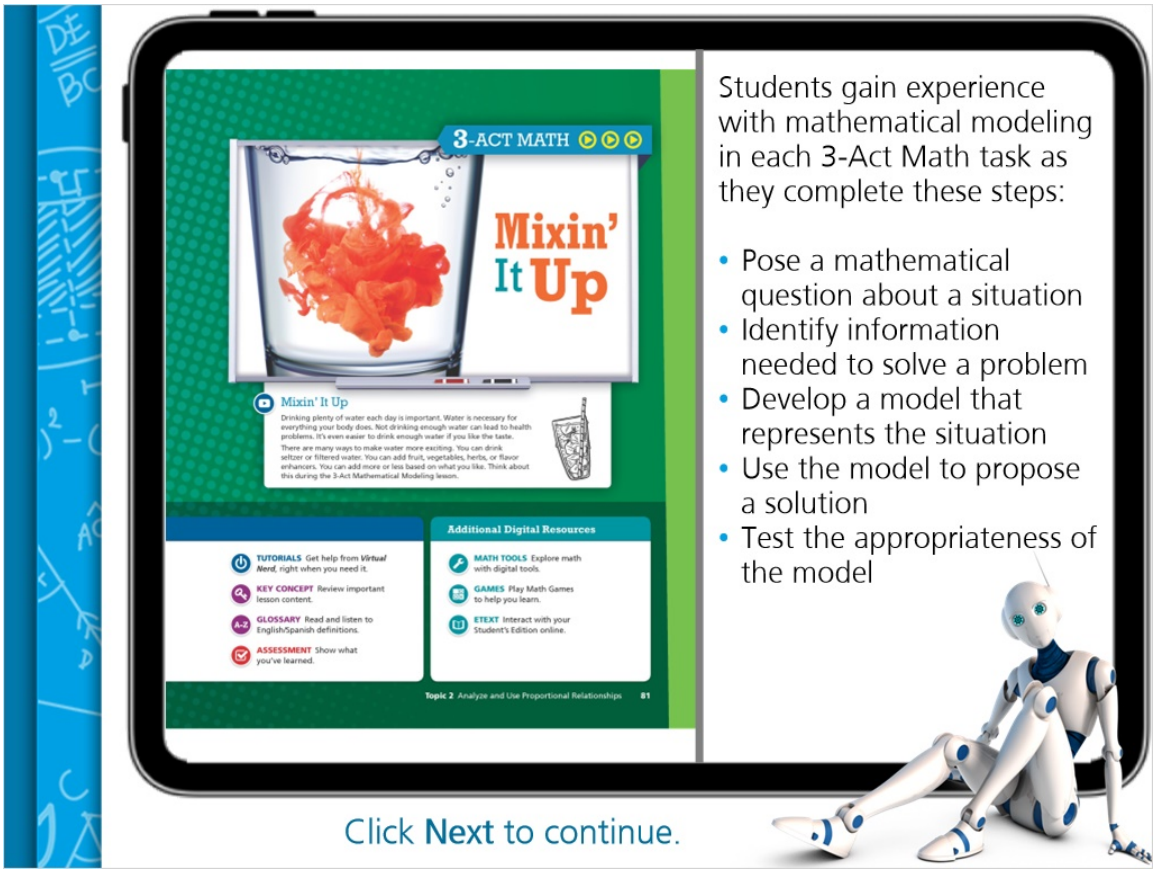


Hi, enVision teachers! I'm glad you want to learn about 3-Act Math tasks.

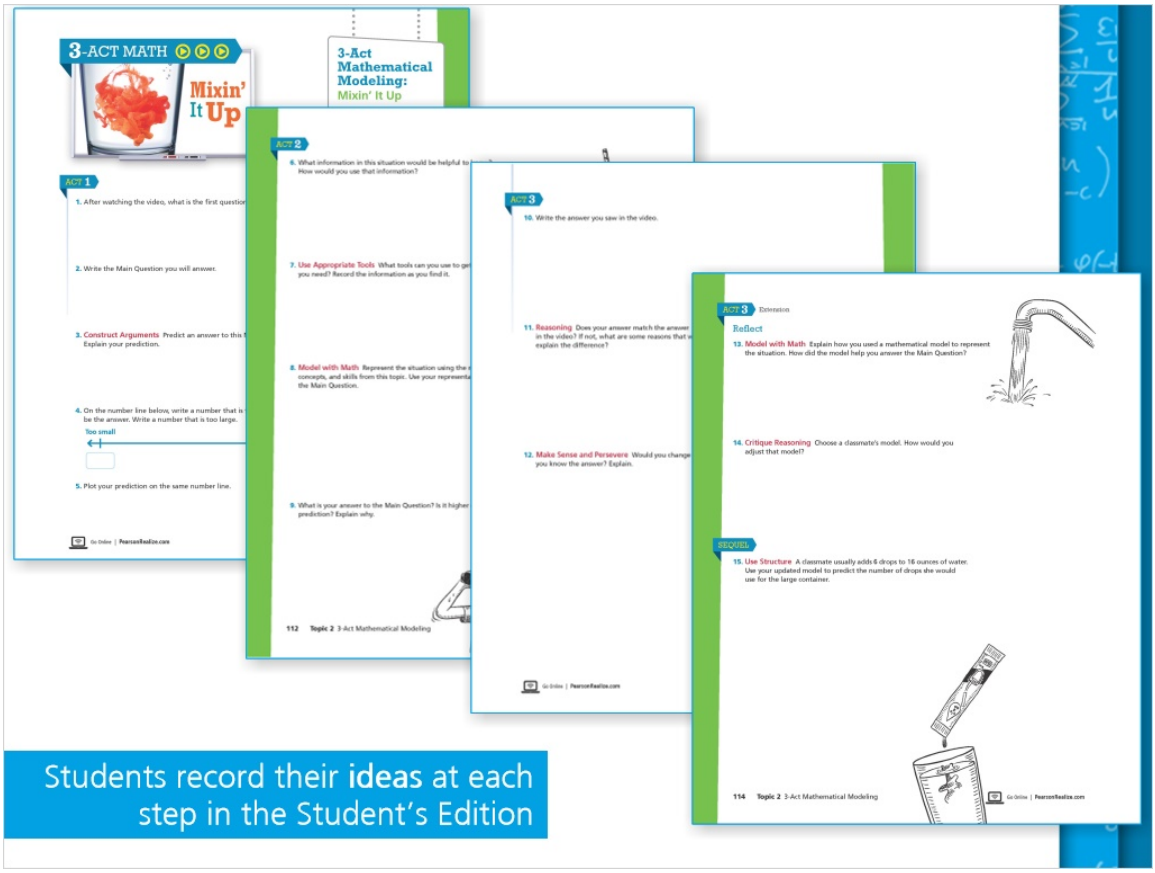
These high-interest, low-entry tasks help all students develop conceptual understanding, procedural fluency, and adaptive reasoning as they test out different models and conjectures.

Let's dig in so you can see how these tasks help students learn to use mathematical models to solve real-world problems.

Quick Tip


3-ACT MATH
Mixin' It Up
Mixin' It Up
Drinking plenty of water each day is important. Water is necessary for everything your body does. Not drinking enough water can lead to health problems. It's even easier to drink enough water if you like the taste.
There are many ways to make water more exciting. You can drink seltzer or filtered water. You can add fruit, vegetables, herbs, or flavor enhancers. You can add more or less based on what you like. Think about this during the 3-Act Mathematical Modeling lesson.
Additional Digital Resources
TUTORIALS Get help from Virtual Nerd, right when you need it.
KEY CONCEPT Review important lesson content.
GLOSSARY Read and listen to English/Spanish definitions.
ASSESSMENT Show what you've learned.
MATH TOOLS Explore math with digital tools.
GAMES Play Math Games to help you learn.
ETEXT Interact with your Student's Edition online.
Topic 2 Analyze and Use Proportional Relationships 81
Students gain experience with mathematical modeling in each 3-Act Math task as they complete these steps:
• Pose a mathematical question about a situation
• Identify information needed to solve a problem
• Develop a model that represents the situation
• Use the model to propose a solution
• Test the appropriateness of the model
Click Next to continue.

Planning and Pacing



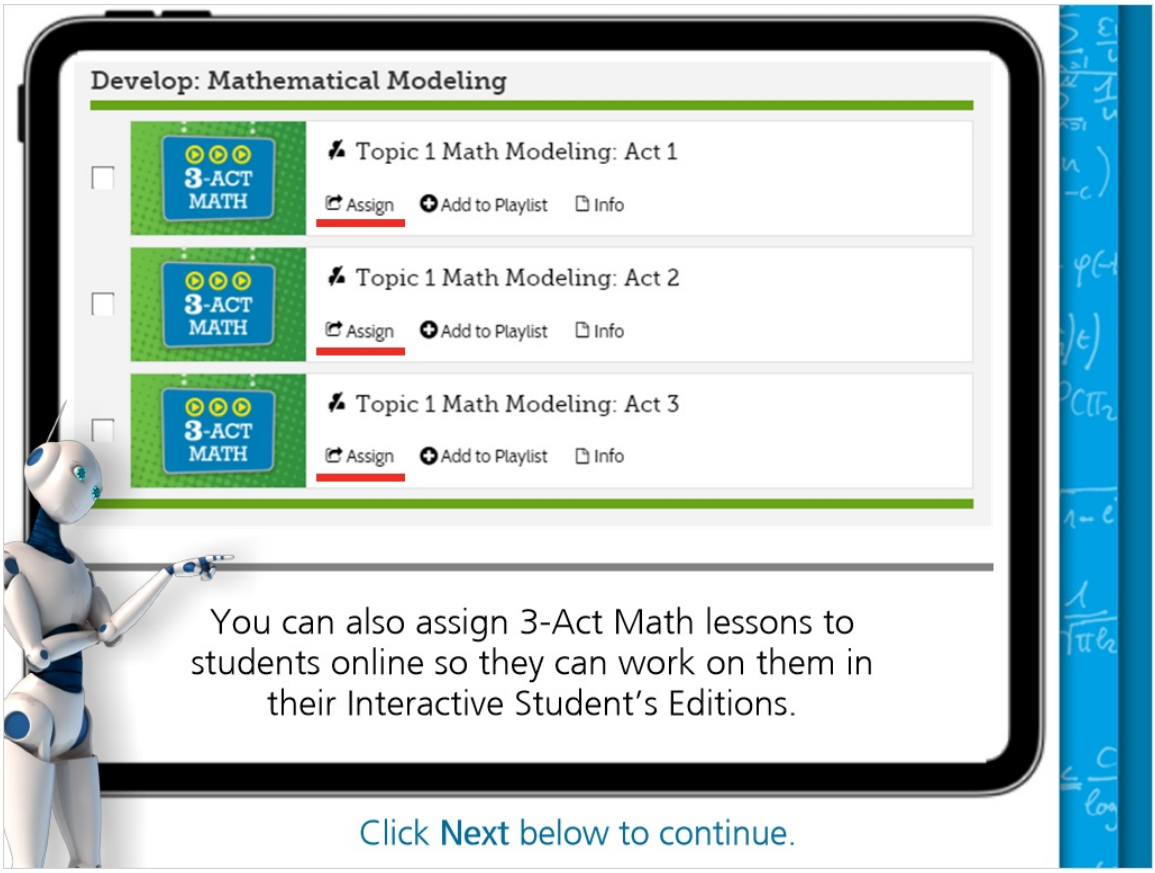
There is a 3-Act Math lesson in every topic; plan to teach it as the lesson for the day.

The 3-Act Math lesson can be at the beginning, in the middle, or at the end of a topic, depending on when students will have learned the relevant content. Find pacing details in the Table of Contents of your Teacher's Edition.

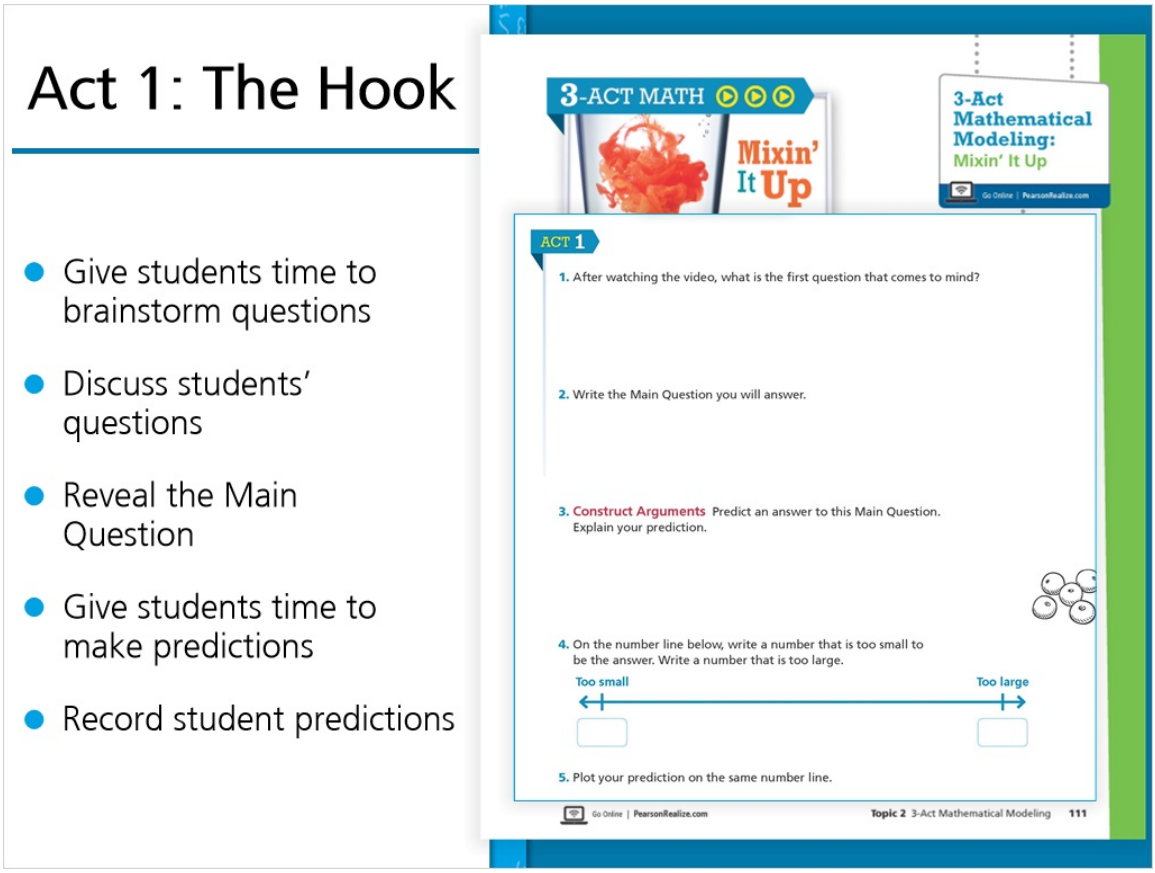
Use the Topic Overview to preview and plan for the task. Use the 3-Act Math Preview page in the Student's Edition to generate student interest at the beginning of the topic.

When teaching the lesson, play the videos from your computer and have students record their ideas at each step in their Student's Editions.

Quick Tip


Develop: Mathematical Modeling
Topic 1 Math Modeling: Act 1
Assign
Add to Playlist
Info
Topic 1 Math Modeling: Act 2
Assign
Add to Playlist
Info
Topic 1 Math Modeling: Act 3
Assign
Add to Playlist
Info
You can also assign 3-Act Math lessons to students online so they can work on them in their Interactive Student's Editions.
Click Next below to continue.

Act 1: The Hook

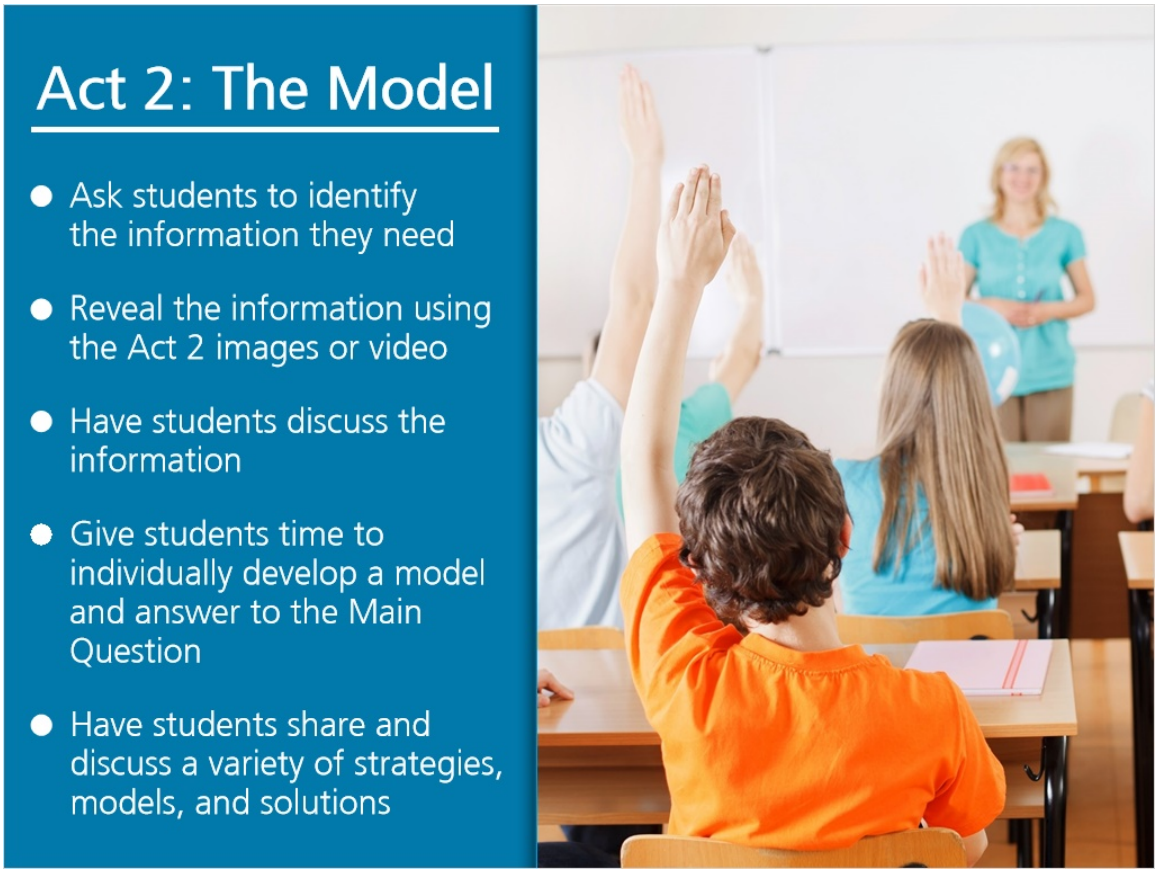


In Act 1: The Hook, play the Act 1 video. The video presents a problem situation and provides just enough information to get students thinking and talking.

Give students time to brainstorm possible questions they have about the video. Students can write their questions in the Student's Edition.

Have students share some of their questions, and then reveal the Main Question. Give students time to predict answers to the Main Question. Finally, ask them to share their ideas and record their predictions for the whole class to see.

Act 2: The Model



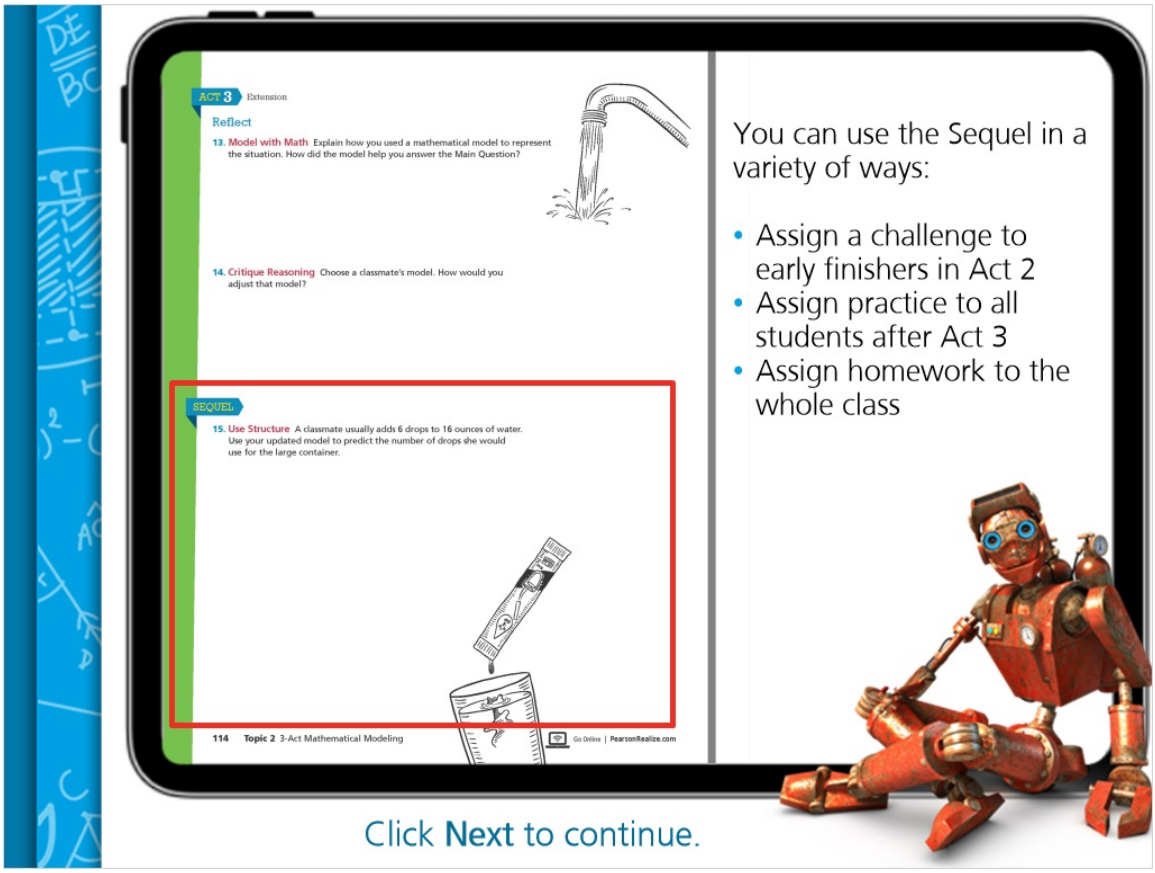
In Act 2: The Model, ask students to identify information they need to answer the Main Question.

After you collect students' ideas, reveal the information in Act 2. Ask students to discuss whether this information matches their expectations and predictions.

Then ask students to work individually to develop a model and solution to the Main Question. Encourage them to use any model to arrive at a solution that makes sense to them.

Have students share and discuss their strategies. Make sure to discuss a variety of different models and solutions.

Quick Tip


ACT 3 Extension
Reflect
13. Model with Math Explain how you used a mathematical model to represent the situation. How did the model help you answer the Main Question?
14. Critique Reasoning Choose a classmate's model. How would you adjust that model?
SEQUEL
15. Use Structure A classmate usually adds 6 drops to 16 ounces of water. Use your updated model to predict the number of drops she would use for the large container.
114 Topic 2 3-Act Mathematical Modeling
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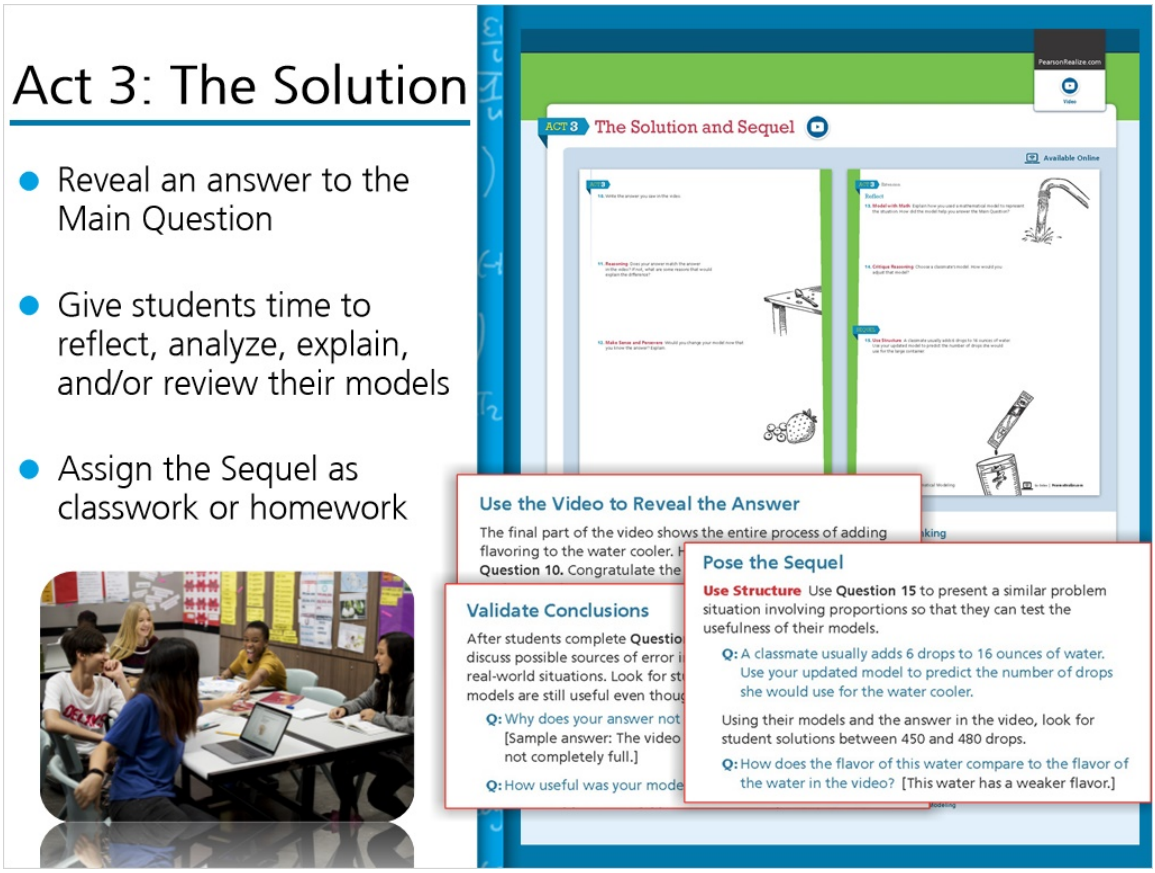
You can use the Sequel in a variety of ways:
• Assign a challenge to early finishers in Act 2
• Assign practice to all students after Act 3
• Assign homework to the whole class
Click Next to continue.

Act 3: The Solution



In Act 3: The Solution, play the video to reveal an answer to the Main Question.

Give students time to reflect, analyze, and explain differences between their answers and the actual solution. Lead a discussion to help students develop the math practices, and give students time to revise their models or work on the Sequel.

Quick Tip


Teacher's Edition
Program Overview
Grade 7
enVisionmath2.0
For more information, check out the 3-Act Math section of your *Teacher's Edition Program Overview.*
Click **Next** to continue.

Closing

Thanks for learning more about 3-Act Math tasks! These tasks provide an engaging way for students to learn mathematical modeling skills that they'll use throughout their lives!

Keep digging in to My Savvas Training to learn more about **enVision** Mathematics!