enVisionMATH 2015 California - Program Overview

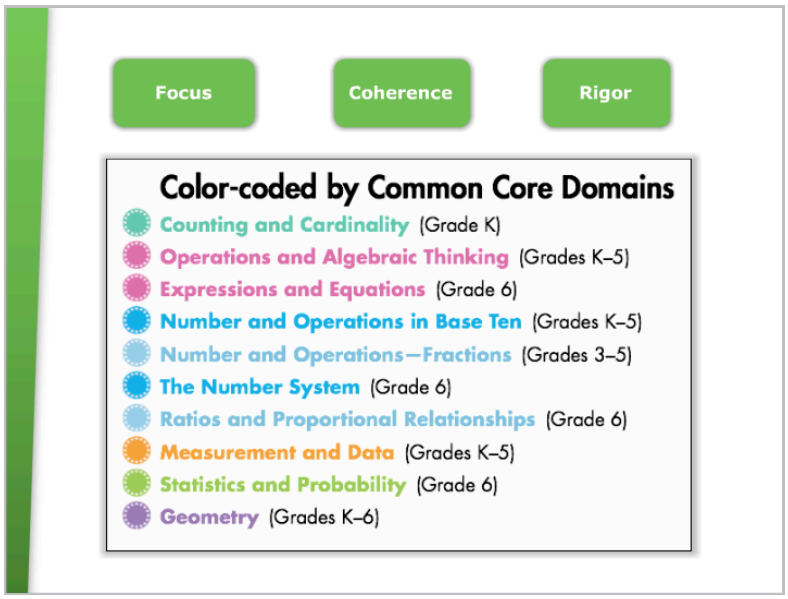
Introduction

Today we'll explore the enVisionMATH® California Common Core program.

We'll investigate the foundations and organization of the program and how they support the California Common Core State Standards for Mathematics.

We'll also explore the print and digital resources for teachers and students, and learn about program assessment tools and opportunities for differentiated instruction.

Foundations



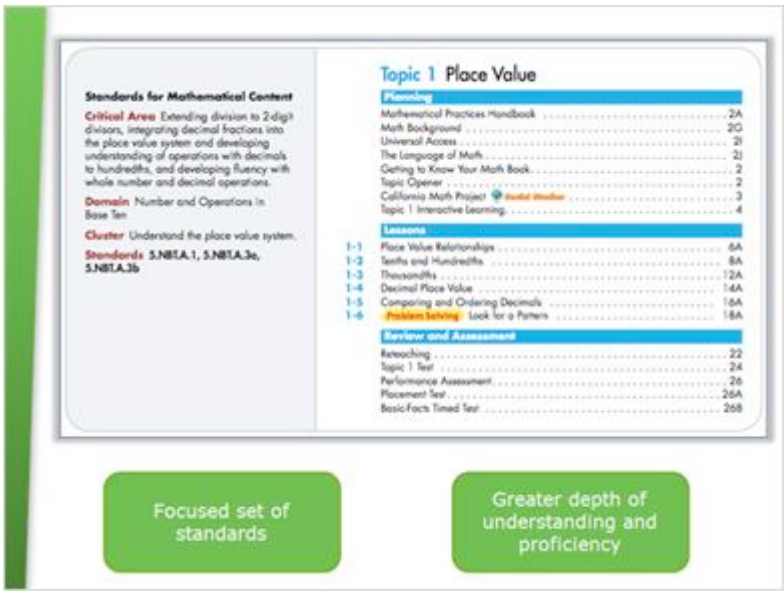
enVisionMATH® California Common Core is a comprehensive mathematics curriculum that is organized to promote Focus on Common Core topics. Topics develop Coherence across grade levels, and lay the foundation for Rigor with a balance of conceptual understanding and procedural fluency. These foundations lead to the ability to solve real-world math problems.

The program extends focus and coherence by making explicit the Big Ideas in mathematics that students need to know and by showing how those ideas are related.

A Big Idea in mathematics is a statement of an idea that is central to learning mathematics; it links numerous smaller ideas-called Essential Understandings-into a coherent whole.

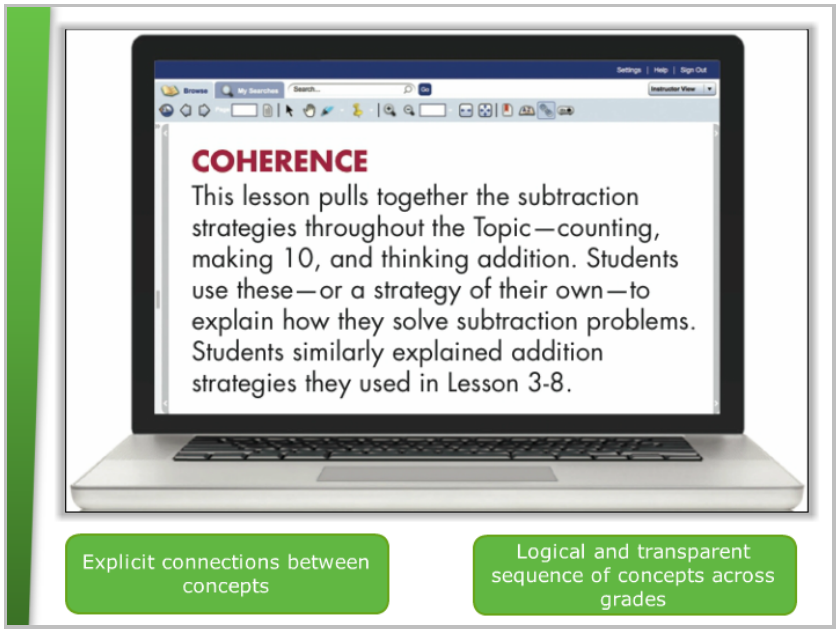
To convey the power of Big Ideas to students, they are translated into student-friendly Essential Questions presented at the beginning of each topic. Essential Questions focus students' attention on what they will be learning throughout a topic and what they will be able to do and understand at the end of a topic.

Focus



A focused set of standards narrows the scope of concepts taught. With greater focus in the curriculum, students study fewer topics helping them to achieve greater depth of understanding and proficiency.

Coherence



A coherent set of standards connects the learning within and across the grades so that students are more easily able to build on and expand their knowledge.

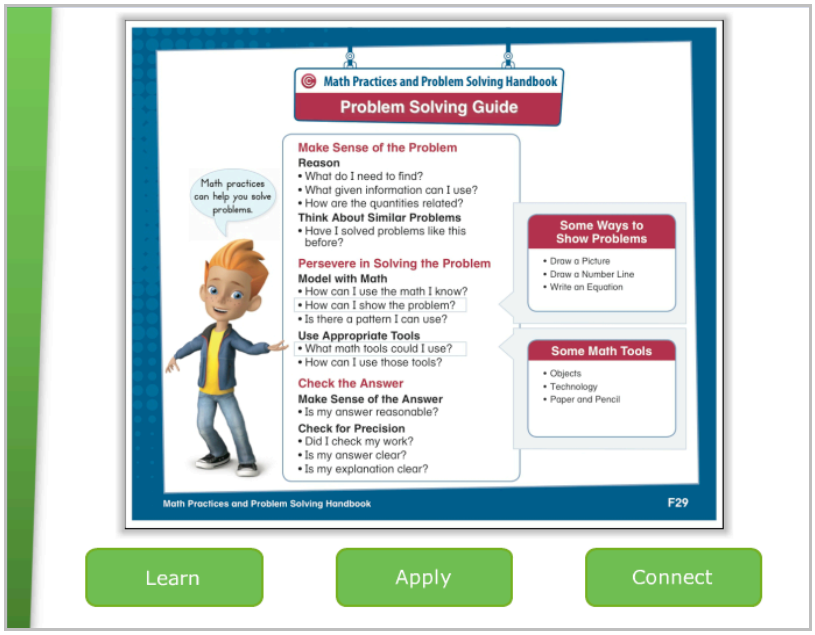
A coherent curriculum presents each new topic as an extension of previous learning, not as a new learning event.

The curriculum makes explicit connections between seemingly unrelated concepts within a grade and presents a logical and transparent sequence of concepts across grades.

Rigor

A rigorous set of standards emphasizes conceptual understanding, procedural skills and fluency, and application of concepts in problem-solving situations. A rigorous curriculum goes beyond procedural knowledge and fosters student understanding of important concepts from different perspectives. Students in all grade levels will have ample opportunities to apply these important concepts and skills in real-world situations.

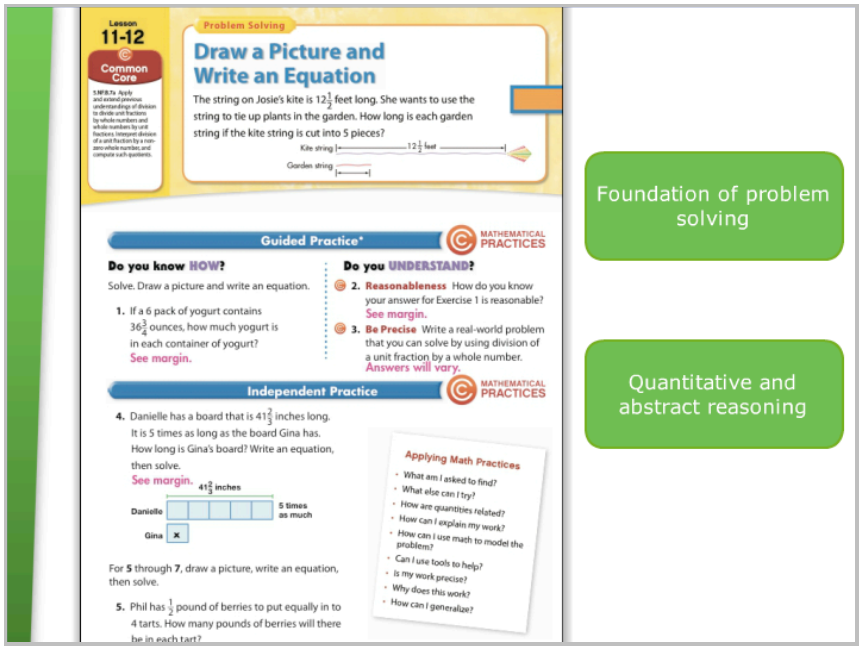
Support for Mathematical Practices



enVisionMATH® California Common Core provides numerous instructional opportunities for you to help students develop proficiency in the math practices.

To get students off to a good start, use the Math Practices and Problem Solving Handbook pages in the student edition along with the supporting animations early in the year. The handbook and animations will help students learn, apply, and connect the math practices.

Scaffolded Instruction



Foundation of problem solving

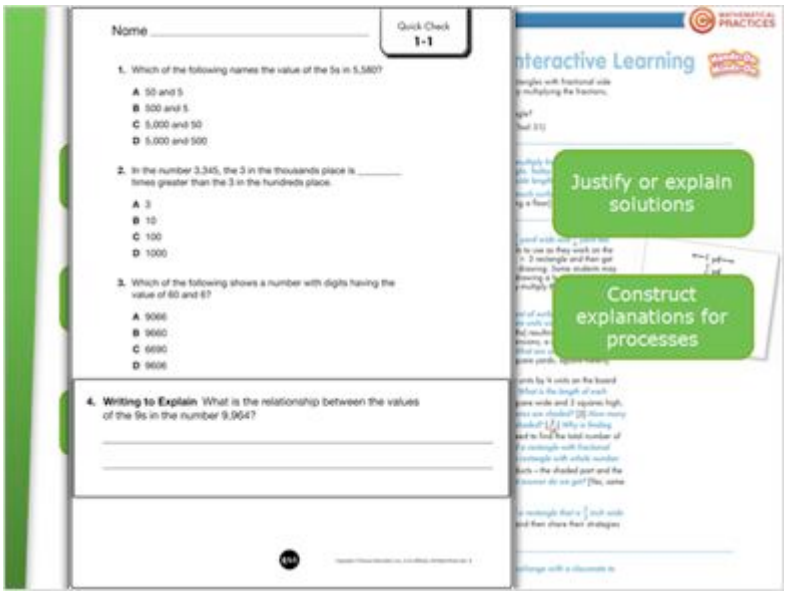
Quantitative and abstract reasoning

enVisionMATH® California Common Core was built on a foundation of problem solving. From the Problem-Based Interactive Learning to the Problem Solving exercises, each lesson offers students multiple opportunities to develop both quantitative and abstract reasoning.

In the Visual Learning portion of the lesson, students can see how to represent a given situation numerically or algebraically. They will have opportunities later in the lesson to reason abstractly as they work to represent situations symbolically.

In the *Do You Understand?* part of the Guided Practice, students gain experiences with quantitative reasoning as they consider the meaning of different parts of an expression or equation.

Problem-Based Interactive Learning

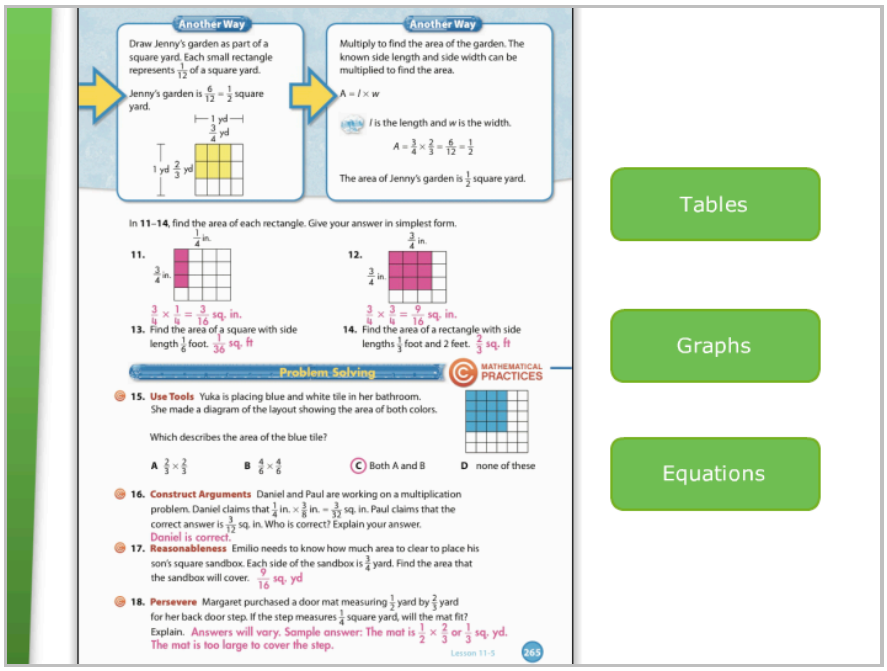


In enVisionMATH® California Common Core, the Problem-Based Interactive Learning, or PBIL, affords students opportunities to share with classmates their thinking about problems, their solution methods, and their reasoning about the solutions.

Reasoning exercises found throughout the program specifically call for students to justify or explain their solutions.

Writing to Explain exercises help students develop foundational critical-reasoning skills by having them construct explanations for processes.

Model with Mathematics

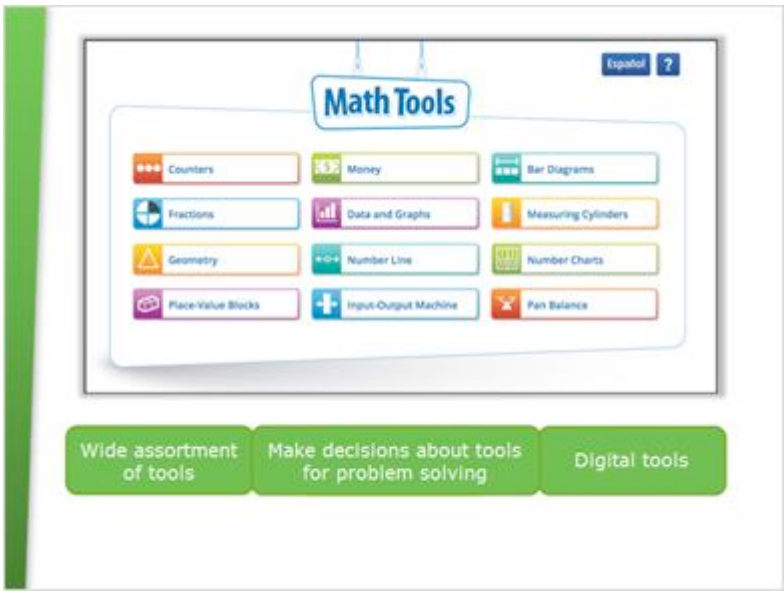


Students in enVisionMATH® California Common Core are introduced to mathematical modeling in the early grades.

They first use manipulatives to model addition and subtraction situations.

In later grades, students expand their modeling skills to include representations such as tables and graphs, as well as equations.

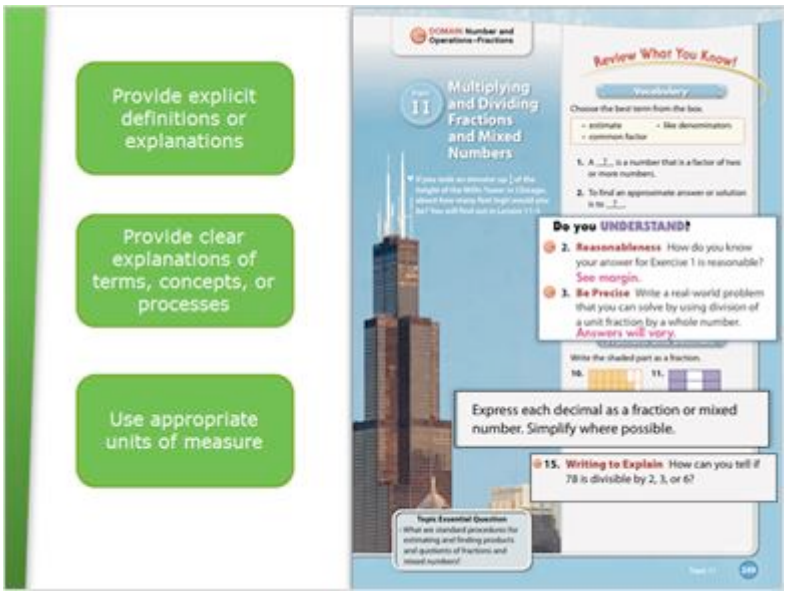
Mathematical Tools



Students become fluent in the use of a wide assortment of tools ranging from physical objects, including manipulatives, rulers, protractors, and pencil and paper, to digital tools, such as the online Math Tools shown here.

As students become more familiar with the tools available to them, they are able to begin making decisions about which tools are most helpful in solving a given problem.

Terms, Concepts, and Practices

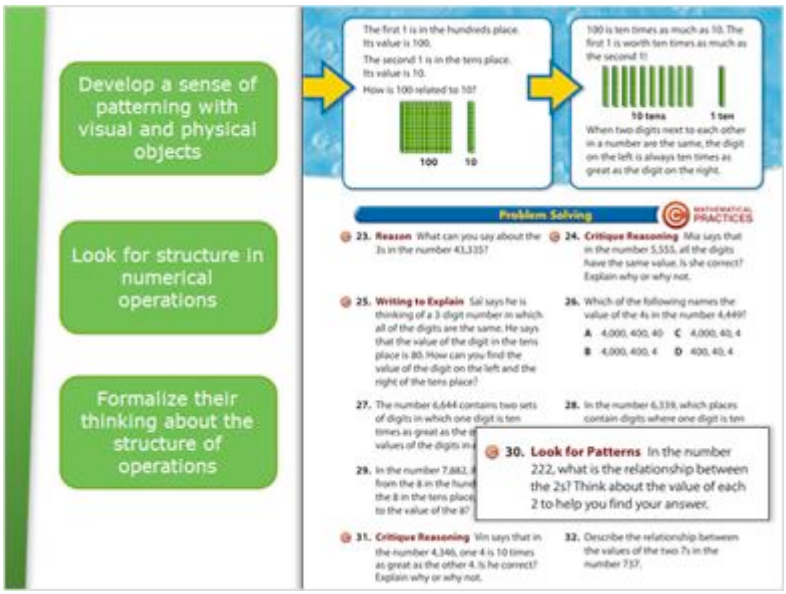


Key terms and concepts are highlighted in each lesson. In the *Do You Understand?* feature, students revisit these key terms or concepts and provide explicit definitions or explanations.

For the *Writing to Explain* and *Think About the Structure* exercises, students are asked to use precise language to provide clear explanations of terms, concepts, or processes.

Students are reminded to use appropriate units of measure in their solutions as well as labels for diagrams, graphs, and other kinds of displays.

Structure

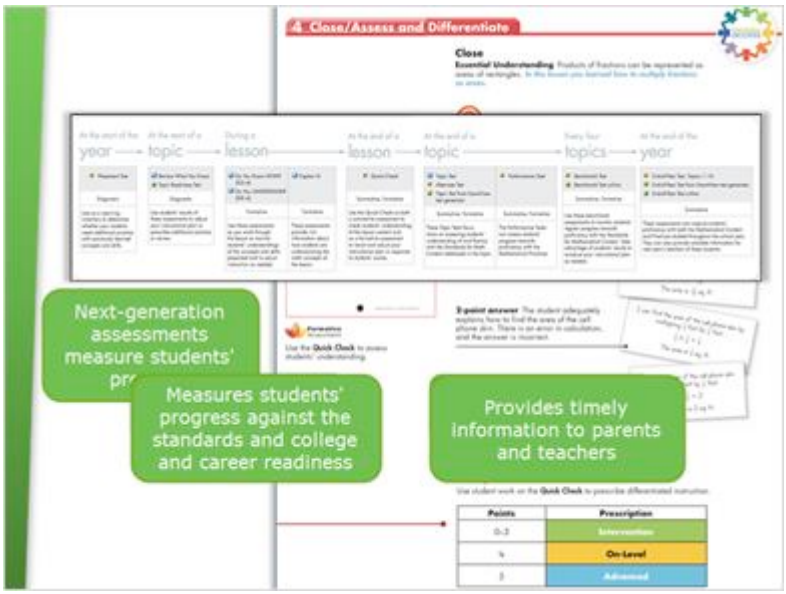


Students are encouraged to look for structure as they develop their solutions. In the *Look for a Pattern* problem-solving lessons, students in the early grades develop a sense of patterning with visual and physical objects.

As students mature in their mathematical thinking, they look for structure in numerical operations by focusing on place value and properties of operations.

This focus on looking for and recognizing structure enables students to draw from patterns as they formalize their thinking about the structure of operations.

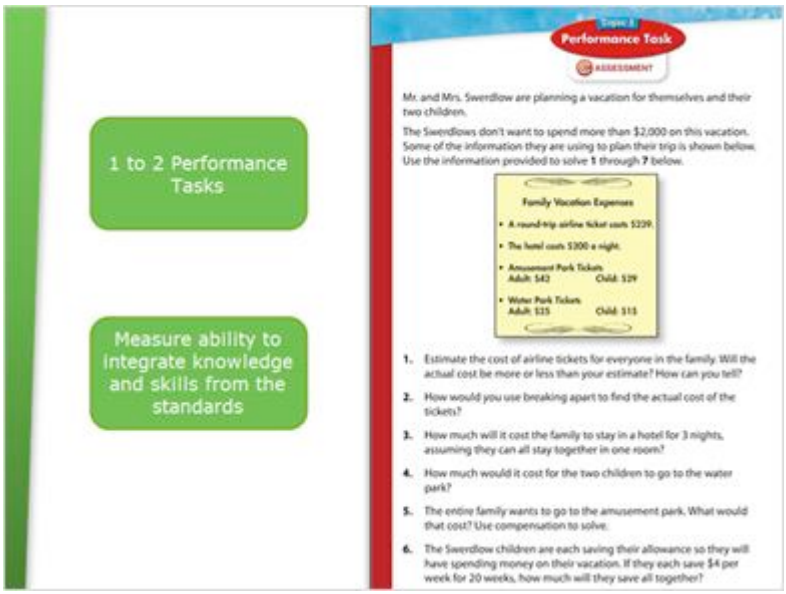
Next-Generation Assessments



The adoption and implementation of the Common Core State Standards for Mathematics is an important step to improving students' math skills. enVisionMATH® California Common Core uses next-generation assessments to measure students' progress against these new standards.

These assessments consist of Performance Tasks and an End-of-Year Adaptive Assessment, which measures students' progress against the standards and provides a common measure of college and career readiness. The End-of-Year Adaptive Assessment uses new technologies so that parents and teachers have timely information about student performance.

Performance Tasks

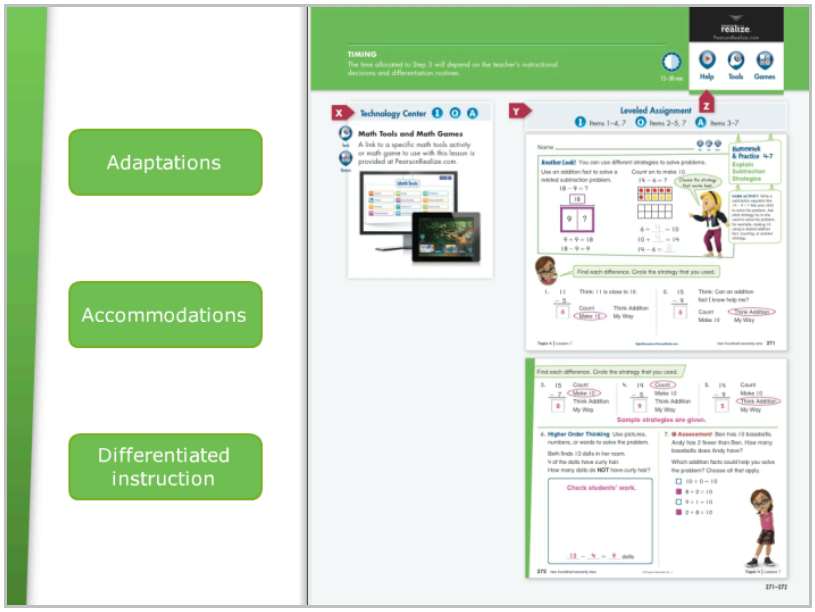


Students complete one to two Performance Tasks during the last 12 weeks of the school year. These tasks measure their ability to integrate knowledge and skills from the Common Core State Standards for Mathematics.

End-of-Year Adaptive Assessment

The End-of-Year Adaptive Assessment is administered near the end of the school year. This assessment is delivered online and provides automatic scoring and reporting for an accurate reflection of student achievement.

Differentiated Instruction

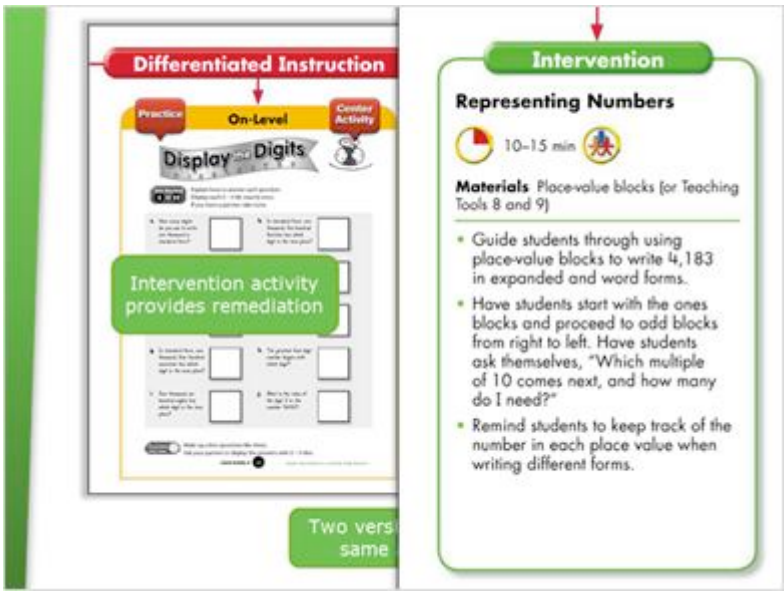


enVisionMATH® California Common Core provides adaptations, accommodations, and differentiated instruction for all learners.

Each lesson ends with a Quick Check Master. The Quick Check always includes a constructed-response item that asks students to explain concepts presented.

A scoring rubric is provided for the constructed-response item. The rubric includes three levels of performance and samples of student work for each performance level. Teachers can assign students the appropriate level of instruction based on their scores. Quick Checks are also available as interactive assessments online.

Center Activities



The Center Activities also provide differentiated instruction for students. Each lesson has two versions of the same activity; one for on-level students and one for advanced students.

For students in need of remediation, the intervention activity revisits the lesson concepts.

Conclusion

A focused and coherent mathematics curriculum makes possible in-depth student understanding, which in turn leads to higher student achievement. When students know that mathematics is grounded on Big Ideas, not just skills, and that those ideas are connected, they will better understand mathematics.

enVisionMATH® California Common Core embraces and enhances the focus and coherence vision of the Common Core State Standards, leading to higher achievement for all students.

Thank you for taking the time to learn about the enVisionMATH® California Common Core program.