THE SCHOOL DISTRICT OF PHILADELPHIA OFFICE OF CURRICULUM, INSTRUCTION, AND ASSESSMENT MATH TEXTBOOK RUBRIC



Network:	Date:
Name:	Product: enVisionmath2.0 Grades K-5 ©2016
Vendor: (Please check off the Vendor from the list below)	Content Area: Mathematics
Great Minds	Targeted Area: Grades K-5
Houghton Mifflin	IT/ETG Review:
McGraw Hill	Publisher: Pearson
X Pearson	

3 = Extensive	2 = Sufficient	1 = Weak	0 = Non-Existing
Meets all of the criteria	Meets most of the criteria	Meets some of the criteria	Does not meet any of the criteria

Categories

I. Materials align to PA Common Core Standards for Mathematics

- Content Standards alignment to PA Common Core Standards has Common Core State Standards (CCSS) correlation
- Standards for Mathematical Practice are routinely reinforced with suggestions and resources provided for implementation
 - Make sense of problem and persevere in solving them; Reason abstractly and quantitatively; Construct viable arguments and critique the reasoning of others; Model with mathematics; Use appropriate tools strategically; Attend to precision; Look for and make use of structure; Look for and express regularity in repeated reasoning.)
- Standards for Mathematical Practice are connected to Reading, Writing, Speaking and Listening Standards

Rating	3	2	1	0
Evidence:				



Content Standards alignment to PA Common Core Standards has Common Core State Standards (CCSS) correlation

enVisionmath2.0 provides 100 percent alignment to both the Common Core and the PA Core Standards for Mathematics. Correlations are available at http://www.pearsonschool.com/pa.

In order to ensure complete coverage of the Pennsylvania Eligible Content, Pearson has developed three additional components specifically for Philadelphia:

- enVisionmath2.0 Pennsylvania Core Companion
 - At those grades where the existing enVisionmath2.0 does not have complete coverage of the Eligible Content, a Student Companion will be delivered that provides full enVisionmath2.0 lessons targeted to those standards. For those grades not requiring additional lesson there is not a Student Companion.
 - Each Student Companion is a consumable component and will be delivered with each Student Edition purchased.
 - Corresponding additional lessons will be included in the **enVision**math**2.0** digital courseware.
- enVisionmath2.0 Pennsylvania Teacher's Edition Program Overview
 - Provides an overview of the **enVision**math**2.0** program and how it supports the Pennsylvania Core Standards.
 - Includes correlations to the Pennsylvania Core standards.
 - Includes all teacher support and black-lined masters for those grades with the Pennsylvania Core Companion.
- enVisionmath2.0 Pennsylvania Snap-In Tabs
 - Provides point-of-use support for the Pennsylvania Core Standards with the two Teacher's Edition volumes.
 - Provided one per topic and will include the standards alignment to each lesson along with the detailed language for each standard.

Standards for Mathematical Practice are routinely reinforced with suggestions and resources provided for implementation

enVisionmath2.0 infuses all math practices during instruction, practice, and assessment and provides opportunities to focus on specific math practices.



Categories

I. Materials align to PA Common Core Standards for Mathematics

All math practices are treated as habits of mind, processes, and dispositions that enable a learner to understand mathematics and to use mathematics with understanding. The program identifies Thinking Habits questions for each math practice. Math practices are infused and discussed on a daily basis starting from Day 1. In addition, special Math Practices and Problem Solving lessons are also provided (K–5) as opportunities to focus on specific math practices. Flagged comments and problems in all lessons focus on specific math practices.

At all grades, math practices are assessed with the content standards and rubrics are provided for assessing students' overall proficiency with each math practice.

Math Practices Instruction to Use Anytime

Math Practices and Problem Solving Handbook. This handbook at the front of the Student Edition provides instruction on math practices and problem solving. The Teacher Edition provides support for developing, connecting, and assessing each math practice.

Math Posters and Animations. There is a poster and animation for each math practice. They can be used anytime throughout core instruction as an aid to support discussion of a specific math practice.

Math Practices in Lessons

Teacher Edition. Every lesson in the Teacher Edition explicitly identifies the Content Standard and the Standards for Mathematical Practice. Each Topic Overview discusses the math practices that are intrinsic to the lessons. The Teacher Edition Lesson Overview includes lesson-specific instructional support for Focus (Domain, Cluster, Content Standard, and Mathematical Practice), Coherence, and Rigor.

Core Instruction Driven by a Marriage of Content and Math Practices. Math practices are infused and explicitly highlighted in lesson instruction. First, comments related to math practices are given during problem-based learning. Look for Math Practices boxes throughout the lesson that model the thinking these practices embody.

Math Practices and Problem Solving Lessons (grades K–5). These lessons are opportunities to stop and focus on a specific math practice. To enhance proficiency with a math practice, the lesson instruction offers Thinking Habits questions for that math practice and models thinking related to that math practice when solving a rich problem. These lessons also provide practice with the kinds of rich problems students will encounter on high-stakes performance-based assessments. The program assesses math practices with content standards and provides rubrics in the Teacher Edition and in the Assessment Sourcebook.



Evidence

- Please review any Cluster Overview page reference in the Teacher's Edition Table of Contents for each Topic. For example, Math Practices page 1F.
- Teacher's Edition Program Overview pages 34–35, 54–55, 56–57.

Standards for Mathematical Practice are connected to Reading, Writing, Speaking and Listening Standards

Reading strategies underlie many parts of the **enVision**math**2.0** grades K–5 lessons. Not only is vocabulary featured during lessons that include reinforcement questions, reading is emphasized through a whole page of Vocabulary Review in each topic in the Student's Edition, with a game in the online Game Center, and with the animated glossary available online. This spotlight on vocabulary means that students both understand and can use mathematical vocabulary in their writing.

Vocabulary Review at the end of each topic includes questions to reinforce understanding of the Topic's vocabulary and asks students to use vocabulary in writing. Vocabulary in the Visual Learning Bridge and Visual Learning Animation Plus is explicitly emphasized. New words introduced in a lesson are highlighted in yellow in the Visual Learning Bridge and in the Visual Learning Animation Plus. Lesson practice includes questions to reinforce understanding of vocabulary used in the topic. Students are often asked to do writing in math in lesson practice to explain their thinking.

Additional reading strategies are addressed in each topic for grades K–2 begins with an interactive math story. It is available as an online story book, as an animated story, and as a color-in take-home story in the Teacher's Resource Masters. All students in grades K–5 will interact with the Problem-Solving Reading Mat and Activity using **enVision**math**2.0**. These big, colorful mats filled with data are provided for each topic in the Quick-and-Easy Centers Kit for Differentiated Instruction. Students and teachers work together reading the text on the mats in order to prepare and complete the math-related activity pages.

Reading skills and strategies are further supported through the Math Practices inherent in every part of **enVision**math**2.0**, including one lesson per topic in grades K–5 where a specific Math Practice is highlighted. In incorporating these skills, students are expected to clarify their thinking and put their understanding of various concepts into writing. They must present evidence and a persuasive statement detailing their process.

Evidence

Student's Edition—Beginning of Topic Review What You Know; any Lesson; any Math Practices Lesson.



II. Materials: (Please apply a score to each section A-E):				
A. Foundational Skills				
Coherence: New content is based on previous understandings and provides opportunities to connect know learning progressions	/ledge and ski	lls across stand	dard clusters,	domains and
Rating	3	2	1	0
Evidence				

Evidence:

Coherence: New content is based on previous understandings and provides opportunities to connect knowledge and skills across standard clusters, domains and learning progressions

enVisionmath2.0 reflects evidence of key shifts that are reflected in the CCSSM. Coherence is found across through careful learning progressions. Coherence is supported by common elements such as Thinking Habits questions for math practices and bar diagrams for representing quantities in a problem. Coherence is cultivated across topics, clusters, and domains within a grade by developing the mathematics as a body of interconnected concepts and skills. Coherence across lessons and standards is achieved when new content is taught as an extension of prior learning-developmentally and mathematically. For example, Solve and Share at the start of every lesson engages students in a problem-based learning experience that connects prior knowledge to new ideas.





enVisionmath2.0 Lessons Connect for Coherence. Each lesson relates on-grade level concepts explicitly to prior knowledge from earlier grades.

Coherence Across Grades

- Look Back Connections to content taught in previous grades are highlighted in the Coherence part of Cluster Overview pages in the Teacher's Edition.
- Look Ahead Connections to content in the next grade are also highlighted in the Coherence part of Cluster Overview pages in the Teacher's Edition.

Coherence Across Topics, Clusters, and Domains

- Supporting Clusters Topics that focus on supporting clusters provide support for topics that focus on major clusters. The Teacher's Edition
 identifies that support in the Coherence part of the Cluster Overview pages.
- Connections Across Topics, Clusters, and Domains The Teacher's Edition notes for lessons point out opportunities to highlight connections across topics, clusters, and domains.



II. Materials: (Please apply a score to each section A-E):

A. Foundational Skills

Coherence Across Lessons and Standards

- Connections to Prior Knowledge in Problem-Based Learning. The Solve and Share in every lesson supports coherence. It engages learners by connecting prior knowledge to new ideas through a problem-solving experience.
- Connections Across Lessons in a Topic The Lesson Overview in the Teacher's Edition for each lesson describes connections between lessons in the topic and some connections to other topics.

Evidence

- Teacher's Edition Program Overview pp. 30–31, 63
- Teacher's Edition—Please review any Cluster Overview page reference in the Teacher's Edition Table of Contents for each Topic. For example, Math Background: Coherence page 1C.
- Teacher's Edition—Please see the first page of any lesson in the Teacher's Edition and other notes labeled "Coherence" within the lesson.

B. Text Complexity

- Focus: Lessons and units are grade appropriate with evidence of varying depths of knowledge required
- Lesson objectives and expectations are clearly detailed
- Examples are clear and concise with detailed steps and visuals that build from concrete to representational to abstract development of concepts
- Real-world applications require students to draw from prior knowledge as well as new knowledge
- Connections to college and career readiness are integrated throughout materials
- Rigor: Requires students to engage with and demonstrate challenging mathematics with appropriate balance among problem solving in application, conceptual
 understanding, and procedural skills and fluency
 - <u>Application</u>: Provides ongoing opportunities for students to independently apply mathematical concepts in real-world situations, solve challenging problems, and choose and apply appropriate strategies to new situations
 - <u>Conceptual Understanding</u>: Develops students' depth of understanding through tasks, brief problems, questions, multiple representations and opportunities for them to write and speak about their understanding
 - Procedural Skill and Fluency: Provides guidelines for performing quick and accurate procedural skills, fluency and mathematical procedures

	Rating	3	2	1	0
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Evidence:

Focus: Lessons and units are grade appropriate with evidence of varying depths of knowledge required

Within a topic, the Topic Essential Question identifies a focus for the whole topic, and Essential Understandings are often the focus for groups of related lessons. These Essential Questions and Understanding relate directly to the PA Common Core Standards. Highly effective teachers focus students' attention on, and make explicit, the important ideas students need to understand in a lesson. Many elements of the lessons are resources that teachers can use to achieve this focus.

Focus Within a Grade

Focus on CCSS Clusters. One or more Topics in enVisionmath2.0 focus on each CCSS cluster.

Focus Within a Topic

- **The Focus of a Topic.** At the start of a Topic, one or more Essential Questions help students focus on key ideas in the Topic.
- The Focus of a Group of Lessons. An Essential Understanding is stated in the Teacher's Edition for each lesson. Often the same Essential Understanding is given for a group of consecutive lessons. As students focus on an Essential Understanding over multiple days, they develop deeper conceptual understanding.

Focus Within a Lesson

The Focus of a Lesson. Some of the elements of a lesson that help teachers focus students' attention on important lesson ideas include the Lesson Essential Question, the Visual Learning Bridge and its digital counterpart, the Visual Learning Animation Plus, as well as Do You Understand? Show Me! (grades K–2) or Convince Me! (grades 3–5). The pedagogy of enVisionmath2.0 is particularly effective because it offers students opportunities to demonstrate varying depths of knowledge. The program has a core instructional model that facilitates conceptual understanding through explicit instruction, student-led inquiry, and application and extension opportunities.

Evidence

- Teacher's Edition Program Overview pp. 28–29, 62.
- Teacher's Edition—Please review any Cluster Overview page reference in the Teacher's Edition Table of Contents for each Topic. For example, Math Background: Focus page 1A.



• Teacher's Edition—Please see the first page of any lesson in the Teacher's Edition and other notes labeled "Focus" within the lesson.

Lesson objectives and expectations are clearly detailed

Lesson objectives are clearly labeled in both the Student's Edition and the Teacher's Edition through "I can" statements and the corresponding Mathematical Practices and Content Standards on the first page of each lesson. Additionally, problems throughout the lesson are labeled with specific Mathematical Practices to help clarify expectations for students. Teacher support for each lesson begins with objectives and expectations explained in the Teacher's Edition Program Overview with mathematical background on the Standards, how and why they are important in the program.

Listen and Look For Videos for every lesson provide teachers with a quick, but detailed look at what student understanding of the Standard looks and sounds like in every lesson. Professional Development Videos for each topic present additional information about the content.

Examples are clear and concise with detailed steps and visuals that build from concrete to representational to abstract development of concepts

Step 2—Direct Instruction (Visual Learning) is a core instructional part of every **enVision**math**2.0** lesson. Visual Learning increases the cognitive level of instruction by connecting concrete and pictorial representations to abstract symbols. Students have access to the Visual Learning Bridge and Visual Learning Animation Plus which helps solidify student's conceptual understanding of the new math problem. The questions provided in the Teacher Edition have students reflect on the work that is shown, make connections among ideas, and justify the steps. The Do You Understand? Show Me! (grades K–2) and Convince Me! (grades 3–5) feature in each lesson supports students to use the Standards for Math Practices in order to explain their thinking and justify their reasoning.

Evidence

• Student's and Teacher's Edition—Any Lesson.

Real-world applications require students to draw from prior knowledge as well as new knowledge

enVisionmath2.0 provides online components to support all parts of the lesson and focus students during classroom conversation.

Each Topic introduces a math and science project with a science theme. Students in grades K-5 will engage in research and write a report. This theme is revisited in the Math and Science Activities and in some lesson exercises. Students will work on the Math and Science Project



over several days. An Extension is also provided in addition to Sample Student Work. Two lessons in a topic include a Math and Science Activity page that relates to the topic's science theme that's introduced in the Topic Opener.

Today's Challenge online for grades K–5 presents a science factoid at the start of many sets of problems and science data are used in many problems.

Evidence

• Student's and Teacher's Edition—Topic Opener; Any Lesson Opener.

Connections to college and career readiness are integrated throughout materials

enVisionmath2.0 was built to fully implement the vision of the standards and address the knowledge and skills students need to be prepared for mathematics in college, career, and life. Mathematical understanding and procedural skill are equally important, and both are assessable using mathematical tasks of sufficient richness.

For example every lesson in **enVision**math**2.0** introduces concepts and procedures with a problem-solving experience. Research shows that conceptual understanding is developed when new mathematics is introduced in the context of solving a real problem in which ideas related to the new content are embedded (Kapur, 2010; Lester and Charles, 2003; Scott, 2014). Conceptual understanding results because the process of solving a problem that involves a new concept or procedure requires students to make connections of prior knowledge to the new concept or procedure. The process of making connections between ideas builds understanding. In **enVision**math**2.0** this problem-solving experience is called Solve and Share and begins every lesson in the program.

Rigor: Requires students to engage with and demonstrate challenging mathematics with appropriate balance among problem solving in application, conceptual understanding, and procedural skills and fluency

enVisionmath2.0 has a core instructional model that facilitates conceptual understanding. To begin, concepts emerge as students solve a problem in which new concepts are embedded (problem-based learning). Then, those concepts are made explicit through direct instruction (visual learning) that is supported by high-level, question-driven classroom conversations. Procedural skills are taught with understanding using concrete and pictorial representations, place-value concepts, and properties. Resources are provided to help all students achieve fluency. Applications include rich, cognitively demanding tasks and a variety of problem situations, as well as infused instruction and reinforcement of the Standards for Mathematical Practice.



Evidence

- Teacher's Edition Program Overview pp. 32–33.
- Teacher's Edition—Please review any Cluster Overview page reference in the Teacher's Edition Table of Contents for each Topic. For example, Math Background: Rigor page 1E.
- Teacher's Edition—Please see the first page of any lesson in the Teacher's Edition and other notes labeled "Rigor" within the lesson.

<u>Application</u>: Provides ongoing opportunities for students to independently apply mathematical concepts in real-world situations, solve challenging problems, and choose and apply appropriate strategies to new situations

Rich, real-world problems are provided throughout the lessons, including the Math Practices and Problem Solving lessons which focus on developing the kind of thinking needed to be a good problem solver.



Lessons include a variety of problem situations involving operations. Bar diagrams are included to help students understand and represent the relationship between quantities in a problem, as well as decide what operation to use to solve the problem.





Evidence

Teacher's Edition Program Overview pp. 56–57, 58–61.

<u>Conceptual Understanding</u>: Develops students' depth of understanding through tasks, brief problems, questions, multiple representations and opportunities for them to write and speak about their understanding

Step 1—Problem-Based Learning. The activity for each lesson—called Solve and Share (grades K–5) is designed to engage students with a problem in which new math ideas are embedded. Coherence is facilitated as students connect prior knowledge to the new math ideas. Students solve the problem in any way they choose and are given time to struggle. As students think, conceptual understandings emerge. Solve and Share supports the use of concrete manipulatives and online uses the DrawPad to have students write and share their solutions on screen.







B. Text Complexity 00 How Can You Represent a Fraction in a Variety of Ways? Go back Add and Subtract Fractions with Like Denominators: Visual Learning ts to leave | of her garden empty. Charlene wants to leave $\frac{1}{6}$ of her garden empty What are some different ways Charlene can pluthe rest of her garden? e 000 as means to Move the slider to show the distance from Mary's house to the soccer field. track into parts. Campois means to combine parts. The fraction of the garden that Charlene will plant can be decomposed in Mary's Marcy's ore than one Soccer field One Way Another Way 2 mile 5 mile - 14 Charlene could plant four & sections with blue flowers and one & section with Charlene could plant one $\frac{1}{2}$ section with green beans, one $\frac{1}{2}$ section with yellow squash, one $\frac{1}{2}$ section with red peppers, and red peppers. Number line two a sections with blue flowers. 211 gand] Eisland land land? . . . 2 9 2-2+2 2-2+2+2-2 Convince Met @ MP.5 Use Appropriate Tools Draw pictures or use fraction strips to show why these equations are true. 2-2-2 2-2+2+2 • 472 Taple 9 Lesson 9-2

Evidence

• Teacher's Edition Program Overview pp. 44–45, 46–47.

<u>Procedural Skill and Fluency</u>: Provides guidelines for performing quick and accurate procedural skills, fluency and mathematical procedures

Students perform better on procedural skills when the procedures make sense to them. So, procedural skills are developed with conceptual understanding through careful learning progressions.

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B. Text Complexity PEARSON Settings | Help | Sign Out All Browse My Searches Search. Student View 10 10 mme Write the addition equation. Use a number line to show $\frac{2}{10} + \frac{5}{10}$. Add the numerators. Write the Draw a number line for tenths. Locate $\frac{2}{10}$ on the sum over the like denominator. number line. $\frac{2}{10} + \frac{5}{10} = \frac{2+5}{10} = \frac{7}{10}$ To add, move $\frac{5}{10}$ to the right. >> The distance from When you add, you move to the right on the Mary's house to the number line. soccer field is 7 mile 😆 🗈 🥾 🗢 🗲 📩 🌩 🖘 🖉 🖻 & & & 🗪 Online Math Practice. Learning progressions in enVisionmath2.0 help students develop procedural skills. A wealth of resources is provided to confirm all students achieve fluency on the PA Common Core Standards at each grade.







C. Quality Questioning

- Develops students' depth of knowledge through the presentation of complex problems and questions
- Misconceptions are identified and accompanied by strategies to address them
- Engages students in productive struggle through relevant, thought-provoking questions, problems and tasks that stimulate interest and elicit mathematical thinking

Rating	3	2	1	0

Evidence:

Develops students' depth of knowledge through the presentation of complex problems and questions

In order to provide the rigor required by the standards and reflected in the Next Generation assessments, rich classroom conversations that promote deep understanding are required.

enVisionmath2.0 has a core instructional model that facilitates conceptual understanding. Through problem-based learning, concepts emerge as students solve a problem in which new concepts are embedded.

Classroom discourse refers to the interactions that take occur throughout a lesson. The goal of that discourse is to keep the cognitive demand high while students are learning and formalizing math concepts. The questions that teachers ask students can really make the difference in how well they internalize the math concepts being developed. **enVision**math**2.0** provides the questions teachers need in order to teach through problem solving and orchestrate rich classroom conversations that challenge student thinking in every lesson.

In order to assist teachers in planning for higher level questioning strategies, **enVision**math**2.0** provides suggested questions specific to each Solve and Share. Step 1 of the lesson features a Solve and Share problem that helps students connect what they know to new ideas embedded in the problem. When students make these connections, conceptual understanding emerges.

Since the student books are write-in texts at all grades K–5, students explain their reasoning and communicating their understanding right in the student book during Solve and Share. The activity is also available online as an interactive student activity through Pearson Realize as a part of the interactive workspace offered in print and in digital formats of the student learning experience.





Solve and Share. Solve and Share activities in print and online encourage mathematical reasoning and discourse. Students can use the Solve and Share activity through any mobile device.

Step 2 of each lesson is the Visual Learning Bridge. It provides a stepped-out visual example of the lesson concept for every lesson and makes the math ideas from the problem based learning more explicit and real for our learners.

Open the door for students to interact with the example through the Visual Learning Animation Plus. This allows for a rich exchange about the content between teachers and students. Teachers can pause and discuss; incorporate animated tools; as students further develop deep understanding that is necessary in order to be able to solve rigorous problems.

Evidence

Student's and Teacher's Edition—Any Lesson.



C. Quality Questioning

Misconceptions are identified and accompanied by strategies to address them

enVisionmath2.0 provides strategies to assist teachers in identifying common errors and misconceptions:

- Step 2 Develop: Visual Learning includes the Visual Learning Bridge. Prevent Misconceptions (grades 1–5) is included in the Teacher's Edition guiding questions that support the Visual Learning Bridge.
- Error Intervention is provided in an "If/Then" format in the Teacher's Edition to support Guided Practice (Do You Understand? Do You Know How?) Re-teaching is provided for follow-up prior to students engaging in Independent Practice.

Evidence

Student's and Teacher's Edition—Any Lesson.

Engages students in productive struggle through relevant, thought-provoking questions, problems and tasks that stimulate interest and elicit mathematical thinking

Problem-Based Learning Solve & Share in the Student Edition and online introduces each lesson by engaging students with a problem in which new math ideas are embedded. Coherence is facilitated as students connect their prior knowledge to the new math ideas. Students solve the problem any way they choose. Students engage in productive struggle; as they think, conceptual understandings emerge.

Teachers' role in facilitating Problem-Based Learning includes the following tasks:

- Students know they are expected to do the thinking.
- Students share their thinking with a partner, small group, or the whole class.
- Students' thinking is valued even when they struggle.
- The language of math practices is used during discussion.

Evidence

Student's and Teacher's Edition—Any Lesson.

D. Writing

- Provides opportunities to write about mathematical understanding and applications
- Allows for written defense of mathematical concepts drawn by students

Rating

Evidence:

Provides opportunities to write about mathematical understanding and applications

Independent Practice, Math Practices, and Problem Solving features in every lesson build proficiency as students work on their own; have opportunities to write about what they know; explain their thinking, and apply understanding in solving problems.

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Evidence

Student's and Teacher's Edition—Any Lesson.



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D. Writing

Allows for written defense of mathematical concepts drawn by students

The Visual Learning connects to the Do You Understand? Show Me! (grades K–2) and Convince Me! (grades 3–5) questions. Students again use the Standards for Math Practices in order to explain their thinking and justify their reasoning. This is another feature in the student workspace that is offered both in the print Student's Edition and online as an interactive experience.



Convince Me. During this activity, students explain their thinking and justify their reasoning.

Evidence

Student's and Teacher's Edition—Any Lesson.

E. Speaking and Listening

- Provides opportunities for students to discuss mathematical thought processes
- Allows for the presentation of mathematical concepts and conclusions
- Strategies for communicating the language of mathematics are routinely presented and discussed



E. Speaking and Listening

Rating

Evidence:

Provides opportunities for students to discuss mathematical thought processes

Throughout **enVision**math**2.0**, the eight math practices are infused in lessons. Each Math Practices and Problem Solving lesson gives special focus to one of the eight math practices. Features of these lessons include the following.

- Solve and Share. The problem posed can be analyzed and solved by engaging the math practice featured in the lesson. The Thinking Habits in the cloud provide questions that help guide students' thinking in a way that supports the math practice. In Look Back (Grades 3–6), students use the math practice featured in the lesson to interpret their solution or analyze another aspect of the problem.
- Visual Learning Bridge. Students are provided a stepped-out example to model the kind of thinking that helps students engage the math practice. The "I can" thinking highlights specific features of the math practice.
- Do You Understand? Show Me! (grades K–2); Convince Me! (grades 3–6). Students show how they can engage the same math practice to solve a problem related to the one in the Visual Learning Bridge. You can use this feature to check for students' understanding of the math practice.
- **Guided Practice.** Students solve a problem by enlisting the math practice featured in the lesson.
- Independent Practice. Students do work on their own to engage the math practice.
- **Common Core Performance Assessment.** Students engage multiple math practices to solve a problem like ones they will encounter in performance assessments.
- Homework and Practice. Another Look! provides another example that models the kind of thinking for the math practice. Students do work involving the math practice. Then they again engage multiple math practices to solve a problem like ones they will encounter in Common Core performance assessments.

Evidence

Teacher's Edition Program Overview—pp. 56-57.

Allows for the presentation of mathematical concepts and conclusions

Daily problem-based learning Solve and Share activities include sample student work.



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E. Speaking and Listening

Teachers can easily project these on the whiteboard and engage students as they analyze and justify the student work. This focuses students' attention and supports teachers as they facilitate rich, classroom discussions. Not only are students recording their thinking in their student books, but they are focused during the classroom conversation as teachers use the online Solve and Share on the interactive whiteboard.

Evidence

Student's and Teacher's Edition—Any Lesson.

Strategies for communicating the language of mathematics are routinely presented and discussed

The Solve and Share is a unique part of every lesson at every grade level that deepens student understanding of concepts through real-world problems. Teachers are provided with Before, During, and After questions and guidance that help make the most of the problem-based learning in every lesson at all grade levels. This guidance supports teachers in building year-long classroom conversation through suggestions and examples of student work, and this guidance continues throughout the lesson. Additionally, the Listen and Look For videos for every lesson highlight an element of the lesson explaining its relevance and what student understanding of the concept will sound like and look like in student work. This provides teachers with an understanding of the lesson prior to working with students that builds confidence with content.

Also available from Pearson, *Language Central for Math* supports English language learners with academic vocabulary necessary to master math. Oftentimes it's the math vocabulary, not the mathematical concepts, that hinders student mastery. *Language Central for Math* is designed to directly address this issue and reinforce the core instruction given in the math classroom.

Author Dr. Jim Cummins and the team of ELL instructors from Fitchburg Public Schools created Language Central for Math around the Five Principles for Teaching English

Language Learners. These principles support the needs of ELLs throughout the text:

- 1. Explicitly states content and language objectives in each lesson/module.
- 2. Lesson opener activities connect to and assess prior knowledge.
- 3. Hands-on activities utilize multiple modes of instruction: visual, verbal, aural, kinesthetic.
- 4. Group work enables practice with all language domains: listening, speaking, reading, and writing.
- 5. Students express understanding through language production and reflect on effective learning.



E. Speaking and Listening

As a result, *Language Central for Math* provides students with lessons that focus on language development presented in multiple learning styles—hands-on, visual, and verbal.

III. Differentiation of instruction offers opportunities for all to participate:

- Text features accommodate students who may have difficulty reading
- Vocabulary is presented to address multiple learning modalities
- Suggestions for planning, preparation and delivery of instruction for students from diverse backgrounds are provided in teaching resources
- Allows for scaffolding (such as supports for use of manipulatives and graphic organizers)
- Resources and suggestions for students receiving specialized services (including mentally gifted are grade appropriate.
- Resources and suggestions for ELL students are grade appropriate

Rating	3	2	1	0

Evidence:

Text features accommodate students who may have difficulty reading

Students are actively engaged, working independently, in pairs, and in small groups throughout the daily lesson. Age-appropriate avatars and engaging robots encourage students and provide help along the way.

Teachers are encouraged to set expectations to be sure students know they are to do the thinking; foster communication by having students share their thinking with a partner, small group, or the whole class; encourage students by valuing each student's thinking even when they struggle; and use the language of the Mathematical Practices during discussions.

During the daily lesson, students are encouraged to share their thinking and provide multiple solution strategies to solving problems in Solve and Share. Rich classroom conversations support active participation of students in order to make meaningful mathematical connections and develop understanding during Visual Learning.

The Quick and Easy Centers Kit for Differentiated Instruction holds all the resources for the enVisionCENTERS, making classroom management efficient. These centers include activities that correspond with Problem Solving Reading Mats, Digital Math Tools, and Games. The centers also lead students through center games using manipulatives, as well as math and science activities.





Quick and Easy Centers Kit for Differentiated Instruction. enVisionCENTERS are organized for easy student access in grades K-5.

Similarly, Realize Centers online offer differentiated learning stations. Each station is identified by a unique image easily recognized by students, such as a fox, rabbit, or bear in an outdoor scene. Each image represents a lesson differentiation resource. Teachers can also easily assign pre-built, digital resources to devices for individuals or small groups.

Evidence

• Student's and Teacher's Edition—Any Lesson.

Office of Curriculum, Instruction and Assessment, Christopher Shaffer, Deputy Chief



Vocabulary is presented to address multiple learning modalities

Vocabulary is presented in enVisionmath2.0 in the following ways:

- Vocabulary Cards and Activities at the Start of Topics
 - **My Word Cards in the Student's Edition.** Write-on vocabulary cards are provided on pages right in the Student's Edition. Students use information on the front of the card to complete the back of the card. Additional activities are suggested on the back of the sheet of cards.
 - Vocabulary Activities. The start of each topic in the Teacher's Edition provides vocabulary activities for vocabulary words in the topic and/or for the vocabulary words in Review What You Know. Some of the activities use graphic organizers in the Teacher's Resource Masters.
- Vocabulary in Lessons
 - **Vocabulary in the Visual Learning Bridge.** New words introduced in a lesson are highlighted in yellow in the Visual Learning Bridge (Grades 1–5).
 - Vocabulary and Writing in Lesson Practice. Lesson practice includes questions to reinforce understanding of vocabulary used in the topic. And students are often asked to do writing in math in lesson practice to explain their thinking.
 - Glossary in the Student's Edition. A glossary at the back of the Student's Edition can be used for reference at any time.
- Vocabulary Review at the End of Topics
 - Vocabulary Review with Writing. At the back of each topic in the Student's Edition is a page of Vocabulary Review. It includes questions to reinforce understanding of the vocabulary used in the topic and asks students to use vocabulary in writing. Additional activities in the Teacher's Edition reinforce oral language and writing in math.
 - **Animated Glossary.** An animated glossary that includes sound and motion is always available to students and teachers at PearsonRealize.com or through the eTexts.
 - Vocabulary Game Online. The Game Center at PearsonRealize.com includes a vocabulary game that students can access anytime.

Math and reading are incorporated in the following ways:

Problem-Solving Reading Mat and Activity. A big, colorful mat filled with data is provided for each topic in the Quick-and-Easy Centers Kit for Differentiated Instruction. A Problem-Solving Reading Activity master is provided for 2 lessons in a topic. The activity has problems that use the same context as the mat. The Problem-Solving Reading Activity Guide provides additional suggestions for using the mat.



Interactive Math Stories, Grades K–2. Each topic begins with an interactive math story. It is available as an online story, as an animated story, and as a color-in, take-home story in the Teacher's Resource Masters.

Evidence

Student's and Teacher's Edition—Any Topic Opener/Ending and Lesson.

Suggestions for planning, preparation and delivery of instruction for students from diverse backgrounds are provided in teaching resources

All levels of learners are included in every part of **enVision**math**2.0** lessons. The Solve and Share brings students together through problem-based learning and classroom conversation that includes multiple levels of learners seamlessly. Because there is no required path to an answer, struggling students and advanced students have an equal opportunity to find a solution that makes sense to them.

The subsequent classroom discussion of the various solutions provides opportunities for students to see and hear other ideas that may deepen their understanding of the concept. Extension allows for additional challenge for advanced students. ELL guidance for every lesson can be utilized in any part of the lesson.

Visual Learning Animation Plus and the Visual Learning Bridge provide alternate ways for students to understand the lesson concepts, while additional resources available online offer support for all types and levels of learners.

enVisionmath2.0 meets a variety of student needs and provides Response to Intervention during each lesson, at the end of each lesson at the end o

- Ongoing Intervention, during the lesson
 - **Prevent Misconceptions** during the *Visual Learning Bridge* includes a remediation strategy to address a common misconception about the lesson concept.
 - Error Intervention (If... Then...) during *Guided Practice* identifies a common error and provides remediation strategy.
 - **Reteaching Set** is provided before Independent Practice to provide understanding prior to practice.
 - Learning Aids Online

- **Grades 3–5**—Practice Buddy during the lesson includes personalized practice for Independent Practice, Math Practices and Problem Solving for every lesson. Practice Buddy is auto-scored with on-screen help, including Help Me Solve This and View an Example tools, tutorial videos, Math Tools, and one-click animated glossary access.
- **Higher Order Thinking** problems in lesson practice challenge student thinking.
- Strategic Intervention, at the end of the lesson
 - Intervention Activity supports teachers working with small groups of struggling students.
 - **Reteach to Build Understanding** provides guided re-teaching as a follow-up to the *Intervention Activity*.
 - **Center Games** include seven different types of games for grades K–6 with on-level and advanced versions of each game board. *Partner Talk* has students share their thinking.
 - Math and Science Activity for on-level and advanced learners relates to the topic's science theme.
 - **Problem-Solving Reading Activity** includes a beautiful, data-filled mat for each topic and a *Problem-Solving Reading Activity* with a lesson-specific page and problems to solve using the data on the mat. This feature also includes an *Activity Guide* with other suggestions for using the mat.
 - Digital Math Tools Activities reinforce lesson content or previously taught content.
 - **Online Math Games** reinforce lesson content or previously taught content and include thinking games rather than just drill games. Students learn concepts through the games.
 - **Leveled Homework and Practice** offers two pages of homework and practice in the Student's Edition at the end of every lesson. Items focus on skills (often with scaffolding) and on problem solving that includes reinforcement of math practices, vocabulary, *Higher Order Thinking*, and *Common Core Assessment*.
 - Another Look Videos provide examples to remind students and parents about important ideas in the lesson.
 - Leveled assignments in the Teacher's Edition are provided for Intervention, On-level, and Advanced students.
 - Learning Aids Online
 - **Practice Buddy Grades 3–5**—Practice Buddy includes personalized practice for Homework and Practice for every lesson. Practice Buddy is auto-scored with on-screen help, including Help Me Solve This and View an Example tools, tutorial videos, Math Tools, and one-click animated glossary access.



• Adaptive Homework and Practice Powered by Knewton—Delivers just-right math content to each student. Each student's Homework & Practice powered by Knewton assignment is created to fit his/her learning needs. This will include on-level work, as well as instruction and practice of prerequisite skills where the student demonstrated extra help would be beneficial. Each morning, teachers will see how students have progressed in mastering the previous day's lesson and the related prerequisite skills. With enVisionmath2.0 Homework & Practice powered by Knewton, fewer students will require intensive intervention the following day and teachers have gained more time to spend with them.

The Math Diagnosis and Intervention System 2.0 (MDIS) helps teachers diagnose students' needs and provide effective intervention that is on or below grade level.

The MDIS offers the following resources:

- **Diagnosis.** Teachers can use the diagnostic tests in the system as well as the item analysis charts given with program assessments at the start of a grade or topic, or at the end of a topic, group of topics, or the year.
- Intervention Lessons. These two-page lessons include guided instruction followed by practice. Teachers can assign lessons that are below grade level if needed.
- **Teacher Support.** Teacher Notes provide the support needed to conduct a short lesson. The lesson focuses on vocabulary, concept development, and practice. The Teacher's Guide contains individual and class record forms and correlations to Student Edition lessons.

Evidence

• Teacher's Edition Program Overview—pp. 74–75.

Allows for scaffolding (such as supports for use of manipulatives and graphic organizers)

Physical manipulatives are used throughout the program to explore mathematical concepts, develop conceptual understanding, and to make connections. Please refer to the "Preparing for a Topic Math Background" in the Teacher's Edition for detailed support of how manipulatives are used.

The start of each topic in the Teacher's Edition provides vocabulary activities for vocabulary words in the topic and/or for the vocabulary words in Review What You Know. Some of the activities use graphic organizers in the Teacher's Resource Masters.

Solve and Share and scaffolded teaching actions in the Teacher Edition are given for before, during, and after this problem-based learning.

Before: Use Teaching Actions #1 and #2 to start understanding. This is whole-class discussion.

- During: When students are stumped, use #3. Students should be working together as you facilitate.
- After: This is another whole-class discussion. Use #4 and #5 to discuss students' thinking and work, and to make math ideas explicit. Use #6 as needed.

In the **enVision**math**2.0** program, daily formative assessments occur after instruction and before practice, with student-specific differentiated intervention provided. As follow-up, students have an opportunity to work through the math concept with scaffolded support built right into the Reteach to Build Understanding lesson.

Practice and Problem Solving Exercises build proficiency as students work on their own. In some lessons, leveled practice with scaffolding is included.

Every lesson offers a detailed Intervention Activity with full teacher support and student work shown. The accompanying Reteach to Build Understanding worksheet provides guided re-teaching as a follow-up to the Intervention Activity.





Evidence

Teacher's Edition Program Overview—pp. 74–75.

Resources and suggestions for students receiving specialized services (including mentally gifted are grade appropriate; Resources and suggestions for ELL students are grade appropriate

Pearson supports and complies with the Individuals with Disabilities Act of 2004 and the terms and conditions of the National Instructional Materials Access Center (NIMAC). In accordance with IDEA 2004, Pearson will upload any K–12 textbook or core related student print material published after 19 July 2006 to the NIMAC. Please note that Pearson routinely uploads most eligible materials to the NIMAC at the time of the first classroom-ready printing, often before receiving a request.

Online accessible Student's Edition provides text enlargements and speech-to-text functionality is supported through Kurzweil and other popular screen and text readers. All program interactivities and assessments include text-to-speech feature. Print is available from NIMAC for special needs. All student videos include both text on screen and matching audio.

enVisionmath2.0 meets a variety of student needs and provides Response to Intervention during each lesson, at the end of each lesson, at the end of each Topic, and anytime as indicated. Opportunities to challenge high-achieving students are also varied and meaningful. Many of these resources support developing and strengthening reading, writing, speaking, and listening skills.

Each lesson in the Teacher's Edition provides instructional support for English language learners (ELL). Renowned ELL consultants Janice Corona and Jim Cummins developed these features. A separate ELL Toolkit book provides additional support for ELLs across grades K–5.

SDP teachers can use the ELL support with a specific part of the lesson, such as Solve and Share, Visual Learning Bridge, or Do You Understand? Leveled instruction includes suggestions for students at Beginning, Intermediate, and Advanced levels of English language proficiency.

ENGLISH LANGUAGE LEARNERS

Reading Use visual and contextual support.

Use before the Visual Learning Bridge on Student's Edition p. 496.

Draw a number line for fourths. Label 0, $\frac{1}{4}$, $\frac{2}{4}$, $\frac{3}{4}$, and 1. Have students read the fractions. Discuss how the fractions decrease in value to the left and increase in value to the right. Relate this to whole numbers on the number line.

Beginning Draw a number line for sixths. Label with $0, \frac{1}{6}, \frac{2}{6}, \frac{3}{6}, \frac{4}{6}, \frac{5}{6}$, and 1. Ask students to take turns pointing to the tick marks and reading the fraction labels. **Intermediate** Draw a number line for sixths. Label the tick marks for 0, $\frac{1}{6}$, and 1. Ask students to take turns filling in the missing fractions and reading them aloud. Do the fractions increase or decrease as you move to the right on the number line?

Advanced Draw a number line for sixths. Label the tick marks for 0, $\frac{1}{6}$, and 1. Ask students to take turns filling in the missing fractions and reading them aloud. Ask students to discuss the relationship between the values on the number line. Do the fractions increase or decrease as you move to the right on the number line? What fraction is two equal segments to the right of $\frac{2}{3}$?

Summarize How can reading a number line help you solve math problems?

Support for ELL Students. Each daily lesson provides support for three levels of English language proficiency among students.

In addition, **enVision**math**2.0** provides strong support through visual learning. Visual Learning Animation Plus provides motion and sound to help lower language barriers to learning. Questions that are read aloud also appear on screen to help English language learners connect oral and written language.

The Visual Learning Bridge often provides visual models to help give meaning to math language. Instruction is stepped out to visually organize important ideas. Teachers may want to use the Student's Edition eText to display the Visual Learning Bridge after using the Visual Learning Animation Plus.

Pictures that appear in lesson practice provide comprehensible input and help communicate information related to math concepts or to realworld problems.

ELL Toolkit. Contains professional development articles with ideas for supporting English Language Learners as well as blackline masters of graphic organizers.

Also available from Pearson, *Language Central for Math* supports English language learners with academic vocabulary necessary to master math. Oftentimes it's the math vocabulary, not the mathematical concepts, that hinders student mastery. *Language Central for Math* is designed to directly address this issue and reinforce the core instruction given in the math classroom.

Author Dr. Jim Cummins and the team of ELL instructors from Fitchburg Public Schools created *Language Central for Math* around the Five Principles for Teaching English Language Learners. These principles support the needs of ELLs throughout the text:

1. Explicitly states content and language objectives in each lesson/module.

- 2. Lesson opener activities connect to and assess prior knowledge.
- 3. Hands-on activities utilize multiple modes of instruction: visual, verbal, aural, kinesthetic.
- 4. Group work enables practice with all language domains: listening, speaking, reading, and writing.
- 5. Students express understanding through language production and reflect on effective learning.

As a result, *Language Central for Math* provides students with lessons that focus on language development presented in multiple learning styles—hands-on, visual, and verbal.

Evidence

- Student's and Teacher's Edition—Any Topic Opener/Ending and Lesson
- Teacher's Edition Program Overview—pp.76-77

IV. Technology for Instructional Supports:				
 Online access to textbook 				
 Online teaching resources for interactive whiteboard 				
 Online student supports for remediation, practices and enrichment 				
 Grade appropriate supports for the implementation of handheld technology 				
Rating	3	2	1	0
Evidence:				



Online access to textbook

With rich and engaging content, embedded assessment with instant data, and flexible classroom management tools, **Pearson Realize**[™] provides the power to raise interest and achievement for every student. **Realize** is our newest learning management system (LMS). It is the online destination for standards-aligned content, flexible class management tools, and



embedded assessments that deliver data to teachers instantly. **enVision**math**2.0** on **Pearson Realize** provides premium content to help teachers enhance their instructional materials. Teachers can search by keyword, browse by a table of contents, or browse by the Pennsylvania Academic Content Standards. **enVision**math**2.0** on **Pearson Realize** also encourages teachers to customize the content reports and student usage data give you the power to target your teaching to improve student outcomes.

enVisionmath2.0 on Pearson Realize offers the following benefits:

- Standards-Aligned Content. Content includes material aligned to both the Common Core and to the PA Core Standards
- Powerful Search Tools. Search by keyword, skills, topic or standards helps teacher quickly find lessons, lesson plans and instructional resources
- Integrate Open Source. Teachers can search open source education assets using Gooru and integrate the results directly into their lesson
- **Customizable Curriculum.** Teachers can reorder the table of contents, upload files and media, add links, and create custom lessons and assessments
- Flexible Class Management Tools. Teachers can create classes, organize students by groups, and create assignments targeted to those groups, individual students or the entire class.
- Digestible Student Progress Data. Teachers can instantly access student and class data that shows standards mastery on assessments, online activity and overall progress.

Online teaching resources for interactive whiteboard

Digital resources for teachers, which can all be accessed on an interactive whiteboard, include the following:

- eText Teacher's Edition (in English and Spanish; Spanish has English notes with Spanish Student Edition pages). This provides the entire contents of the print Teacher's Edition and Resource Masters. It can also be downloaded for offline use on a tablet.
- PearsonRealize.com. This site offers flexibility in planning, teaching, learning, discussing, and progress monitoring. To save teachers valuable time, it is easy to navigate, assign resources, search, customize, plan, assess, and analyze data.



- Online Assessments. Auto-scored online assessments keep students on track for understanding of math concepts and skills and help them gain experience using next generation assessment technologies. These include the following:
 - o Placement text
 - Quick Check
 - Topic Assessment
 - Cumulative/Benchmark Assessment
 - End-of-Year Assessment
 - ¾-Year Practice Performance Tasks
 - Next Generation Assessment Practice Test (in English only)
- Daily Common Core Review Editable Files (in English and Spanish). These are also available in Resource Masters, and the online version is editable and provides ongoing review in free response and selected response format.
- Topic Overview Professional Development Videos. These videos feature the authors of the program sharing their expertise and information on each topic.
- Listen and Look For Videos. These short professional development videos use examples of student work to prepare teachers for what students' understanding of the Standards in the upcoming lesson will sound and look like.

Online student supports for remediation, practices and enrichment

enVisionmath2.0 offers engaging digital courseware to appeal to 21st century learners. Technology components support all parts of the lesson, and include assessments, student materials, and teacher resources. The digital resources for students include the following:

- eText Student's Edition (in English and Spanish). This contains the entire print Student's Edition online and can be downloaded for offline use on a tablet through the Pearson eText for School app.
- ACTIVe-book, Student Edition (in English and Spanish). This resource provides assignable Student Edition pages with interactivity to allow students to take notes, ask questions, and journal.



- Math Games (in English and Spanish). These online thinking games motivate students and enhance learning. Intelligently interactive, each game challenges students to apply previous math learning and to build more complex concepts. These games include a fluency game for each CCSS fluency standard and a vocabulary game.
- Math Practices Animations (in English and Spanish). enVisionmath2.0 features short videos for each of the eight Mathematical Practices. Videos explain and demonstrate each Mathematical Practice in student-friendly language.
- Another Look Homework Videos (in English and Spanish). These videos provide help for every lesson from an engaging video that presents an example similar to the one in Another Look in the Student Edition. Students can bounce directly to the video from the Another Look problem in every lesson using the free BouncePages app.
- Visual Learning Animations Plus (in English and Spanish). Students interact with this step-by-step representation of the lesson concept, which helps to make the mathematics explicit. They can bounce directly to the video from the Visual Learning Bridge in every lesson using the free BouncePages app.
- Practice Buddy Online (Grades 3–5). Practice Buddy offers auto-scoring with on-screen help and online personalized practice that provides Independent Practice, Math Practices, and Problem Solving as well as Homework and Practice for every lesson. This feature also provides practice and assessment on fluency sub-skills.
- Adaptive Homework & Practice powered by Knewton. Each student's Homework & Practice powered by Knewton assignment is created to fit his/her learning needs. This will include on-level work, as well as instruction and practice of prerequisite skills where the student demonstrated extra help would be beneficial.
- Today's Challenge (in English and Spanish). This feature provides five problems with increasing difficulty using the same data to reinforce the kind of thinking students need for success on next generation assessments.
- Solve and Share (in English and Spanish). Each lesson opens with a rich problem for students to discuss and share solution strategies. Students begin every lesson with the power of problem-based learning and classroom conversation.
- Math Tools and Digital Math Tools Activities. This suite of digital math tools is designed to reinforce lesson content and previously taught content. Students have access to a wide range of interactive digital tools anytime and anywhere. For every lesson, there is a Digital Math Tools Activity (online blackline master) provided or a reference to an Online Math Game.
- Animated Math Glossary (in English and Spanish). This online program glossary for students includes sound and animation.
- PearsonRealize.com Auto-Assigned Differentiation



- **Differentiation After a Lesson** is based on results of online *Quick Checks* (grades K–5). Students are given the Intervention, On-Level, or Advanced assignment for the *Homework and Practice* pages in the Student's Edition.
- **Differentiation After a Topic or Group of Topics** is based on results of online *Topic Assessments* and online *Cumulative/Benchmark Assessments*. Students are assigned remediation or enrichment, which can include the following:
 - Visual Learning Animation Plus
 - Online Math Game
 - Digital Math Tools Activity
 - Reteach to Build Understanding master
 - Center Games masters (grades K–5)
 - Intervention Lesson in the Math Diagnosis and Intervention System 2.0
 - Practice Buddy Online (grades 3–5)
- Assignment Reports show the status of assigned resources.
- Usage Data lets teachers know how much time students are spending in the online resources.
- Today's Challenge Online shows five problems using the same data on five different days. Problems apply prior knowledge and reinforce the kind of thinking students need for success on high-stakes tests. Problems increase in difficulty within a set. *Today's Challenge Teacher's Guide* includes teaching actions organized under Before, During, and After in addition to Vocabulary Review, ELL Support, and Extension.
- Intensive Intervention as needed anytime
 - Math Diagnosis and Intervention System 2.0 Intervention Lesson contains two pages of guided instruction and practice.
 - **Visual Learning Animation Plus** is a step-by-step visual learning animation that is used in each lesson to connect the *Problem-Based Learning Solve and Share* to the *Guided Practice* in a very visual way. This animation can be used anytime to refresh understanding.
 - **Online Math Games** can be used anytime for more reinforcement.
 - Learning Aids Online Practice Buddy Online (grades 3–5) provides personalized practice for every lesson.
 - **ExamView CD** provides unlimited practice exercises for additional practice.



Grade appropriate supports for the implementation of handheld technology

enVisionmath2.0 on Pearson Realize is built in HTML5, which allows students and teachers to access content on desktops and tablets. Student's and Teacher's Edition eText contains the entire print Student's Edition, Teacher's Edition, and Resource Masters online and can be downloaded for offline use on a tablet through the Pearson eText for School app.

Another Look Homework Videos provide help for every lesson from an engaging video that presents an example similar to the one in Another Look in the Student Edition. Students can bounce directly to the video from the Another Look problem in every lesson using the free BouncePages app.

Students interact with **Visual Learning Animations Plus** step-by-step representation of the lesson concept, which helps to make the mathematics explicit. They can bounce directly to the video from the Visual Learning Bridge in every lesson using the free BouncePages app.

V. Assessment:

- Designed to elicit observable evidence where students can independently demonstrate the targeted standard(s)
- Assesses student proficiency using methods that are accessible and unbiased
- Includes aligned rubrics, answer keys and scoring guidelines that provide guidance for interpreting student performance
- Uses curriculum-embedded assessments such as pre-, formative, summative and self-assessment measures
- Requires understanding of appropriate terminology and symbolic representation in order to read, write to explain, and interpret the language of mathematics
- Activities allow for remediation, practice, and enrichment
- Culminating activities/projects require students to research outside of immediate text and rely on prior and new knowledge

Rating 3 2 1	0

Evidence:

Designed to elicit observable evidence where students can independently demonstrate the targeted standard(s)

Assessing students' understanding of the CCSSM translates into measuring student's conceptual understanding, procedural fluency, and ability to apply concepts to solve problems. It also means assessing their proficiency with the Math Practices. A range of item types can be useful in

V. Assessment:

providing reliable data on students' levels of understanding of the standards. These items types include performance tasks and technology enhanced items.

The program offers a comprehensive and balanced assessment system that includes diagnostic, formative, and summative assessments. This comprehensive system helps teachers to monitor student progress throughout each topic and to prescribe appropriate intervention to keep student learning on track. Students have experiences with various types of assessment items in the formal assessments. In addition, the probing questions found in the Teacher's Edition allow for many opportunities to informally assess and monitor student learning.

Evidence

- Teacher's Edition Program Overview—pp. 36–37; 72–73.
- Assessment Sourcebook

Assesses student proficiency using methods that are accessible and unbiased

Assessment items and procedures across grades K–5 are culturally, linguistically, and individually non-biased and were constructed to meet the needs of every learner. Word problems share and reflect cultural information responsibly in both the instructional content and in assessments.

Includes aligned rubrics, answer keys and scoring guidelines that provide guidance for interpreting student performance

enVisionmath2.0 provides report resources to provide a comprehensive description of students' current skill level and ability. Item analysis and scoring guides are available for every lesson in every grade level with accompanying diagnosis and intervention. Online assessments at PearsonRealize.com generate a variety of helpful reports and provide ways to edit information about students as well as prescribe differentiation, while Quick Checks are also available within the print lessons to inform progress for differentiation. Individual and class views of progress are provided in an easy-to-view format online. Standards mastery reports show individual students' mastery or class-wide mastery for each standard.

Uses curriculum-embedded assessments such as pre-, formative, summative and selfassessment measures

Assessments are embedded throughout the **enVision**math**2.0** program. Daily formative assessments occur after instruction and before practice, with student-specific differentiated intervention provided. Summative assessments are at the end of each Topic and unit to determine student



V. Assessment:

understanding of each concept, while Readiness Assessments inform intervention. Benchmark and End-of-Year Assessments include performance tasks that students will find on high-stakes assessments.

Students can self-assess throughout the program. They receive positive feedback and gentle correction when using a number of online offerings for **enVision**math**2.0** for grades K–5. The interactivity within the Visual Learning Animations Plus, a feature available for every lesson, often offers low pressure correction and positive feedback. Students will encounter this when using the digital Math Games at all grade levels, where they are encouraged to adapt their play to achieve the goals of the game and stretch their math understanding as they try for additional rewards within the game. Additionally, various features in the online Practice Buddy (grades 3–5) offer positive feedback and personalized help features.

High stakes Common Core Assessments include a ³/₄ year Performance-Based Assessment as well as an end of year assessment with a variety of selected response, constructed response, and technology enhanced items. Each Topic also contains two additional Performance Tasks, requiring students to integrate knowledge and skills across multiple standards.

	enVisio	nmath2.0 Assessments
Туре	When	Details
Diagnostic Assessments	At the start of the year	 Beginning-of-the Year Assessment Diagnose students' areas of strength and weakness; results can be used to prescribe differentiated intervention
	At the start of a topic	 Topic Readiness Assessment Diagnose students' proficiency with topic pre3requisite concepts and skills; results can be used to generate personalized study plan
		 Review What You Know Students check their understanding of key math concepts they previously learned.
Formative Assessment	During a lesson	 Try It! and Convince Me! Assess students' understanding of concepts and skills presented in each example; results can be used to modify instruction as needed
		 Do You Understand? and Do You Know How? Assess students' conceptual understand and procedural fluency with lesson content; results can be used to review or revisit content

V. Assessment:		
	At the end of a lesson	 Lesson Quiz Assess students' conceptual understanding and procedural fluency with lesson content; results can be used to prescribe differentiated instruction
Summative	At the end of a topic	Topic Assessment, Form A and Form B
Assessment		 Assess students' conceptual understanding and procedural fluency with topic content
		 Additional Topic Assessment with ExamView CD
		 Topic Performance Task, Form A and Form B Assess students' ability to apply concept learned and proficiency with math practices.
	After a group of topics	 Cumulative/Benchmark Assessment Assess students' understanding of and proficiency with concepts and skills taught throughout the school year; results can be used to prescribe intervention.
	At the end of the year	 End-of-Year Assessment Assess students' understanding of and fluency with concepts and skills taught over the full
Self- Assessment Tool	Ongoing	 Teaching Tool Master in Teacher's Resource Masters

Comprehensive Assessments. Teachers can assess students' current skills and abilities.

Requires understanding of appropriate terminology and symbolic representation in order to read, write to explain, and interpret the language of mathematics

The formats of the assessment items, which help prepare students for high-stakes PSSA, include the following:

- Selected response, e.g., single response, multiple response
- Constructed response, e.g., short or extended responses, sometimes using an on-screen symbols palette
- Technology-enhanced items, e.g., drag and drop, drop-down menus, graphing, or on-screen tools
- Performance tasks, hand-scored, or machine-scored items



V. Assessment:

Every lesson includes CCSS practice items in formats that help prepare students for PSSA. Math Practices and Problem Solving lessons include opportunities for students to engage specific math practices as they solve problems in performance-based assessments. Performance Tasks measure students' understanding of concepts and skills across standards and incorporating the practices.

Activities allow for remediation, practice, and enrichment

The **enVision**math**2.0** program lets teachers collect and use assessment data quickly and easily to inform, plan, and adjust instruction for learners. **enVision**math**2.0** provides resources to facilitate data-driven decision making.

Data from online assessments at PearsonRealize.com include a variety of class and individual reports that show results for an item, an assessment, or a group of assessments. Standards mastery is also available for individual or class reports.

Data from other assessments can include more than students' scores. SDP teachers can examine and discuss students' work on assessments to gain and record valuable insights into what individual students and the class understand and where they are still struggling.

Teachers can form groups based on assessment data to plan instruction or assign differentiated resources. Differentiation is also auto assigned after online Quick Checks/Quizzes, Topic Assessments, and Cumulative/Benchmark Assessments.

The Quick Check or Quiz in each lesson identifies differentiated resources suitable for each student. enVisionCENTERS in **enVision**math**2.0** make it easier for SDP grades K–5 educators to provide the appropriate level of instruction for a range of learning needs, including struggling students and gifted learners. While the teacher is working directly with the intervention students on the Reteach to Build Understanding piece, other students are launching their enVisionCENTERS.

This Quick and Easy Centers Kit for differentiated instruction holds all the resources for the differentiated centers, making classroom management efficient. These centers include activities that correspond with Problem Solving Reading Mats, Digital Math Tools, and Games. The centers also lead students through center games using manipulatives, as well as math and science activities. Topic-level differentiation can be auto-assigned or teacher-assigned.

Culminating activities/projects require students to research outside of immediate text and rely on prior and new knowledge

Topic Performance Tasks assess students' ability to apply concept learned and proficiency with math practices to solve real-world task.

V. Assessment:

Each Topic introduces a math and science project with a science theme. Students in grades K–5 will engage in research and write a report. This theme is revisited in the Math and Science Activities and in some lesson exercises. Students will work on the Math and Science Project over several days. An Extension is also provided in addition to Sample Student Work. Two lessons in a topic include a Math and Science Activity page that relates to the topic's science theme that is introduced in the Topic Opener.

Today's Challenge online for grades K–5 presents a science factoid at the start of many sets of problems and science data are used in many problems.

VI. Parent Connections: Suggestions for improving study habits Online parent homework help center Activities for ongoing practice (such as: interactive notebooks, study cards, flashcards, vocabulary reinforcement, games) 3 2 1 0 Rating Evidence: Suggestions for improving study habits The Math Practices and Problem Solving Handbook at the front of the Student's Edition includes the following features that help students improve study habits: Math Practices provides a page for each math practice as a resource for students and teachers to use throughout the year when discussing math practices. Math Practices student pages include: A clarifying statement about what good math thinkers do when they engage the math practice. 0 A sample problem that lends itself to engaging the math practice. Thinking Habits questions that help students engage the math practice when solving problems. 0 Problem Solving provides resources for students and teachers that facilitate problem solving experiences on a daily basis, including the following: • Problem Solving Guide is a resource you can use to facilitate students' work solving problems. The guide incorporates math practices and includes questions to guide students' thinking.



VI. Parent Connections:

- **Problem Solving Recording Sheet** can be made available at any time to help students use the Problem Solving Guide and provide a structure for recording their work as they solve a problem.
- **Bar Diagrams** in the Grades 3–5 Math Practices and Problem Solving Handbook present bar diagrams and give examples of how they can be used to solve problems. For a discussion of bar diagrams in grades K–5, see pages 58–61.

Online parent homework help center

The Visual Learning Bridge and the Visual Learning Animation Plus provide a clear resource for parents to understand the lesson concepts. The interactive Visual Learning Animation Plus videos provide students and parents with the opportunity to review what has been learned in class anytime, anywhere. The Visual Learning Animation and Visual Learning Bridge connect students' thinking and solutions from the problem-based learning to the new mathematical ideas of the lesson. Students and parents can bounce directly to the video from the Visual Learning Bridge in every lesson using the free BouncePages application.

These two key elements of the **enVision**math**2.0** program make the mathematics of each lesson explicit to students, confirming deep conceptual understanding that is key for success with the next generation assessments. Student assignments are available online for parents to review. Homework and Practice includes Another Look example with an accompanying video online through Pearson Realize to remind students and parents about important ideas in the lesson. Students and parents can bounce directly to the video from the Another Look problem in every lesson using the BouncePages application.

Parent Letters are provided for each topic to encourage math discussion and activities for home use to reinforce what students are learning in class. Parent Letters are available in English and Spanish

Activities for ongoing practice (such as: interactive notebooks, study cards, flashcards, vocabulary reinforcement, games)

The digital resources for students include the following to support ongoing practice and interactivity to promote student engagement:

- eText Student's Edition (in English and Spanish). This contains the entire print Student's Edition online and can be downloaded for offline use on a tablet through the Pearson eText for School app.
- ACTIVe-book, Student Edition (in English and Spanish). This resource provides assignable Student Edition pages with interactivity to allow students to take notes, ask questions, and journal.



VI. Parent Connections:

- Math Games (in English and Spanish). These online thinking games motivate students and enhance learning. Intelligently interactive, each game challenges students to apply previous math learning and to build more complex concepts. These games include a fluency game for each CCSS fluency standard and a vocabulary game.
- Math Practices Animations (in English and Spanish). enVisionmath2.0 features short videos for each of the eight Mathematical Practices. Videos explain and demonstrate each Mathematical Practice in student-friendly language.
- Another Look Homework Videos (in English and Spanish). These videos provide help for every lesson from an engaging video that presents an example similar to the one in Another Look in the Student Edition. Students can bounce directly to the video from the Another Look problem in every lesson using the free BouncePages app.
- Visual Learning Animations Plus (in English and Spanish). Students interact with this step-by-step representation of the lesson concept, which helps to make the mathematics explicit. They can bounce directly to the video from the Visual Learning Bridge in every lesson using the free BouncePages app.
- Practice Buddy Online. Practice Buddy offers auto-scoring with on-screen help and online personalized practice that provides Independent Practice, Math Practices, and Problem Solving as well as Homework and Practice for every lesson at grades 3–5. This feature also provides practice and assessment on fluency sub-skills.
- Adaptive Homework & Practice powered by Knewton. Includes on-level work, as well as instruction and practice of prerequisite skills where the student demonstrated extra help would be beneficial. Learning never stops, students make steady progress to mastery of the lesson content by focusing their time on the prerequisite and grade-level skills. Because homework is targeted to the individual student's understanding, it is therefore a more productive experience in providing practice, additional instruction (learning aids) when needed, and confirming that each student is ready to progress to the next day's objective.
- Today's Challenge (in English and Spanish). This feature provides five problems with increasing difficulty using the same data to reinforce the kind of thinking students need for success on next generation assessments.
- Solve and Share (in English and Spanish). Each lesson opens with a rich problem for students to discuss and share solution strategies. Students begin every lesson with the power of problem-based learning and classroom conversation.
- Math Tools and Digital Math Tools Activities. This suite of digital math tools is designed to reinforce lesson content and previously taught content. Students have access to a wide range of interactive digital tools anytime and anywhere. For every lesson, there is a Digital Math Tools Activity (online blackline master) provided or a reference to an Online Math Game.



VI. Parent Connections:

- Animated Math Glossary (in English and Spanish). This online program glossary for students includes sound and animation to build understanding of math vocabulary.
- The program emphasizes vocabulary through a whole page of Vocabulary Review in each topic in the Student's Edition. Vocabulary cards for each Topic are provided in the Student's Edition. Students study the word and an example or description on the front of the card and use the word to complete a sentence on the back of the card.

