Math Curriculum Evaluation Toolkit

CCSESA

California County Superintendents
Educational Services Association

Curriculum & Instruction
Steering Committee

Introduction

The Common Core State Standards do not prescribe a singular approach to instructional resources, but require that student achievement be raised through the 21st Century skills of Creativity, Critical thinking, Communication and Collaboration.

This document is meant to be a tool that guides and facilitates the process teams of educators will use to evaluate materials designed to teach, explain and demonstrate the Common Core. This document is based on the information found in the 2013 Math Framework http://www.cde.ca.gov/ci/ma/cf. Noted in the 2013 Math Framework is following explanation:

> ... this document establishes criteria for evaluating instructional materials for the eight-year adoption cycle beginning with the primary adoption in 2013-14. These criteria serve as evaluation guidelines for the statewide adoption of mathematics instructional materials for kindergarten through grade eight, as called for in *Education Code* Section 60207.

The Common Core State Standards for Mathematics alone cannot raise achievement; this is done by a skilled educator with appropriate curriculum. The Resources tab at http://www.corestandards.org holds a document titled "K-8 Publisher Criteria for the Common Core State Standards for Mathematics. This document states that the implications of the standards for mathematics could be summarized briefly as follows:

Focus: Place strong emphasis where the standards focus
Coherence: think across grades, and link to major topics in each grade
Rigor: in major topics, pursue with equal intensity conceptual understanding, procedural skill and fluency, and applications

This document is designed to prompt the user to look for various areas of content within each set of publisher materials. Focus, Coherence and Rigor will be the foundation of each section. The Standards for Mathematical Practice will surround the work we do, while the Math Content Standards are the core.

Focus, Coherence and Rigor definitions found at *www.corestandards.org*

Focus

Focus requires that we significantly narrow the scope of content in each grade so that students more deeply experience that which remains. Educators have come to see "narrowing" as a bad word—and it is a bad word, if it means cutting arts programs and language programs. But the number of math topics has swelled in this country. The Standards are telling us that math actually needs to lose a few pounds. The overwhelming focus of the Standards in early grades is arithmetic along with the components of measurement that support it. That includes the concepts underlying arithmetic, the skills of arithmetic computation, and the ability to apply arithmetic to solve problems and put arithmetic to engaging uses. Arithmetic in the K–5 standards is an important life skill, as well as a thinking subject and a rehearsal for algebra in the middle grades. Focus remains important through the middle and high school grades in order to prepare students for college and careers; surveys suggest that postsecondary instructors value greater mastery of prerequisite math topics over shallow exposure to a wide array of topics with dubious relevance to postsecondary work.

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Coherence

Coherence is about making math make sense. Mathematics is not a list of disconnected tricks or mnemonics. It is an elegant subject in which powerful knowledge results from reasoning with a small number of principles such as place value and properties of operations. The standards define progressions of learning that leverage these principles as they build knowledge over the grades. When people talk about coherence, they often talk about making connections between topics. The most important connections are vertical: the links from one grade to the next that allow students to progress in their mathematical education. This is why it is critical to think across grades and examine the progressions in the standards to see how major content develops over time. Connections at a single grade level can be used to improve focus by tightly linking secondary topics to the major work of the grade. For example, in grade 3, bar graphs are not "just another topic to cover." Rather, the standard about bar graphs asks students to use information presented in bar graphs to

solve word problems using the four operations of arithmetic. Instead of allowing bar graphs to distract from the focus on arithmetic, the standards are showing how bar graphs can be positioned in support of the major work of the grade. In this way coherence can support focus.

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Rigor

To help students meet the expectations of the standards, educators will need to pursue, with equal intensity, three aspects of rigor in the major work of each grade: conceptual understanding, procedural skill and fluency, and applications. The word “understand” is used in the Standards to set explicit expectations for conceptual understanding, the word “fluently” is used to set explicit expectations for fluency, and the phrase “real-world problems” and the star symbol is used to set expectations and flag opportunities for applications and modeling (which is a Standard for Mathematical Practice as well as a content category in High School).

Section ONE

Alignment to the Common Core State Standards and Progressions

Consider the following quote to frame the work of examining instructional materials for alignment to the focus, coherence, and rigor called for in the Common Core Standard for Mathematics:

"Publishers and purchasers are equally responsible for a healthy materials market. Publishers cannot deliver focus to buyers who only ever complain about what has been left out, yet never complain about what has crept in. More generally, publishers cannot invest in quality if the market doesn't demand it of them nor reward them for producing it." (From the K-8 Publishers' Criteria for the Common Core State Standards for Mathematics)

We have to be more knowledgeable purchasers of curriculum and materials by viewing possible curriculum through the lens of usability and accuracy. This section is designed to guide you to determine whether or not the program is worthy of close examination and to assess the degree to which it aligns with the Common Core approach to key mathematical content topics at relevant grade spans.

This section makes frequent reference to the CCSS and the progressions documents, which can be found at: http://commoncore.fcoe.org/subject/mathematics . The Common Core State Standards in mathematics were built on progressions: narrative documents describing the progression of a topic across a number of grade levels, informed both by research on children's cognitive development and by the logical structure of mathematics. These documents were spliced together and then sliced into grade level standards. From that point on the work focused on refining and revising the grade level standards. The early drafts of the progressions documents no longer correspond to the current state of the standards.

Select a topic for which the Common Core approach differs significantly from the approach of the 1997 California Mathematics Standards, based on your study of the Common Core Standards and Progression documents.

OVERVIEW OF THE TASKS (Section One)

1. Choose a grade span to analyze.
2. Using the Common Core State Standards and the Math Progressions, verify that curriculum contains lessons that align to the CCSS approach to key content topics at the appropriate grade level by doing the following:
    a. Choose a topic to examine **(you will need to choose additional topics to engage in a complete analysis of the curriculum)**
    b. Reference the appropriate Math Progression and the CCSS.
    c. Compare to the curriculum

Please note the following:

1. **Specific examples to look for are included in the document. Do not limit your analysis to the topics offered as possibilities.**
2. **This is not an easily quantifiable activity and participants need to justify and qualify their concerns.**

Possible topics to examine in the K-2 span:

1. Approach to counting/cardinality and addition in K-2
2. Lessons that lead to multiplication in third grade

Topic 1. Approach to counting/cardinality and addition in K-2

Regarding the CCSS and Math Progressions*:

A. Fluency develops as the culmination of students' progression through the following stages:

Level 1. Direct modeling by counting all or taking away. (Page 36 of CC and OA Progression.)

Level 2. Counting on. (Page 37 of CC and OA Progression.)

Level 3. Convert to an easier equivalent problem. (Page 38 of CC and OA Progression.)

B. Emphasis of the standard algorithm above "strategies based on place value" is not appropriate until grade 4. (See 1.NBT.4, 2.OA.2, 2.NBT.5-7, 3.NBT.3, 4.NBT.4)

C. An appropriate variety of addition and subtraction situations are provided. See page 9 of CC and OA Progression.

Examining Kindergarten :

- Students learn the count sequence and connect counting to cardinality (K.CC.4).
- Students understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.
- Students develop fluency in adding and subtracting single-digit numbers within 5. (See page 18 of CC and OA Progression.)

Look for the following:

A. The textbook provides daily routines that help students develop their proficiency with both perceptual and conceptual subitizing (being able to "see" the quantity of a set without having to count) as a foundation for single-digit fluency. For example, students should have plentiful opportunities to develop the ability to recognize the cardinality of a collection of 9 objects arranged in various ways (i.e. 7 and 2, 4 and 5, etc.). See page 4 of CC and OA Progression.

B. Addition and subtraction concepts develop through plentiful opportunities for direct modeling and counting all, then counting on. (See pages 36-37 of CC and OA Progression.)

C. The textbook provides word problems representing an appropriate variety of addition and subtraction situations, taken from the following types: Add To with Result Unknown; Take From with Result Unknown; and put Together/Take Apart

with Total Unknown and Both Addends Unknown. (See pages 9-10 of CC and OA Progression.)

*An explanation of the Math Progressions can be found on page 4

Examining grade 1

- Students develop fluency in adding and subtracting single-digit numbers within 10. (See page 18 of CC and OA Progression.)
- Students use properties of addition to add whole numbers and to create and use increasingly sophisticated strategies based on these properties to solve addition and subtraction problems within 20. They develop, discuss, and use efficient, accurate, and generalizable methods to add within 100 and subtract multiples of 10 (1st Grade Critical Areas #1-2)

Look for the following:

A. The textbook provides explicit support for Level 2 and Level 3 strategies for addition and subtraction problems within 20. (See pages 14-17 of CC and OA Progression.)
B. The textbook provides an appropriate variety of addition and subtraction situations. (See page 9 and pages 12-14 of CC and OA Progression.)

Note your findings here:
What was aligned?

What was not aligned?

Will this curriculum require supplemental materials?

Topic 2. Lessons that lead to multiplication in third grade
Regarding the CCSS and Math Progressions:

A program aligned to the Common Core makes no explicit introduction of multiplication in the K-2 grade span, as there is no mention of multiplication in the K-2 Common Core Standards for mathematics. Rather, there should be lessons that engage students with addition in ways that provide a conceptual foundation for multiplication: skip counting (2.NBT.2), arrays (2.OA.4) and repeated addition (2.OA.4).

Examining grade 2

- Students develop fluency in adding and subtracting single-digit numbers within 20. (See page 18 of CC and OA Progression.)
- Students use their understanding of addition to develop fluency with addition and subtraction within 100. They solve problems within 1000 by applying their understanding of models for addition and subtraction, and they develop, discuss, and use efficient, accurate, and generalizable methods to compute sums and differences of whole numbers in base-ten notation, using their understanding of place value and the properties of operations. (2nd Grade Critical Area #2)
- Students engage with addition in ways that prepare them for multiplication. Examples should include skip counting (2.NBT.2), arrays (2.OA.4) and repeated addition (2.OA.4). Multiplication itself should not be introduced until 3rd grade.

Look for the following:

A. The textbook provides "representations such as manipulative materials, math drawings and layered three-digit place value cards [that] afford connections between written three-digit numbers and hundreds, tens, and ones." (See page 8 of NBT Progression)
B. The textbook provides explicit opportunities to further develop students' flexible use of Level 3 composition and decomposition and Level 2 counting-on strategies.
C. The textbook provides an appropriate variety of situational problems of all three types which involve addition and subtraction within 100, and two-step situational problems of all three types. (See pages 9 and 18 of CC and OA Progression.)
D. The textbook provides addition lessons for skip counting (2.NBT.2), arrays (2.OA.4) and repeated addition (2.OA.4).
E. The textbook DOES NOT provide too-early introduction to multiplication. Multiplication should not be introduced until 3rd grade.

Note your findings here:

What was aligned?

What was not aligned?

Will this curriculum require supplemental materials?

Possible topics to examine in the 3-5 span:

1. Approach to multiplication
2. Approach to fractions

Topic 1. Approach to multiplication in 3-5

Regarding the CCSS and Math Progressions:

A. A program aligned to work with multiplication begins formal instruction at grade 3 (3.NF.1-4) B. Emphasis on reasoning (NBT Progression)

There is no mention of multiplication in the K-2 Common Core Standards for mathematics, except for addition "with equal groups to gain foundations for multiplication" (2nd Grade, Operations and Algebraic Thinking, cluster heading C) . In third grade we see the beginning of multiplication in 3.OA.1: "Interpret products of whole numbers…"

The third grade Measurement and Data domain relates to multiplication in 3.MD.7: "relate area to the operations of multiplication and addition." These concept-based standards address multiplication in the form of the area model and tiling for students to "understand concepts of area and relate area to multiplication and to addition" (OA Progression grades K-5).

<u>Examining the grade 3:</u>

- Students develop an understanding of the meanings for multiplication and division of whole numbers through activities and problems involving equal-sized groups, arrays and area models.
- Students begin instruction on multiplication in 3rd grade, reserving K-2 for pre-multiplication concepts and skills (i.e. addition work that lays the foundation for multiplication).

<u>Look for the following:</u>

A. The textbook begins instruction on multiplication in 3rd grade with only one specific standard addressing multiplication* (standards 3.OA.1, leads to 3.OA.5). This develops relational thinking prior to an emphasis on memorization of multiplication facts.
B. The textbook asks students to describe a context in which a total number of objects can be expressed as, say 5 x 7

C. Students are asked to use drawings and equations with a symbol for the unknown number to represent the problem.
D. Students apply properties of operations *as strategies to multiply (3.OA.5).*
E. The textbook asks students to fluently multiply within 100 *using strategies such as the relationship between multiplication and division.*

*One standard mentions only multiplication, the rest mention multiplication and division.

Examining grade 4

- In grade 4, students build on the concepts learned in grade 3. Standards 4.OA.1, 2, 3 & 4 all involve students comparing multiplication problems, solving word problems and gaining familiarity with factors and multiples.

Look for the following:

A. The textbook represents multiplication equations as comparison, e.g., "interpret 35 = 5 × 7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5".
B. The textbook asks students to find all factor pairs for a whole number in the range 1–100.
C. Students are asked to recognize that a whole number is a multiple of each of its factors.
D. Students are asked to determine whether a given whole number in the range 1–100 is prime or composite.

Note your findings here:
What was aligned?

What was not aligned?

Will this curriculum require supplemental materials?

Topic 2. Approach to fractions

Regarding the CCSS and Math Progressions*:

The Number and Operations - Fractions Progression begins by stating: “In Grades 1 and 2, students use fraction language to describe partitions of shapes into equal shares. In Grade 3 they start to develop the idea of a fraction more formally, building on the idea of partitioning a whole into equal parts. The whole can be a shape such as a circle or rectangle, a line segment, or anyone finite entity susceptible to subdivision and measurement. In Grade 4, this is extended to include wholes that are collections of objects (3-5NO-F Progression). Two important aspects of fractions provide opportunities for the mathematical practice of attending to precision are (1) specifying the whole and (2) explaining what is meant by “equal parts.”

<u>Examining grade 3:</u>

- Use of number lines (Number and Operations- Fractions Progression)
- The textbook addresses fractions by using a number line diagram.
- The textbook compares two fractions with the same numerator or the same denominator by reasoning about their size.

<u>Look for the following:</u>

A. The textbook compares two fractions with the same numerator.(3.NF.3d / 4.NF.3)
B. The textbook compares two fractions with the same denominator.(3.NF.3d / 4.NF.3)
C. The textbook displays fractions as a number on a number line and represents fractions on a number line diagram (4.NF.1).
D. The textbook DOES NOT add and subtract fractions with unlike denominators (this occurs in 5th grade 5.NF.1).

Note your findings here:
What was aligned?

What was not aligned?

Will this curriculum require supplemental materials?

*An explanation of the Math Progressions can be found on page 4

Examining grade 4:

- Number lines (Number and Operations- Fractions Progression)
- The textbook addresses fractions by using a number line diagram.
- The textbook compares two fractions with the same numerator or the same denominator by reasoning about their size.

Look for the following:

A. Students are asked to compare two fractions with different numerators and different denominators using more than one method.
B. The textbook decomposes a fraction into a sum of fractions with the same denominator in more than one way. (4.NF.3b)
C. The textbook uses decimal notation for fractions with denominators 10 and 100 (4.NF.5-6)
D. The textbook engages students with visual fraction models throughout (e.g. number lines). (See 4.NF.1, 2, 3b, 3d, 4a, 4b, 4c.)
E. The textbook DOES NOT introduce division of fractions for grade 4, but waits until grade five.

Note your findings here:
What was aligned?

What was not aligned?

Will this curriculum require supplemental materials?

Examining grade 5:

- Students apply their understanding of fractions and fraction models to represent the addition and subtraction of fractions with unlike denominators as equivalent calculations with like denominators.
- Students use the meaning of division to understand and explain why the procedures for multiplication and dividing fractions make sense.

Look for the following:

A. Students are asked to add and subtract fractions with unlike denominators by replacing fractions with equivalent fractions.
B. The textbook encourages students to use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers.
C. Students are asked to explain why multiplying a given number by a fraction greater than 1 results in a product greater than the given number.
D. The textbook addresses division of unit fractions by whole numbers and whole numbers by unit fractions, but DOES NOT generalize division of fractions by fractions.

Note your findings here:
What was aligned?

What was not aligned?

Will this curriculum require supplemental materials?

Possible topics to examine in the 6-8 span:

1. **Approach to number systems**
2. **Approach to ratios and proportional relationships in 6-7 and functions in grade 8**

Topic 1. Approach to number systems in 6-8

Regarding the CCSS and Math Progressions*:

"In Grades 6-8, students build on two important conceptions which have developed throughout K-5, in order to understand the rational numbers as a number system. The first is the representation of whole numbers and fractions as points on the number line, and the second is a firm understanding of the properties of operations on whole numbers and fractions." (Number System Progression)

Look for the following in grade 6:

a. The textbook uses visual fraction models and story contexts as well as equations to represent fraction division problems. (See page 5 of NS Progression and 6.NS.1)
b. "Although negative integers might be commonly used as initial examples of negative numbers, the Standards do not introduce the integers separately from the entire system of rational numbers, and examples of negative fractions or decimals can be included from the beginning." (See page 7 of NS Progression)
c. The grade 6 textbook DOES NOT add, subtract, multiply, or divide negative rational numbers. (7.NS.1)**

Look for the following in grade 7:

a. The textbook represents addition and subtraction of rational numbers on horizontal and / or vertical number line diagrams. (7.NS.1)
b. The textbook justifies that a negative times a negative is positive because it otherwise would not satisfy the properties of operations. (See page 11 of NS Progression and 7.NS.2s)

Look for the following in grade 8:

a. The textbook introduces irrational numbers and uses rational approximations to locate them approximately on the number line (8.NS.2)

*An explanation of the Math Progressions can be found on page 4
**For advanced learners (acceleration/compaction), it may make sense for concepts to be introduced at an earlier grade—especially if an LEA plans to offer Algebra I and Mathematics I before grade nine.

Note your findings here:

What was aligned?

What was not aligned?

Will this curriculum require supplemental materials?

Topic 2. Approach to ratios and proportional relationships in 6-7 and functions in grade 8

Regarding the CCSS and Math Progressions*:
"The study of ratios and proportional relationships extends students' work in measurement and in multiplication and division in the elementary grades. Ratios and proportional relationships are foundational for further study in mathematics and science and useful in everyday life" (Introduction to RP Progression). In grade 8, students build on experience with graphs and tables from grades 6 and 7 to "establish a routine of exploring functional relationships algebraically, graphically, numerically in tables, and through verbal descriptions." (Page 5 of Functions Progression)

Look for the following in grade 6:

A. The textbook supports students using strategies for solving proportion problems, rather than setting up equations (See page 6 of RP Progression)
B. The textbook incorporates tape diagrams, double number lines, and ratio tables (6.RP.3, 3a)

Look for the following in grade 7:

A. Students engage with tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships, which are critical foundations for students' 8th grade work in the domain of Functions. (7.RP.2b)
B. Students graph proportional relationships and interpret points "(x, y) on the graph in terms of the situation, with special attention to the points (0,0) and (1, r), where r is the unit rate. (7.RP.2d)"

Look for the following in grade 8:

A. The textbook's treatment of functions routinely engages students with four representations: algebraic, graphical, numerical in tables, and verbal descriptions. (8.F.2)

*An explanation of the Math Progressions can be found on page 4

Note your findings here:

What was aligned?

What was not aligned?

Will this curriculum require supplemental materials?

Possible topics to examine in the Algebra 1/Integrated 1 span:

1. Approach to understanding the concept of a function and using function notation. Learn as general principle; focus on linear and exponential and on arithmetic and geometric sequences
2. Approach to constructing and comparing linear and exponential models to solve problems

Note: The units above appear in both the Algebra 1 and the Integrated sequences

Topic 1. Approach to understanding the concept of a function and using function notation.

Regarding the CCSS and Math Progressions*:

The high school standards on functions are organized into four groups: Interpreting Functions (F-IF); Building Functions (F-BF); Linear, Quadratic and Exponential Models (F-LE); and Trigonometric Functions (F-TF). The organization of the first two groups under mathematical practices rather than types of function is an important aspect of the Standards: students should develop ways of thinking that are general and allow them to approach any type of function, work with it, and understand how it behaves, rather than see each function as a completely different animal in the bestiary. For example, they should see linear and exponential functions as arising out of structurally similar growth principles; they should see quadratic, polynomial, and rational functions as belonging to the same system (helped along by the unified study in the Algebra category of Arithmetic with Polynomials and Rational Expressions).

A. Fluency develops as the culmination of students' progression through the following stages:

Level 1. Begin to refine their understanding and use the formal mathematical language and notation of functions. (Page 11 of CC Framework and Progressions)

Level 2. Become fluent in function notation and can interpret the results in context . (Page 8 of Progressions and CC Framework)

Level 3. Recognize that sequences are functions . (Page 11 of CC Framework and Progressions)

Look for the following:

A. The textbook asks students often to make the connection between the graph of the equation $y=f(x)$35T and the function itself, namely, that the coordinates of any point on the graph represent an input and output, expressed as $(x,f(x))$35T, and understand that the graph is a *representation* of a function. They connect the domain and range of a function to its graph (F.IF.5). Note that there is neither an exploration

of the notion of *relation vs. function* nor the *vertical* line *test* in the CA CCSSM. This is by design. The core question when investigating functions is: "Does each element of the domain correspond to exactly one element of the range?"

B. The textbook should group family of functions (linear and exponential and to a lesser extent quadratic) together to receive extensive treatment and comparison within a dedicated group. Students are expected to develop fluency with only linear, exponential and quadratic functions in Algebra I, which includes the ability to graph them by hand for simple cases and use technology for more complex ones.
C. The textbook should include many opportunities for students to practice and become proficient at explaining correspondence between equations, verbal expressions, tables and graphs. The textbook should also ask students to make interpretations about similar functions and their exact transformation based on function notation. For example that $f(a + 2)$ would be exactly 2 greater than each output of $f(a)$.

Note your findings here:

What was aligned?

McGraw is aligned with Common Core standard F.IF.1 by teaching students about domain and range, different function tests are discussed and function notation is covered. More specifically, the concept of a function is introduced in detail and correct function notation used. McGraw also introduces arithmetic and geometric sequences.

What was not aligned?

There is no consistency of standard focus being addressed. The standard are separate into mini section and McGraw does not seem to bring the mini skills back to a big idea. For example, the textbook lacks graphs and tables for the students to interpret.

Will this curriculum require supplemental materials?

Yes, additional materials will be need. First, supplemental materials will be needed to chunk lessons into manageable concepts for checking for understanding to occur. Another reason to use additional resources is to simplify the presentation since students are intimidated by how busy the book looks. Also, functions are really not covered in depth. They are sporadically mentioned throughout several chapters.

Topic 2. Approach to constructing and comparing linear and exponential models to solve problems

Regarding the CCSS and Math Progressions*:

The previous group of standards focuses on interpreting functions given by expressions, graphs, or tables. The Building Functions group focuses on building functions to model relationships, and building new functions from existing functions.

Modeling the world often involves investigating rates of change, patterns of growth. Two important families of functions characterized by laws of growth are linear functions, which grow at a constant rate, and exponential functions, which grow at a constant percent rate. In standards F-LE.1a-c, students recognize and understand the defining characteristics of linear, quadratic, and exponential functions.

A. Fluency develops as the culmination of students' progression through the following stages:

Level 1. Write a function that describes a relationship between two quantities given by sequence patterns, tables and/or graphs. (Page 12 of Progressions and CC Framework)

Level 2. Build functions with translations in multiple forms. They should be able to connect the function, verbal explanation, graphs and table fluently. (Page 12 of Progressions and CC Framework)

Level 3. Given a real life application, apply function reasoning to model how quantities change together. (Page 14 of CC Framework and Progressions)

Look for the following:

A. Textbooks should include Standard F.IF.3 which represents a topic new to the traditional Algebra I course, that of *sequences*. Sequences are functions with a domain consisting of a subset of the integers. Back in grades four and five, students began to explore number patterns, and this work led into a full progression of ratios and proportional relationships in grades six and seven. Students have opportunities to translate arithmetic sequences into linear functions and Geometric sequences into exponential functions.
B. Textbooks should include mostly real life modeling problems in teaching building functions. Look for problems that include but are not limited to; exponential growth and decay problems, mortgage payment and drug dosage problems show typical recursive functions.
C. Textbook should include exploration and deep understanding between the transformation of a graph and its' corresponding function. This is new to Algebra/Integrated 1.

Note your findings here:
What was aligned?

The approach to constructing linear and exponential models to solve problems are introducing with explanation.

What was not aligned?

Both linear and exponential functions were covered. However, McGraw fails to compare linear and exponential models. Also, the Algebra 2 book did not have enough material on building the functions by looking at rates of change.

Will this curriculum require supplemental materials?

Yes

Section TWO
Alignment to the Mathematics Framework

To date, curricula have not always been balanced in their approach to these three aspects (focus, coherence and rigor). Some curricula stress fluency in computation, without acknowledging the role of conceptual understanding in attaining fluency. Some stress conceptual understanding, without acknowledging that fluency requires separate classroom work of a different nature. Some stress pure mathematics, without acknowledging that applications can be highly motivating for students, and moreover, that a mathematical education should prepare students for more than just their next mathematics course. At another extreme, some curricula focus on applications, without acknowledging that math doesn't teach itself.

The Standards set high expectations for all three components of rigor in the major work of each grade. Of course, that makes it necessary that we first follow through on the focus in the Standards—otherwise we are asking teachers and students to do more with less.

The Math Framework includes these three specific categories:

1. **Mathematics Content/Alignment with the Standards**. Content as specified in the *Common Core State Standards for Mathematics with California Additions*, including the Standards for Mathematical Practices, and sequence and organization of the mathematics program that provide structure for what students should learn at each grade level.
2. **Program Organization.** Instructional materials support instruction and learning of the standards and include such features as lists of the standards, chapter overviews, and glossaries.
3. **Assessment**. Strategies presented in the instructional materials for measuring what students know and are able to do.

The following categories are also specific categories in the framework. For our purposes they are woven throughout the entire document:

- **Universal Access**. Access to the standards-based curriculum for all students, including English learners, advanced learners, students below grade level in mathematical skills, and students with disabilities.
- **Instructional Strategies**. Information and materials that contain a clear road map when planning instruction.

This portion of the document takes the criteria from the Math Framework and adds in prompts and questions to guide your study of the focus, coherence and rigor of all math textbooks.

Each section requires the user(s) to view the textbook material as a whole and not piece by piece—be sure to use the notes section to record your thoughts and evidence.

Note: A section for tabulating and comparing scores is found in Appendix A.

Category 1: Mathematics Content/Alignment with the Standards

Mathematics materials should support teaching to the *Common Core State Standards for Mathematics with California Additions*. Instructional materials suitable for adoption must satisfy the following criteria:

Part 1: The mathematics content is correct, factually accurate, and written with precision. Mathematical terms are defined and used appropriately. Where the standards provide a definition, materials use that as their primary definition to develop student understanding.

Prompt: Choose five lessons, each focused on a different standard or cluster of standards. Check for the information above. Verify with other members of your Textbook Adoption Team.

Algebra 1

No				Yes	
1	2	3	4	5	**Lesson A: 3.4**
___	___	___	_X_	___	Content is correct—there are no mistakes in presentation of mathematical content.
___	___	___	___	_X_	Factual accuracy—All facts information in the textbook is accurate.
___	___	___	_X_	___	Written with precision
___	___	___	_X_	___	Math terms are defined / appropriate
___	___	___	_X_	___	The textbook uses the given definitions to develop student understanding
___	___	_X_	___	___	If the materials address topics outside of the CCSS, the publisher provides a mathematical and pedagogical justification. **(Focus)**
___	___	___	_X_	___	Materials amply feature high-quality conceptual problems and questions that can serve as fertile conversation-starters in a classroom if students are unable to answer them. (**Rigor and Balance)**
___	___	_X_	___	___	Manipulates and concrete representations such as diagrams that enhance conceptual understanding are closely connected to the written and symbolic methods to which they refer. (**Rigor and Balance)**
___	___	___	_X_	___	Methods and algorithms are general and based on principles of mathematics, not mnemonics or tricks. (**Rigor and Balance)**

Notes:

Program is too rigorous for Algebra 1a.

Average of 3 responses.

No				Yes	
1	2	3	4	5	**Lesson B: 1.2**
___	___	___	___	_X_	Content is correct—there are no mistakes in presentation of mathematical content.
___	___	___	___	_X_	Factual accuracy—All facts information in the textbook is accurate.
___	___	___	_X_	___	Written with precision
___	___	___	_X_	___	Math terms are defined / appropriate
___	___	___	_X_	___	The textbook uses the given definitions to develop student understanding
___	___	_X_	___	___	If the materials address topics outside of the CCSS, the publisher provides a mathematical and pedagogical justification. **(Focus)**
___	___	___	_X_	___	Materials amply feature high-quality conceptual problems and questions that can serve as fertile conversation-starters in a classroom if students are unable to answer them. (**Rigor and Balance)**
___	___	_X_	___	___	Manipulates and concrete representations such as diagrams that enhance conceptual understanding are closely connected to the written and symbolic methods to which they refer. (**Rigor and Balance)**
___	___	___	_X_	___	Methods and algorithms are general and based on principles of mathematics, not mnemonics or tricks. (**Rigor and Balance)**

Notes:

For a chapter on order of operations. The problems need to be ones that do not require a calculator while they are getting used to the topic. Problems for this section are oddly difficult to start out with. Question 16 is 14^3. another questions asks 11^5. 1.2 had a diagram in the real-world example, somewhat helpful. Average of 5 teacher responses.

No				Yes	
1	2	3	4	5	**Lesson C: 5.1**
___	___	___	___	_X_	Content is correct—there are no mistakes in presentation of mathematical content.
___	___	___	___	_X_	Factual accuracy—All facts information in the textbook is accurate.
___	___	___	_X_	___	Written with precision
___	___	___	_X_	___	Math terms are defined / appropriate
___	___	_X_	___	___	The textbook uses the given definitions to develop student understanding
___	_X_	___	___	___	If the materials address topics outside of the CCSS, the publisher provides a mathematical and pedagogical justification. **(Focus)**
___	___	_X_	___	___	Materials amply feature high-quality conceptual problems and questions that can serve as fertile conversation-starters in a classroom if students are unable to answer them. (**Rigor and Balance)**
___	___	_X_	___	___	Manipulates and concrete representations such as diagrams that enhance conceptual understanding are closely connected to the written and symbolic methods to which they refer. (**Rigor and Balance)**
___	___	___	_X_	___	Methods and algorithms are general and based on principles of mathematics, not mnemonics or tricks. (**Rigor and Balance)**

Notes:

Can use an example with fractions. Average of 3 teachers responses.

No				Yes	
1	2	3	4	5	**Lesson D: 2.3**
___	___	___	_X_	___	Content is correct—there are no mistakes in presentation of mathematical content.
___	___	___	_X_	___	Factual accuracy—All facts information in the textbook is accurate.
___	___	___	_X_	___	Written with precision
___	___	___	_X_	___	Math terms are defined / appropriate
___	___	___	_X_	___	The textbook uses the given definitions to develop student understanding
___	___	___	_X_	___	If the materials address topics outside of the CCSS, the publisher provides a mathematical and pedagogical justification. **(Focus)**
___	___	_X_	___	___	Materials amply feature high-quality conceptual problems and questions that can serve as fertile conversation- starters in a classroom if students are unable to answer them. (**Rigor and Balance)**
___	___	___	_X_	___	Manipulates and concrete representations such as diagrams that enhance conceptual understanding are closely connected to the written and symbolic methods to which they refer. (**Rigor and Balance)**
___	___	___	_X_	___	Methods and algorithms are general and based on principles of mathematics, not mnemonics or tricks. (**Rigor and Balance)**

Notes:

Average of two teachers.

No				Yes	
1	2	3	4	5	**Lesson E: 7.1**
___	___	___	_X_	___	Content is correct—there are no mistakes in presentation of mathematical content.
___	___	_X_	___	___	Factual accuracy—All facts information in the textbook is accurate.
___	___	_X_	___	___	Written with precision
___	___	_X_	___	___	Math terms are defined / appropriate
___	_X_	___	___	___	The textbook uses the given definitions to develop student understanding
___	_X_	___	___	___	If the materials address topics outside of the CCSS, the publisher provides a mathematical and pedagogical justification. **(Focus)**
___	_X_	___	___	___	Materials amply feature high-quality conceptual problems and questions that can serve as fertile conversation-starters in a classroom if students are unable to answer them. (**Rigor and Balance)**
___	_X_	___	___	___	Manipulates and concrete representations such as diagrams that enhance conceptual understanding are closely connected to the written and symbolic methods to which they refer. (**Rigor and Balance)**
___	_X_	___	___	___	Methods and algorithms are general and based on principles of mathematics, not mnemonics or tricks. (**Rigor and Balance)**

Notes:

Lesson needs different ways of solving the problem and negative power should be introduce.

Geometry

No				Yes	
1	2	3	4	5	**Lesson A: 3.2**
___	___	___	___	_X_	Content is correct—there are no mistakes in presentation of mathematical content.
___	___	___	___	_X_	Factual accuracy—All facts information in the textbook is accurate.
___	___	___	___	_X_	Written with precision
___	___	___	___	_X_	Math terms are defined / appropriate
___	___	___	___	_X_	The textbook uses the given definitions to develop student understanding
___	___	___	___	_X_	If the materials address topics outside of the CCSS, the publisher provides a mathematical and pedagogical justification. **(Focus)**
___	___	___	___	_X_	Materials amply feature high-quality conceptual problems and questions that can serve as fertile conversation-starters in a classroom if students are unable to answer them. (**Rigor and Balance)**
___	___	___	___	_X_	Manipulates and concrete representations such as diagrams that enhance conceptual understanding are closely connected to the written and symbolic methods to which they refer. (**Rigor and Balance)**
___	___	___	___	_X_	Methods and algorithms are general and based on principles of mathematics, not mnemonics or tricks. (**Rigor and Balance)**

Notes:

The online support is weak and confusing.

No				Yes	
1	2	3	4	5	**Lesson B: 5.5**
___	___	___	___	_X_	Content is correct—there are no mistakes in presentation of mathematical content.
___	___	___	___	_X_	Factual accuracy—All facts information in the textbook is accurate.
___	___	___	___	_X_	Written with precision
___	___	___	___	_X_	Math terms are defined / appropriate
___	___	___	___	_X_	The textbook uses the given definitions to develop student understanding
___	___	___	___	_X_	If the materials address topics outside of the CCSS, the publisher provides a mathematical and pedagogical justification. **(Focus)**
___	___	___	___	_X_	Materials amply feature high-quality conceptual problems and questions that can serve as fertile conversation-starters in a classroom if students are unable to answer them. (**Rigor and Balance)**
___	___	___	___	_X_	Manipulates and concrete representations such as diagrams that enhance conceptual understanding are closely connected to the written and symbolic methods to which they refer. (**Rigor and Balance)**
___	___	___	___	_X_	Methods and algorithms are general and based on principles of mathematics, not mnemonics or tricks. (**Rigor and Balance)**

Notes:

Audio lesson is weak - not helpful. Can find resources much more helpful on internet.

No				Yes	
1	2	3	4	5	**Lesson C: 2.1**
___	___	___	___	_X_	Content is correct—there are no mistakes in presentation of mathematical content.
___	___	___	___	_X_	Factual accuracy—All facts information in the textbook is accurate.
___	___	___	___	_X_	Written with precision
___	___	___	___	_X_	Math terms are defined / appropriate
___	___	___	___	_X_	The textbook uses the given definitions to develop student understanding
___	___	___	___	_X_	If the materials address topics outside of the CCSS, the publisher provides a mathematical and pedagogical justification. **(Focus)**
___	___	___	___	_X_	Materials amply feature high-quality conceptual problems and questions that can serve as fertile conversation-starters in a classroom if students are unable to answer them. (**Rigor and Balance)**
___	___	___	___	_X_	Manipulates and concrete representations such as diagrams that enhance conceptual understanding are closely connected to the written and symbolic methods to which they refer. (**Rigor and Balance)**
___	___	___	_X_	___	Methods and algorithms are general and based on principles of mathematics, not mnemonics or tricks. (**Rigor and Balance)**

Notes:

No response provided.

No				Yes	
1	2	3	4	5	**Lesson D: 4.3**
___	___	___	___	_X_	Content is correct—there are no mistakes in presentation of mathematical content.
___	___	___	___	_X_	Factual accuracy—All facts information in the textbook is accurate.
___	___	___	___	_X_	Written with precision
___	___	___	___	_X_	Math terms are defined / appropriate
___	___	___	_X_	___	The textbook uses the given definitions to develop student understanding
___	___	___	_X_	___	If the materials address topics outside of the CCSS, the publisher provides a mathematical and pedagogical justification. **(Focus)**
___	___	___	___	_X_	Materials amply feature high-quality conceptual problems and questions that can serve as fertile conversation- starters in a classroom if students are unable to answer them. (**Rigor and Balance)**
___	___	___	___	_X_	Manipulates and concrete representations such as diagrams that enhance conceptual understanding are closely connected to the written and symbolic methods to which they refer. (**Rigor and Balance)**
___	___	___	___	_X_	Methods and algorithms are general and based on principles of mathematics, not mnemonics or tricks. (**Rigor and Balance)**

Notes:

No response provided.

No				Yes	
1	2	3	4	5	**Lesson E: 2.8**
___	___	___	___	_X_	Content is correct—there are no mistakes in presentation of mathematical content.
___	___	___	___	_X_	Factual accuracy—All facts information in the textbook is accurate.
___	___	___	___	_X_	Written with precision
___	___	___	___	_X_	Math terms are defined / appropriate
___	___	___	___	_X_	The textbook uses the given definitions to develop student understanding
___	___	___	___	_X_	If the materials address topics outside of the CCSS, the publisher provides a mathematical and pedagogical justification. **(Focus)**
___	___	___	___	_X_	Materials amply feature high-quality conceptual problems and questions that can serve as fertile conversation-starters in a classroom if students are unable to answer them. (**Rigor and Balance)**
___	___	___	___	_X_	Manipulates and concrete representations such as diagrams that enhance conceptual understanding are closely connected to the written and symbolic methods to which they refer. (**Rigor and Balance)**
___	___	___	___	_X_	Methods and algorithms are general and based on principles of mathematics, not mnemonics or tricks. (**Rigor and Balance)**

Notes:

No response provided.

Algebra 2

No				Yes	
1	2	3	4	5	**Lesson A: 12.3**
___	___	___	___	_X_	Content is correct—there are no mistakes in presentation of mathematical content.
___	___	___	___	_X_	Factual accuracy—All facts information in the textbook is accurate.
___	___	___	___	_X_	Written with precision
___	___	___	___	_X_	Math terms are defined / appropriate
___	___	___	___	_X_	The textbook uses the given definitions to develop student understanding
___	___	___	_X_	___	If the materials address topics outside of the CCSS, the publisher provides a mathematical and pedagogical justification. **(Focus)**
___	___	___	___	_X_	Materials amply feature high-quality conceptual problems and questions that can serve as fertile conversation-starters in a classroom if students are unable to answer them. (**Rigor and Balance)**
___	___	___	_X_	___	Manipulates and concrete representations such as diagrams that enhance conceptual understanding are closely connected to the written and symbolic methods to which they refer. (**Rigor and Balance)**
___	___	___	___	_X_	Methods and algorithms are general and based on principles of mathematics, not mnemonics or tricks. (**Rigor and Balance)**

Notes:

No response provided.

No				Yes	
1	2	3	4	5	**Lesson B: 10.3**
___	___	___	___	_X_	Content is correct—there are no mistakes in presentation of mathematical content.
___	___	___	___	_X_	Factual accuracy—All facts information in the textbook is accurate.
___	___	___	___	_X_	Written with precision
___	___	___	_X_	___	Math terms are defined / appropriate
___	___	___	_X_	___	The textbook uses the given definitions to develop student understanding
___	___	_X_	___	___	If the materials address topics outside of the CCSS, the publisher provides a mathematical and pedagogical justification. **(Focus)**
___	___	___	_X_	___	Materials amply feature high-quality conceptual problems and questions that can serve as fertile conversation-starters in a classroom if students are unable to answer them. (**Rigor and Balance)**
___	_X_	___	___	___	Manipulates and concrete representations such as diagrams that enhance conceptual understanding are closely connected to the written and symbolic methods to which they refer. (**Rigor and Balance)**
___	___	___	___	_X_	Methods and algorithms are general and based on principles of mathematics, not mnemonics or tricks. (**Rigor and Balance)**

Notes:

No response provided.

No				Yes	
1	2	3	4	5	**Lesson C: 7.3**
___	___	___	___	_X_	Content is correct—there are no mistakes in presentation of mathematical content.
___	___	___	___	_X_	Factual accuracy—All facts information in the textbook is accurate.
___	___	___	___	_X_	Written with precision
___	___	___	_X_	___	Math terms are defined / appropriate
___	___	_X_	___	___	The textbook uses the given definitions to develop student understanding
___	___	_X_	___	___	If the materials address topics outside of the CCSS, the publisher provides a mathematical and pedagogical justification. **(Focus)**
___	___	___	_X_	___	Materials amply feature high-quality conceptual problems and questions that can serve as fertile conversation-starters in a classroom if students are unable to answer them. (**Rigor and Balance)**
___	___	_X_	___	___	Manipulates and concrete representations such as diagrams that enhance conceptual understanding are closely connected to the written and symbolic methods to which they refer. (**Rigor and Balance)**
___	___	___	_X_	___	Methods and algorithms are general and based on principles of mathematics, not mnemonics or tricks. (**Rigor and Balance)**

Notes:

There seems to be a big jump from nevering having encountered a logarithm to knowing the terminology and symbols.

No				Yes	
1	2	3	4	5	**Lesson D: 1.2**
___	___	___	___	_X_	Content is correct—there are no mistakes in presentation of mathematical content.
___	___	___	___	_X_	Factual accuracy—All facts information in the textbook is accurate.
___	___	___	___	_X_	Written with precision
___	___	___	___	_X_	Math terms are defined / appropriate
___	_X_	___	___	___	The textbook uses the given definitions to develop student understanding
___	___	_X_	___	___	If the materials address topics outside of the CCSS, the publisher provides a mathematical and pedagogical justification. **(Focus)**
___	___	___	___	_X_	Materials amply feature high-quality conceptual problems and questions that can serve as fertile conversation- starters in a classroom if students are unable to answer them. (**Rigor and Balance)**
___	___	___	___	_X_	Manipulates and concrete representations such as diagrams that enhance conceptual understanding are closely connected to the written and symbolic methods to which they refer. (**Rigor and Balance)**
___	___	___	___	_X_	Methods and algorithms are general and based on principles of mathematics, not mnemonics or tricks. (**Rigor and Balance)**

Notes:

No response provided.

No				Yes	
1	2	3	4	5	**Lesson E: 4.1**
___	___	___	___	_X_	Content is correct—there are no mistakes in presentation of mathematical content.
___	___	___	___	_X_	Factual accuracy—All facts information in the textbook is accurate.
___	___	___	___	_X_	Written with precision
___	___	___	_X_	___	Math terms are defined / appropriate
___	___	___	_X_	___	The textbook uses the given definitions to develop student understanding
___	___	___	_X_	___	If the materials address topics outside of the CCSS, the publisher provides a mathematical and pedagogical justification. **(Focus)**
___	___	___	_X_	___	Materials amply feature high-quality conceptual problems and questions that can serve as fertile conversation-starters in a classroom if students are unable to answer them. (**Rigor and Balance)**
___	___	___	_X_	___	Manipulates and concrete representations such as diagrams that enhance conceptual understanding are closely connected to the written and symbolic methods to which they refer. (**Rigor and Balance)**
___	___	___	___	_X_	Methods and algorithms are general and based on principles of mathematics, not mnemonics or tricks. (**Rigor and Balance)**

Notes:

No response provided.

Part 2: The materials in basic instructional programs support comprehensive teaching of the *Common Core State Standards for Mathematics with California Additions* and include the standards for mathematical practice at each grade level or course.

The standards for mathematical practice must be taught in the context of the content standards at each grade level or course. The principles of instruction must reflect current and confirmed research. The materials must support the design of the *Common Core State Standards for Mathematics with California Additions* and be aligned to the grade level content standards and standards for mathematical practice.

Prompt: Choose five lessons at random. Check for the information above. Verify with other members of your Textbook Adoption Team.

Algebra 1

		Lesson A: 1.2
Yes	No	Where are the SMP's located? Front. Page 10 left column under CCSS
_X_	____	Are there one or two SMP's at the forefront of the lesson?
_X_	____	Are they explicitly applied in the lesson outline?
_X_	____	Is the lesson 'true' to the SMP's listed?

Notes:

No response provided

		Lesson B: 5.1
Yes	No	Where are the SMP's located? first page of the section middle to left side pg. 285, left column under CCSS
_X_	____	Are there one or two SMP's at the forefront of the lesson?
_X_	____	Are they explicitly applied in the lesson outline?
_X_	____	Is the lesson 'true' to the SMP's listed?

Notes:

No response provided.

		Lesson C: 2.3
Yes	No	Where are the SMP's located? pg. 91 left hand column under CCSS
_X_	____	Are there one or two SMP's at the forefront of the lesson?
_X_	____	Are they explicitly applied in the lesson outline?
_X_	____	Is the lesson 'true' to the SMP's listed?

Notes:

No response provided.

		Lesson D: 3.4
Yes	No	Where are the SMP's located? Beginning of the lesson under the Common Core Standards.
_X_	____	Are there one or two SMP's at the forefront of the lesson?
_X_	____	Are they explicitly applied in the lesson outline?
_X_	____	Is the lesson 'true' to the SMP's listed?

Notes:

Lesson ensures that students question whether the math makes sense.

		Lesson E: 7.1
Yes	No	Where are the SMP's located? first page of the section middle left
_X_	____	Are there one or two SMP's at the forefront of the lesson?
_X_	____	Are they explicitly applied in the lesson outline?
_X_	____	Is the lesson 'true' to the SMP's listed?

Notes:

No response provided.

Geometry

		Lesson A: 3.2
Yes	No	Where are the SMP's located? Online and in textbook
_X_	____	Are there one or two SMP's at the forefront of the lesson?
_X_	____	Are they explicitly applied in the lesson outline?
_X_	____	Is the lesson 'true' to the SMP's listed?

Notes:

No response provided.

		Lesson B: 5.5
Yes	No	Where are the SMP's located? First page of section
_X_	____	Are there one or two SMP's at the forefront of the lesson?
_X_	____	Are they explicitly applied in the lesson outline?
_X_	____	Is the lesson 'true' to the SMP's listed?

Notes:

No response provided.

		Lesson C: 2.1
Yes	No	Where are the SMP's located? Intro of chapter
_X_	____	Are there one or two SMP's at the forefront of the lesson?
_X_	____	Are they explicitly applied in the lesson outline?
_X_	____	Is the lesson 'true' to the SMP's listed?

Notes:

No response provide.

		Lesson D: 4.3
Yes	No	Where are the SMP's located? Front page of the lesson
_X_	____	Are there one or two SMP's at the forefront of the lesson?
_X_	____	Are they explicitly applied in the lesson outline?
_X_	____	Is the lesson 'true' to the SMP's listed?

Notes:

Electronic ancillary materials for skill development not robust

		Lesson E: 2.8
Yes	No	Where are the SMP's located? First page of lesson.
_X_	____	Are there one or two SMP's at the forefront of the lesson?
_X_	____	Are they explicitly applied in the lesson outline?
_X_	____	Is the lesson 'true' to the SMP's listed?

Notes:

No response provided

Algebra 2

		Lesson A: 4.1
Yes	No	Where are the SMP's located? Right hand column on first page of the lesson
_X_	____	Are there one or two SMP's at the forefront of the lesson?
____	_X_	Are they explicitly applied in the lesson outline?
____	_X_	Is the lesson 'true' to the SMP's listed?

Notes:

The Mathematical Practice listed in MP1 (make sense of problems and persevere in solving them). Throughout the lesson, the book talks about modeling and using appropriate tools.

		Lesson B: 1.2
Yes	No	Where are the SMP's located? first page, margin of lesson
_X_	____	Are there one or two SMP's at the forefront of the lesson?
____	_X_	Are they explicitly applied in the lesson outline?
____	_X_	Is the lesson 'true' to the SMP's listed?

Notes:

No response provided

		Lesson C: 7.3
Yes	No	Where are the SMP's located? First page of lesson
_X_	____	Are there one or two SMP's at the forefront of the lesson?
_X_	____	Are they explicitly applied in the lesson outline?
_X_	____	Is the lesson 'true' to the SMP's listed?

Notes:

No response provided.

		Lesson D: 10.3
Yes	No	Where are the SMP's located? First page of lesson
_X_	____	Are there one or two SMP's at the forefront of the lesson?
_X_	____	Are they explicitly applied in the lesson outline?
_X_	____	Is the lesson 'true' to the SMP's listed?

Notes:

No response provided.

		Lesson E: 12.3
Yes	No	Where are the SMP's located? First page of lesson
_X_	____	Are there one or two SMP's at the forefront of the lesson?
_X_	____	Are they explicitly applied in the lesson outline?
_X_	____	Is the lesson 'true' to the SMP's listed?

Notes:

No response provided.

Overall (Algebra 1):

Prompt: Choose a chapter. Are all eight SMP's represented sufficiently throughout the chapter?

In chapter 2, on linear equations, all mathematical practice. However, in six of the lessons only one mathematical practice is covered. A few of the standards appeared more than once, they are: eight which is seen three times, six which is seen two times and one that is seen two times.

Prompt: Choose a 2nd chapter. Are all eight SMP's represented sufficiently throughout the chapter?

In chapter three, which is on linear functions, not all the standards are covered. Standards three and five are not covered in the chapter. Two standards are covered twice and they are one and eight.

Overall (Geometry):

Prompt: Choose a chapter. Are all eight SMP's represented sufficiently throughout the chapter?

In chapter one, Tools for Geometry, not all of the standards of mathematical practices are covered. Standards one and eight are not include. Also, there is a heavy focus on on standard two, which is seen in four out of seven, and standard six, which is seen in five out of seven lessons.

Prompt: Choose a 2nd chapter. Are all eight SMP's represented sufficiently throughout the chapter?

In chapter two, Reasoning and Proofs, the use of the standards of mathematical practices seems to be very weak. Matter of fact, the first four lesson do not have any standards listed. The last four lessons only cover standards two, three and six with most of the focus being on standard three.

Overall (Algebra 2):

Prompt: Choose a chapter. Are all eight SMP's represented sufficiently throughout the chapter?

In chapter one, Equations and Inequalities, all the standards of mathematical practices are covered. However, they are only included one time.

Prompt: Choose a 2nd chapter. Are all eight SMP's represented sufficiently throughout the chapter?

In chapter eight, Rational Functions and Relationships, seven out of eight of the standards of mathematical practices are covered. Each standard is only covered one time.

Part 3: In any single grade in the kindergarten through grade eight sequences, students and teachers using the materials as designed spend the large majority of their time, approximately three-quarters, on the major work of each grade.

The major work (major clusters) of each grade is identified in the Content Emphases by Cluster documents for K–8. Note that an important **subset** of the major work in grades K–8 is the progression that leads toward Algebra I and Mathematics I. Materials give especially careful treatment to these clusters and their interconnections. Digital or online materials that allow navigation or have no fixed pacing plan are explicitly designed to ensure that students' time on task meets
this criterion.

Prompt: Using the Content Emphases by Cluster (Appendix A) http://www.achievethecore.org/content/ upload/Focus in Math 06.12.2013.pdf , choose two chapters (each a different topic or cluster and from different areas of the text) and find the following:

Algebra1

No				Yes	
1	2	3	4	5	**Chapter A: 4**
___	___	___	_X_	___	Does each grade level focus on the Major Standards for approximately 75%* of the year? **(Focus)****
___	___	___	___	_X_	Are Additional and Supporting Clusters linked back to Major Clusters? **(Coherence)**
___	___	___	___	_X_	Are learning objectives based on Cluster Headings (standards are not meant to be taught in isolation)? **(Coherence)**
___	___	___	___	_X_	Materials in grades K–8 include an ample number of single-step and multi- step contextual problems that develop the mathematics of the grade, afford opportunities for practice, and engage students in problem solving. (**Rigor and Balance)**
___	___	___	___	_X_	Problems and activities are grade-level appropriate, with a sensible tradeoff between the sophistication of the problem and the difficulty or newness of the content knowledge the student is expected to gain. (**Rigor and Balance)**

Notes:

No response provided

*the CCSSO Publisher Criteria has a footnote that says between 65% and 85% in K-2. This note of 75% can be qualified by asking, “Is there sufficient focus on the major clusters for students to understand mathematical concepts, reach fluency expectations in the standards, and apply their knowledge and procedural skills and fluency to new situations?”

**Given the particular clusters that are designated major in grade 7, the criterion for that grade is approximately two-thirds, rather than approximately three-fourths

No				Yes	
1	2	3	4	5	**Chapter B: 3**
___	___	___	_X_	___	Does each grade level focus on the Major Standards for approximately 75%* of the year? **(Focus)****
___	___	___	_X_	___	Are Additional and Supporting Clusters linked back to Major Clusters? **(Coherence)**
___	___	___	___	_X	Are learning objectives based on Cluster Headings (standards are not meant to be taught in isolation)? **(Coherence)**
___	___	___	_X_	___	Materials in grades K–8 include an ample number of single-step and multi- step contextual problems that develop the mathematics of the grade, afford opportunities for practice, and engage students in problem solving. (**Rigor and Balance)**
___	___	___	_X_	___	Problems and activities are grade-level appropriate, with a sensible tradeoff between the sophistication of the problem and the difficulty or newness of the content knowledge the student is expected to gain. (**Rigor and Balance)**

Notes:

Needing more equation involving distribution. Some of the enrichment activities are good.

Geometry

No				Yes	
1	2	3	4	5	**Chapter A: 1**
___	___	___	___	_X_	Does each grade level focus on the Major Standards for approximately 75%* of the year? **(Focus)****
___	___	___	_X_	___	Are Additional and Supporting Clusters linked back to Major Clusters? **(Coherence)**
___	___	___	_X_	___	Are learning objectives based on Cluster Headings (standards are not meant to be taught in isolation)? **(Coherence)**
___	___	___	_X_	___	Materials in grades K–8 include an ample number of single-step and multi- step contextual problems that develop the mathematics of the grade, afford opportunities for practice, and engage students in problem solving. (**Rigor and Balance)**
___	___	___	_X_	___	Problems and activities are grade-level appropriate, with a sensible tradeoff between the sophistication of the problem and the difficulty or newness of the content knowledge the student is expected to gain. (**Rigor and Balance)**

Notes:

No response provided

*the CCSSO Publisher Criteria has a footnote that says between 65% and 85% in K-2. This note of 75% can be qualified by asking, "Is there sufficient focus on the major clusters for students to understand mathematical concepts, reach fluency expectations in the standards, and apply their knowledge and procedural skills and fluency to new situations?"

**Given the particular clusters that are designated major in grade 7, the criterion for that grade is approximately two-thirds, rather than approximately three-fourths

No				Yes	
1	2	3	4	5	**Chapter B: 2**
___	___	___	_X__	___	Does each grade level focus on the Major Standards for approximately 75%* of the year? **(Focus)****
___	___	___	_X__	___	Are Additional and Supporting Clusters linked back to Major Clusters? **(Coherence)**
___	___	___	_X__	___	Are learning objectives based on Cluster Headings (standards are not meant to be taught in isolation)? **(Coherence)**
___	___	___	_X__	___	Materials in grades K–8 include an ample number of single-step and multi- step contextual problems that develop the mathematics of the grade, afford opportunities for practice, and engage students in problem solving. (**Rigor and Balance)**
___	___	___	_X__	___	Problems and activities are grade-level appropriate, with a sensible tradeoff between the sophistication of the problem and the difficulty or newness of the content knowledge the student is expected to gain. (**Rigor and Balance)**

Notes:

No response provided

Algebra 2

No				Yes	
1	2	3	4	5	**Chapter A: 5**
___	___	___	___	_X_	Does each grade level focus on the Major Standards for approximately 75%* of the year? **(Focus)****
___	___	_X_	___	___	Are Additional and Supporting Clusters linked back to Major Clusters? **(Coherence)**
___	___	_X_	___	___	Are learning objectives based on Cluster Headings (standards are not meant to be taught in isolation)? **(Coherence)**
___	___	_X_	___	___	Materials in grades K–8 include an ample number of single-step and multi- step contextual problems that develop the mathematics of the grade, afford opportunities for practice, and engage students in problem solving. (**Rigor and Balance)**
___	___	_X_	___	___	Problems and activities are grade-level appropriate, with a sensible tradeoff between the sophistication of the problem and the difficulty or newness of the content knowledge the student is expected to gain. (**Rigor and Balance)**

Notes:

This chapter does not have a driving theme. It seems mis-organized. My students are feeling quite rushed because the processes do not build: they are too scattered.

*the CCSSO Publisher Criteria has a footnote that says between 65% and 85% in K-2. This note of 75% can be qualified by asking, “Is there sufficient focus on the major clusters for students to understand mathematical concepts, reach fluency expectations in the standards, and apply their knowledge and procedural skills and fluency to new situations?”

**Given the particular clusters that are designated major in grade 7, the criterion for that grade is approximately two-thirds, rather than approximately three-fourths

No				Yes	
1	2	3	4	5	**Chapter B: 5**
___	___	___	___	_X_	Does each grade level focus on the Major Standards for approximately 75%* of the year? **(Focus)****
___	___	___	_X_	___	Are Additional and Supporting Clusters linked back to Major Clusters? **(Coherence)**
___	___	___	_X_	___	Are learning objectives based on Cluster Headings (standards are not meant to be taught in isolation)? **(Coherence)**
___	_X_	___	___	___	Materials in grades K–8 include an ample number of single-step and multi- step contextual problems that develop the mathematics of the grade, afford opportunities for practice, and engage students in problem solving. (**Rigor and Balance)**
___	_X_	___	___	___	Problems and activities are grade-level appropriate, with a sensible tradeoff between the sophistication of the problem and the difficulty or newness of the content knowledge the student is expected to gain. (**Rigor and Balance)**

Notes:

The new concepts are not thoroughly explained or developed. The student is left to intuit far too much of why the concept works. My students struggled mightily with the amount of material and the lack of clarity in explanation.

Embedded in the previous sections (1-3), keep these in mind as you continue to review the textbooks:

4. **Focus:** If the materials address topics outside of the *Common Core State Standards for Mathematics with California Additions,* the publisher will provide a mathematical and pedagogical justification.
5. **Focus and Coherence through Supporting Work: Supporting clusters do not detract from focus, but rather enhance focus and coherence simultaneously by engaging students in the major clusters of the grade.**
6. **Rigor and Balance: Materials and tools reflect the balances in the Standards and help students meet the Standards' rigorous expectations, by all of the following:**
    a. Developing students' conceptual understanding of key mathematical concepts, where called for in specific content standards or cluster headings, including connecting conceptual understanding to procedural skills.
    b. Giving attention throughout the year to individual standards that set an expectation of fluency.
    c. Allowing teachers and students using the materials as designed to spend sufficient time working with engaging applications, without losing focus on the major work of each grade.

Part 4: Consistent Progressions: Materials are consistent with the progressions in the Standards

Prompt: Analyzing the textbook as a whole and using the Progressions Documents found a http://commoncore.fcoe.org/subject/mathematics find the following and rate from 1 (low) to 5(high) :

Algebra 1

Chapter A: (Rate from 1-5)

_5_ The Standard cluster is seen throughout the chapter/unit/theme (if it is an additional or supporting cluster, it references other major clusters).

_4_ Each chapter/unit offers depth of coverage (instead of moving on to standards for the following year(s))

_4_ The basic model for grade-to-grade progression involves students making tangible progress during each given grade, as opposed to substantially reviewing then marginally extending from previous grades.

_4_ Grade-level work begins during the first two weeks of instruction, rather than being deferred until later as previous years' content is reviewed. Remediation may be necessary, particularly during transition years, and resources for remediation may be provided, but review is clearly identified as such to the teacher.

_4_ Digital and online materials allow students and/or teachers to navigate content across grade levels promote the Standards' coherence by tracking the structure and progressions in the Standards. For example, such materials might link problems and concepts so that teachers and students can browse a progression.

_4_ Materials/ideas available for students who are "ready for more" are available. Experiences that can provide problems that take grade-level work in deeper directions, not just exposed to later grades' topics.

Relating grade level concepts explicitly to prior knowledge from earlier grades:

__5__ The materials are designed so that prior knowledge becomes reorganized and extended to accommodate the new knowledge.

__5__ Grade-level problems in the materials often involve application of knowledge learned in earlier grades. Although students may well have learned this earlier content, they have not learned how it extends to new mathematical situations and applications.

__4__ Materials make extensions of prior knowledge explicit.

__4__ Cluster headings in the Standards sometimes signal key moments where reorganizing and extending previous knowledge is important in order to accommodate new knowledge (e.g., see the cluster headings that use the phrase "Apply and extend previous understanding").

Chapter B: (Rate from 1-5)

__4__ The Standard cluster is seen throughout the chapter/unit/theme (if it is an additional or supporting cluster, it references other major clusters).

__4__ Each chapter/unit offers depth of coverage (instead of moving on to standards for the following year(s))

__4__ The basic model for grade-to-grade progression involves students making tangible progress during each given grade, as opposed to substantially reviewing then marginally extending from previous grades.

__4__ Grade-level work begins during the first two weeks of instruction, rather than being deferred until later as previous years' content is reviewed. Remediation may be necessary, particularly during transition years, and resources for remediation may be provided, but review is clearly identified as such to the teacher.

__4__ Digital and online materials allow students and/or teachers to navigate content across grade levels promote the Standards' coherence by tracking the structure and progressions in the Standards. For example, such materials might link problems and concepts so that teachers and students can browse a progression.

__4__Materials/ideas available for students who are "ready for more" are available. Experiences that can provide problems that take grade-level work in deeper directions, not just exposed to later grades' topics.

Relating grade level concepts explicitly to prior knowledge from earlier grades:

__4__The materials are designed so that prior knowledge becomes reorganized and extended to accommodate the new knowledge.

__4__Grade-level problems in the materials often involve application of knowledge learned in earlier grades. Although students may well have learned this earlier content, they have not learned how it extends to new mathematical situations and applications.

__4__Materials make extensions of prior knowledge explicit.

__4__Cluster headings in the Standards sometimes signal key moments where reorganizing and extending previous knowledge is important in order to accommodate new knowledge (e.g., see the cluster headings that use the phrase "Apply and extend previous understanding").

Geometry

Chapter A: (Rate from 1-5)

__5__ The Standard cluster is seen throughout the chapter/unit/theme (if it is an additional or supporting cluster, it references other major clusters).

__4__ Each chapter/unit offers depth of coverage (instead of moving on to standards for the following year(s))

__4__ The basic model for grade-to-grade progression involves students making tangible progress during each given grade, as opposed to substantially reviewing then marginally extending from previous grades.

__4__ Grade-level work begins during the first two weeks of instruction, rather than being deferred until later as previous years' content is reviewed. Remediation may be necessary, particularly during transition years, and resources for remediation may be provided, but review is clearly identified as such to the teacher.

__2__ Digital and online materials allow students and/or teachers to navigate content across grade levels promote the Standards' coherence by tracking the structure and progressions in the Standards. For example, such materials might link problems and concepts so that teachers and students can browse a progression.

__3__ Materials/ideas available for students who are "ready for more" are available. Experiences that can provide problems that take grade-level work in deeper directions, not just exposed to later grades' topics.

Relating grade level concepts explicitly to prior knowledge from earlier grades:

__4__ The materials are designed so that prior knowledge becomes reorganized and extended to accommodate the new knowledge.

__4__ Grade-level problems in the materials often involve application of knowledge learned in earlier grades. Although students may well have learned this earlier content, they have not learned how it extends to new mathematical situations and applications.

__4__Materials make extensions of prior knowledge explicit.

__4__Cluster headings in the Standards sometimes signal key moments where reorganizing and extending previous knowledge is important in order to accommodate new knowledge (e.g., see the cluster headings that use the phrase "Apply and extend previous understanding").

Chapter B: (Rate from 1-5)

__4__The Standard cluster is seen throughout the chapter/unit/theme (if it is an additional or supporting cluster, it references other major clusters).

__4__Each chapter/unit offers depth of coverage (instead of moving on to standards for the following year(s))

__4__The basic model for grade-to-grade progression involves students making tangible progress during each given grade, as opposed to substantially reviewing then marginally extending from previous grades.

__4__Grade-level work begins during the first two weeks of instruction, rather than being deferred until later as previous years' content is reviewed. Remediation may be necessary, particularly during transition years, and resources for remediation may be provided, but review is clearly identified as such to the teacher.

__2__Digital and online materials allow students and/or teachers to navigate content across grade levels promote the Standards' coherence by tracking the structure and progressions in the Standards. For example, such materials might link problems and concepts so that teachers and students can browse a progression.

__4__Materials/ideas available for students who are "ready for more" are available. Experiences that can provide problems that take grade-level work in deeper directions, not just exposed to later grades' topics.

Relating grade level concepts explicitly to prior knowledge from earlier grades:

__4__The materials are designed so that prior knowledge becomes reorganized and extended to accommodate the new knowledge.

_4_ Grade-level problems in the materials often involve application of knowledge learned in earlier grades. Although students may well have learned this earlier content, they have not learned how it extends to new mathematical situations and applications.

_4_ Materials make extensions of prior knowledge explicit.

_4_ Cluster headings in the Standards sometimes signal key moments where reorganizing and extending previous knowledge is important in order to accommodate new knowledge (e.g., see the cluster headings that use the phrase "Apply and extend previous understanding").

Algebra 2

Chapter A: (Rate from 1-5)

__4__The Standard cluster is seen throughout the chapter/unit/theme (if it is an additional or supporting cluster, it references other major clusters).

__3__Each chapter/unit offers depth of coverage (instead of moving on to standards for the following year(s))

__4__The basic model for grade-to-grade progression involves students making tangible progress during each given grade, as opposed to substantially reviewing then marginally extending from previous grades.

__5__Grade-level work begins during the first two weeks of instruction, rather than being deferred until later as previous years' content is reviewed. Remediation may be necessary, particularly during transition years, and resources for remediation may be provided, but review is clearly identified as such to the teacher.

__3__Digital and online materials allow students and/or teachers to navigate content across grade levels promote the Standards' coherence by tracking the structure and progressions in the Standards. For example, such materials might link problems and concepts so that teachers and students can browse a progression.

__3__Materials/ideas available for students who are "ready for more" are available. Experiences that can provide problems that take grade-level work in deeper directions, not just exposed to later grades' topics.

Relating grade level concepts explicitly to prior knowledge from earlier grades:

__2__The materials are designed so that prior knowledge becomes reorganized and extended to accommodate the new knowledge.

__3__Grade-level problems in the materials often involve application of knowledge learned in earlier grades. Although students may well have learned this earlier content, they have not learned how it extends to new mathematical situations and applications.

__2__Materials make extensions of prior knowledge explicit.

__1__Cluster headings in the Standards sometimes signal key moments where reorganizing and extending previous knowledge is important in order to accommodate new knowledge (e.g., see the cluster headings that use the phrase "Apply and extend previous understanding").

Chapter B: (Rate from 1-5)

__4__The Standard cluster is seen throughout the chapter/unit/theme (if it is an additional or supporting cluster, it references other major clusters).

__3__Each chapter/unit offers depth of coverage (instead of moving on to standards for the following year(s))

__3__The basic model for grade-to-grade progression involves students making tangible progress during each given grade, as opposed to substantially reviewing then marginally extending from previous grades.

__4__Grade-level work begins during the first two weeks of instruction, rather than being deferred until later as previous years' content is reviewed. Remediation may be necessary, particularly during transition years, and resources for remediation may be provided, but review is clearly identified as such to the teacher.

__1__Digital and online materials allow students and/or teachers to navigate content across grade levels promote the Standards' coherence by tracking the structure and progressions in the Standards. For example, such materials might link problems and concepts so that teachers and students can browse a progression.

__3__Materials/ideas available for students who are "ready for more" are available. Experiences that can provide problems that take grade-level work in deeper directions, not just exposed to later grades' topics.

Relating grade level concepts explicitly to prior knowledge from earlier grades:

__2__The materials are designed so that prior knowledge becomes reorganized and extended to accommodate the new knowledge.

_3_ Grade-level problems in the materials often involve application of knowledge learned in earlier grades. Although students may well have learned this earlier content, they have not learned how it extends to new mathematical situations and applications.

__1__ Materials make extensions of prior knowledge explicit.

_2__ Cluster headings in the Standards sometimes signal key moments where reorganizing and extending previous knowledge is important in order to accommodate new knowledge (e.g., see the cluster headings that use the phrase “Apply and extend previous understanding”).

Part 5: Coherent Connections: Materials foster coherence through connections at a single grade, where appropriate and where required by the Standards, by (all of the following):

Prompt: Choose two chapters from different areas of the textbook. Review the chapters by following these questions. Find the following (and mark with an "X" if found):

Algebra 1

Chapter A:

__Y__Lessons include learning objectives that are visibly shaped by CCSSM cluster headings, with meaningful consequences for the associated problems and activities.

__Y__Materials do not simply treat the Standards as a sum of individual content standards and individual practice standards.

__Y__Lessons include problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a grade, in cases where these connections are natural and important. (Not everything in the standards is naturally well connected or needs to be connected)

Chapter B:

__Y__Lessons include learning objectives that are visibly shaped by CCSSM cluster headings, with meaningful consequences for the associated problems and activities.

__Y__Materials do not simply treat the Standards as a sum of individual content standards and individual practice standards.

__Y__Lessons include problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a grade, in cases where these connections are natural and important. (Not everything in the standards is naturally well connected or needs to be connected)

Notes:

No response provided.

Geometry

Chapter A:

__X__Lessons include learning objectives that are visibly shaped by CCSSM cluster headings, with meaningful consequences for the associated problems and activities.

__X__Materials do not simply treat the Standards as a sum of individual content standards and individual practice standards.

__X__Lessons include problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a grade, in cases where these connections are natural and important. (Not everything in the standards is naturally well connected or needs to be connected)

Chapter B:

__X__Lessons include learning objectives that are visibly shaped by CCSSM cluster headings, with meaningful consequences for the associated problems and activities.

__X__Materials do not simply treat the Standards as a sum of individual content standards and individual practice standards.

__X__Lessons include problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a grade, in cases where these connections are natural and important. (Not everything in the standards is naturally well connected or needs to be connected)

Notes:

No response provided.

Algebra 2

Chapter A:

___Lessons include learning objectives that are visibly shaped by CCSSM cluster headings, with meaningful consequences for the associated problems and activities.

_X__Materials do not simply treat the Standards as a sum of individual content standards and individual practice standards.

___Lessons include problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a grade, in cases where these connections are natural and important. (Not everything in the standards is naturally well connected or needs to be connected)

Chapter B:

___Lessons include learning objectives that are visibly shaped by CCSSM cluster headings, with meaningful consequences for the associated problems and activities.

_X__Materials do not simply treat the Standards as a sum of individual content standards and individual practice standards.

___Lessons include problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a grade, in cases where these connections are natural and important. (Not everything in the standards is naturally well connected or needs to be connected)

Notes:

The more I work with this book, the more I become aware that it is not a student friendly book. Chapter B had a lot of ideas but no focus as to why students would want to know. It felt like disconnected and poorly explained concepts. When I told my students that we would be switching from McGraw-Hill back to Holt for the last two weeks of the semester, there were collective sighs of relief in each class period.

Prompt: Review the textbook in general by following these questions:

A. Over the course of any given year of instruction, each mathematical practice standard is meaningfully present in the form of activities or problems that stimulate students to develop the habits of mind described in the practice standards:

The mathematical practices are present. Whether they are meaningful is up to how the teacher presents them. Some activities that are meant to develop the mathematical practices; however, my students and I did not feel like they were well crafted.

B. Materials include teacher-directed materials that explain the role of the practice standards in the classroom and in students' mathematical development:

Yes, there are sections in each lesson in how to discuss and emphasize the mathematical practices. The beginning of the teacher edition as well as the pre-chapter teacher material gives ideas on how to implement the practice standards. From the students perspective, it may be hard for them to read and be able to understand the lesson on their own.

C. Content and practice standards are not connected mechanistically or randomly, but instead support rigor, focus and coherence:

The text supports rigor, focus, and coherence. However, content and practice standards are supported by the examples, but are not increasing the level of rigor. It has complex math ideas, but it does not present them in an order that supports student learning. It is choppy. My students really struggled with the jumps and gaps in the textbook. These chops and gaps were even evident within one lesson.

D. Students using the materials as designed build their perseverance in grade-level-appropriate ways by occasionally solving problems that require them to persevere to a solution beyond the point when they would like to give up:

Yes, the text definitely has problems like these. My issue is that many of these problems require connections that are many zone of proximal development beyond the student's current level.

E. Lessons in the textbook reflect the verbs (DOK) written in the CCSS.

Yes, but this is still the responsibility of the teacher to improve the student's depth of knowledge.

F. Materials provide sufficient opportunities for students to reason mathematically in independent thinking and express reasoning through classroom discussion and written work:

Yes. Most of the book is designed for direct instruction and practice.

G. Reasoning is not confined to optional or avoidable sections of the materials but is inevitable when using the materials as designed. Materials do not approach reasoning as a generalized imperative, but instead create opportunities for students to reason *about* key mathematics detailed in the content standards for the grade.

Somewhat, yes, there are word problems and real life problem/scenarios that force the students to think through a problem.

H. Teachers and students using the materials as designed spend classroom time communicating reasoning (by constructing viable arguments and explanations and critiquing those of others' concerning key grade-level mathematics).

Not really, that is more a function of the collaboration that the teacher puts into his/her classroom.

I. Materials provide examples of student explanations and arguments (e.g., fictitious student characters might be portrayed).

Yes.

J. Materials attend thoroughly to those places in the content standards that explicitly set expectations for multi-step problems; multi-step problems are not scarce in the materials.

Yes.

K. Materials and tools address the development of mathematical and academic language associated with the standards. The language of argument, problem solving and mathematical explanations are taught rather than assumed.

Yes.

End of Category 1: Universal Access and Instructional Strategies (from a Mathematics Content/Alignment with the Standards point of view)

Two categories that should be threaded throughout the textbook material are **Universal Access and Instructional Strategies.** After reviewing the materials at this level, review and discuss your observations regarding these two areas:

Universal Access can be viewed through RtI, Differentiated Instruction, Multi-Tier Systems of Support (MTSS), Universal Design for Learning (UDL), and Equity and Access activities.

1. Universal Access was evident in the following ways:

   Students have step by step video tutorial on homework, mini lesson, animations, personal tutor, self-check quiz, leveled worksheets. ConnectEd offers media/tutoring for them if they had internet

2. Universal Access is clearly applied in the following ways:

   McGraw Hill has foldable activities for an interactive notebook and during homework students can see example of problems that they did wrong.

3. Universal Access is supported by these TE pages and ancillary materials:

   In the chapter planner of TE, you can see how universal access being used in media, connectEd, beginning of chapter. There is a "differentiated instruction" suggestion in each lesson. There are ancillary materials labeled for ELL but I do not feel that they do anything to actually support ELLs.

Instructional Strategies are not prescribed in the mathematics framework, but outlined for the benefit of building a teacher's repertoire. How were the following models offered throughout the text and are the instructional strategies appropriate for the learning objective(s)?:

1. 5E Model: (1) Engage, (2) Explore, (3) Explain, (d) Elaborate, and (e) Evaluate (Interactive Strategy)

   The book does very little for the Interactive Strategy portion of the 5E model. Most involve (2)Explore and (e) Evaluate

2. The Three-Phase Model (Explicit Strategy)

   This explicit strategy are addressed throughout the chapter and are appropriate to the objectives.

3. Concept Attainment Model (Interactive Strategy)

   This portion is addressed very poorly.

4. Cooperative Learning Model (Implicit Strategy)

   This portion is addressed very poorly. Resources can be found through connectEd.

5. Cognitively Guided Instruction (Implicit Strategy)

   Some parts of the textbook has interactive media and step-by-step videos.

6. Problem-Based Learning (Interactive Strategy)

   Project based and performance task available for every chapter.

Note: for samples and explanations
http://www.cde.ca.gov/ci/ma/cf/documents/aug2013instructstrat.pdf

Category 2: Program Organization
This section requires the user(s) to view the textbook material as a whole and not piece by piece—be sure to use the notes section to record your thoughts and evidence.

1. A list of *Common Core State Standards for Mathematics with California Additions* is included in the teacher's guide together with page number citations or other references that demonstrate alignment with the content standards and standards for mathematical practice. All standards must be listed in their entirety with their cluster heading included.

Yes__X_ No___

NOTES:

They are the first few pages in the teacher's edition.

2. Chapters and/or units are structured around Standard Clusters—that is, Math Clusters are not broken apart into different chapters or units within the student and teacher edition.

Yes_X__ No___

NOTES:

Many of the standards are very spread out. For example, the Binomial theorem is taught in chapter on sequences and series even though it is covered by a standard about polynomial operations.

3. Intervention components, if included, are designed to support students' progress in mathematics and develop fluency. Intervention materials should provide targeted instruction on standards from previous grade levels and develop student learning of the standards for mathematical practice.

Yes___ No_X__

NOTES:

Intervention seemed to be based on grade level and not on previous grade levels.

4. Acceleration components, if included, are designed to support students' progress beyond grade-level standards in mathematics. Acceleration materials should provide instruction targeted toward readiness for higher mathematics at the middle school level. **Note**: acceleration materials for students should provide problems that take grade-level work in deeper directions, not just exposed to later grades' topics.

Yes_X__ No___

NOTES:

Some of the enrichment topics are very well designed. Others are simply game like, but don't seem to extend or deepen any understanding.

5. Teacher and student materials contain an overview of the chapters, clearly identify the mathematical concepts, and include tables of contents, indexes, and glossaries that contain important mathematical terms.

Yes___ No__X_

NOTES:

Textbook might be too challenging for the Algebra 1A and 1B programs.

6. Support materials are an integral part of the instructional program and are clearly aligned with the *Common Core State Standards for Mathematics with California Additions.*

Yes___ No_X__

What types of support material are available:

ConnectEd provides practice that scores their homework. ConnectEd provides teacher with a powerpoint, test, quizzes, and additional worksheets. What used to be in workbooks, printed resources are now online.

NOTES:

Worksheets are very basic and all seem to be procedural in nature.

7. The grade-level content standards and the standards for mathematical practice are explicitly stated in both the teacher and the student editions.

Yes__X_ No___

EXAMPLES:

Yes. The mathematical practices are labeled, but it does not always feel like the author really buys what they are labeling.

Notes:

No response provided

End of Category 2: Universal Access and Instructional Strategies
(from a Program organization point of view)

After reviewing the book for program organization, add in observations regarding these two areas:

Universal Access can be viewed through RtI, Differentiated Instruction, Multi-Tier Systems of Support (MTSS), Universal Design for Learning (UDL), and Equity and Access activities.

1. Universal Access was evident in the following ways:

   Universal access was poorly represented. Teacher makes the content universal for all students, not the textbook. However, there is several vocabulary resources on ConnectED.

2. Universal Access is clearly applied in the following ways:

   Various teacher strategies.

3. Universal Access is supported by these TE pages and ancillary materials:

   ConnectED and Book.

Instructional Strategies are not prescribed in the mathematics framework, but outlined for the benefit of building a teacher's repertoire. How were the following models offered throughout the text and are the instructional strategies appropriate for the learning objective(s)?:

1. 5E Model: (1) Engage, (2) Explore, (3) Explain, (d) Elaborate, and (e) Evaluate (Interactive Strategy)

   They are, but my consideration is students use. Provide practice problems for them to meet learning objectives, but they chunk it too much.

2. The Three-Phase Model (Explicit Strategy)

   This is seen in the modeling examples.

3. Concept Attainment Model (Interactive Strategy)

   Yes they are. They may need further clarification for student use and comprehension. For example, media thru student center in connectEd

4. Cooperative Learning Model (Implicit Strategy)

   Yes they are.

5. Cognitively Guided Instruction (Implicit Strategy)

   Yes they are.

6. Problem-Based Learning (Interactive Strategy)

   At the end of chapters.

Note: for samples and explanations,
http://www.cde.ca.gov/ci/ma/cf/documents/aug2013instructstrat.pdf

Category 3: Assessment (General)

1. The textbook materials include a variety of assessment types needed for formative assessment. Some of these could include (but is not limited to) graphic organizers, student observation, student interviews, journals and learning logs, exit ticket activities, mathematics portfolios, self- and peer- evaluations, short tests and quizzes, and performance tasks.

Yes__X_ No___

NOTES:

The book does not feel organized for high school students. It feels more like a college book. There are short tests and quizzes embedded in the text. However, the graphic organizers and journaling opportunities are sorely lacking.

2. Summative assessments frequently come in the form of chapter or unit tests, weekly quizzes, end-of-term tests, or diagnostic tests.

Yes_X__ No___

NOTES:

This is seen in chapter test, end-of term tests, multiple quizzes available.

3. The assessments are designed to monitor student progress toward meeting the content and mathematical practice standards.

Yes_X__ No___

NOTES:

They are typical math book tests.

4. The assessments are designed to assess all three aspects of rigor: conceptual understanding, procedural skill and fluency, and applications.

Yes_X__ No___

NOTES:

The tests are mostly procedural skill and fluency with a bit of conceptual understanding.

5. The assessments are designed to provide summative evaluations of individual student achievement.

Yes_X__ No___

NOTES:

Works like eadms, but doesn't analyze like eadms.

6. The assessments are designed to provide multiple methods of assessing what students know and are able to do, such as selected response, constructed response, real world problems, performance tasks, and open-ended questions.

Yes_X__ No___

NOTES:

Although their are selected response and constructed response problems available in the test bank, they are very difficult to implement.

7. The assessments are designed to assist the teacher in keeping parents and students informed about student progress.

Yes_X__ No___

NOTES:

They are typical assessments.

8. Assessments that ask for variety in what students produce, answers and solutions, arguments and explanations, diagrams, mathematical models. Note: all related back to the SMP's

Yes_X__ No___

NOTES:

Mostly procedural tests

9. Assessment tools for grades six through eight help to determine student readiness for Algebra 1 and Mathematics 1.

Yes___ No_X__

NOTES:

No response provided

10. Acceleration or Compression aspects of mathematics programs include an initial assessment to identify areas of strengths and weaknesses, formative assessments to demonstrate student progress to- ward exceeding grade-level standards, and a summative assessment to determine student preparedness for above grade-level work.

Yes_X__ No____

NOTES:

They are present. But, they are not very good.

Category 3: Assessment (SBAC)

The following is from the Content Specifications for the Summative assessment of the CCSS for Mathematics: The SMARTER Balanced Assessments are based on "Claims". In terms of SBAC, Claims are the broad statements of the assessment system's learning outcomes, each of which requires evidence that articulates the types of data/observations that will support interpretations of competence towards achievement of the claims. A first purpose of this document is to identify the critical and relevant claims that will identify the set of knowledge and skills that is important to measure for the task at hand (Pellegrino, Chudowsky, and Glaser, 2001), which in this case are the learning outcomes for the CCSS for mathematics.

This section requires the user(s) to view the textbook material as a whole and not piece by piece—be sure to use the notes section to record your thoughts and evidence.

Overall Claim for Grades 3–8
"Students can demonstrate progress toward college and career readiness in mathematics."

Overall Claim for Grade 11
"Students can demonstrate college and career readiness in mathematics."

Claim #1 – Concepts & Procedures
"Students can explain and apply mathematical concepts and interpret and carry out mathematical procedures with precision and fluency."

Claim #2 – Problem Solving
"Students can solve a range of complex, well-posed problems in pure and applied mathematics, making productive use of knowledge and problem solving strategies."

Claim #3 – Communicating Reasoning
"Students can clearly and precisely construct viable arguments to support their own reasoning and to critique the reasoning of others."

Claim #4 – Modeling and Data Analysis
"Students can analyze complex, real-world scenarios and can construct and use mathematical models to interpret and solve problems."

*Due to the variance in textbook layout and design, this section requires the user(s) to analyze text- books in a nonlinear manner. Use lessons, chapter assessments, unit assessments, assessment booklets etc. As you review through the lens of SBAC assessment.

Claim #1: Does the material contain lessons that teach mathematical concepts?

Prompt: Choose five lessons (each based on a different standard or cluster of standards). Check for the information above. Verify with other members of your Textbook Adoption Team (mark with an "X" if found):

Note: For this prompt, do not limit yourself to the Teacher Edition. Evaluate ancillary materials such as assessment workbooks, assessment masters, alternate assessments, etc.

Algebra 1

1	2	3	4	5	**Lesson 1-5**
___	___	___	_X_	___	Students are given the opportunity to explain and apply mathematical concepts.
___	___	___	_X_	___	The textbook contains lessons that are purely conct building that scaffold to lessons for computation.
___	___	___	_X_	___	Assessment questions are written with precision
___	___	___	___	_X_	Math terms are defined/appropriate
___	___	___	___	_X_	The concept is taught, not merely defined.

Notes:

Standard Test Practice allows for short response. Some had Error Analysis. Some had Open Ended and writing.

1-2, 2-5, 3-1, 4-2, and 5-4

Geometry

1	2	3	4	5	**Lesson 1-5**
___	___	_X_	___	___	Students are given the opportunity to explain and apply mathematical concepts.
___	___	_X_	___	___	The textbook contains lessons that are purely conct building that scaffold to lessons for computation.
___	___	___	_X_	___	Assessment questions are written with precision
___	___	___	_X_	___	Math terms are defined/appropriate
___	___	___	_X_	___	The concept is taught, not merely defined.

Notes:

No response provided

Algebra 2

1	2	3	4	5	**Lesson 1-5**
___	_X_	___	___	___	Students are given the opportunity to explain and apply mathematical concepts.
___	_X_	___	___	___	The textbook contains lessons that are purely conct building that scaffold to lessons for computation.
___	___	___	_X_	___	Assessment questions are written with precision
___	_X_	___	___	___	Math terms are defined/appropriate
___	_X_	___	___	___	The concept is taught, not merely defined.

Notes:

The book is not student friendly. The following was used for evaluation: 3.1, 4.4, 5.4, 7.3, 9.4

Claim #2: Does the textbook material contain problems that make productive use of knowledge and problems solving strategies?

Start by reviewing the SBAC sample items found at
http://commoncore.fcoe.org/subject/mathematics
Prompt: Choose five lessons (each based on a different standard or cluster of standards). Compare the assessment questions to the SBAC sample items. Check for the information above. Verify with other members of your Textbook Adoption Team.

Note: For this prompt, do not limit yourself to the Teacher Edition. Look in ancillary materials such as assessment workbooks, assessment masters, alternate assessments, etc.

Algebra 1

1	2	3	4	5	**Lesson 1-5**
___	___	___	_X	___	Students are given well-posed(beyond basic thinking) problems
___	___	___	_X_	___	Students are given problems that require problem-solving strategies
___	___	___	___	_X_	There is a range of complexity offered in the materials
___	___	___	___	_X_	Problem solving is scaffold, but not explicit (requiring student perseverance)
___	___	___	_X_	___	Problem solving is not relegated to one or two lessons per unit/ chapter, but throughout the entire textbook

Be cautious of materials that use word problems as problem-solving. Often the word-problem is simply a computational problem placed in a context. True problem-solving requires a student to wonder and attempt with more than a reliance on the newly acquired skill.

Notes:

ConnectED offers worksheets to cover the above.

1-2, 2-5, 3-1, 4-2, and 5-4

Geometry

1	2	3	4	5	**Lesson 1-5**
___	___	___	_X	___	Students are given well-posed(beyond basic thinking) problems
___	___	___	_X_	___	Students are given problems that require problem-solving strategies
___	___	___	___	_X_	There is a range of complexity offered in the materials
___	___	___	_X	___	Problem solving is scaffold, but not explicit (requiring student perseverance)
___	___	___	_X_	___	Problem solving is not relegated to one or two lessons per unit/ chapter, but throughout the entire textbook

Be cautious of materials that use word problems as problem-solving. Often the word-problem is simply a computational problem placed in a context. True problem-solving requires a student to wonder and attempt with more than a reliance on the newly acquired skill.

Notes:

No response provided.

Algebra 2

1	2	3	4	5	**Lesson 1-5**
___	___	_X_	___	___	Students are given well-posed(beyond basic thinking) problems
___	___	_X_	___	___	Students are given problems that require problem-solving strategies
___	___	___	_X_	___	There is a range of complexity offered in the materials
___	_X_	___	___	___	Problem solving is scaffold, but not explicit (requiring student perseverance)
___	___	___	_X_	___	Problem solving is not relegated to one or two lessons per unit/ chapter, but throughout the entire textbook

Be cautious of materials that use word problems as problem-solving. Often the word-problem is simply a computational problem placed in a context. True problem-solving requires a student to wonder and attempt with more than a reliance on the newly acquired skill.

Notes:

The problems are not well scaffolded. They are either copies of the example or WELL beyond what was taught in the lesson. I do not find evidence of scaffolding.

3.1, 4.4, 5.4, 7.3, 9.4

Claim #3: Does the textbook material offer students the opportunity to precisely construct viable arguments to support their own reasoning and to critique the reasoning of others?

Start by reviewing the SBAC sample items found at
http://commoncore.fcoe.org/subject/mathematics

Prompt: Choose five lessons (each based on a different standard or cluster of standards). Compare the assessment questions to the SBAC sample items. Check for the information above. Verify with other members of your Textbook Adoption Team.

Note: For this prompt, do not limit yourself to the Teacher Edition. Look in ancillary materials such as assessment workbooks, assessment masters, alternate assessments, etc.

Algebra 1

1	2	3	4	5	**Lesson 1-5**
___	___	___	_X_	___	Students are given problems that are open-ended and require an explanation.
___	___	___	_X_	___	Available lessons scaffold on each other so that students learn about creating a viable argument.
___	___	___	_X_	___	Materials contain assessments that require a precise answer and precise explanation
___	___	_X_	___	___	Students are given the opportunity to critique the reasoning of others.
___	___	___	___	_X_	Students are given the opportunity to critique their own reasoning

Notes:

ConnectED allows us to assign homework and it grades it as well as lets the students see the rationales, score, check what they got wrong.

1-5, 2-5, 3-5, 4-5, and 5-5

Geometry

1	2	3	4	5	**Lesson 1-5**
___	___	___	_X_	___	Students are given problems that are open-ended and require an explanation.
___	___	_X_	___	___	Available lessons scaffold on each other so that students learn about creating a viable argument.
___	___	_X_	___	___	Materials contain assessments that require a precise answer and precise explanation
___	___	_X_	___	___	Students are given the opportunity to critique the reasoning of others.
___	___	___	_X_	___	Students are given the opportunity to critique their own reasoning

Notes:

No response provided.

Algebra 2

1	2	3	4	5	**Lesson 1-5**
___	___	_X_	___	___	Students are given problems that are open-ended and require an explanation.
___	_X_	___	___	___	Available lessons scaffold on each other so that students learn about creating a viable argument.
___	_X_	___	___	___	Materials contain assessments that require a precise answer and precise explanation
___	___	_X_	___	___	Students are given the opportunity to critique the reasoning of others.
___	_X_	___	___	___	Students are given the opportunity to critique their own reasoning

Notes:

Each lesson contains Higher Order Thinking Problems (H.O.T) which offer some opportunity to explain and critique the reasoning and/or work of fictional students. In my opinion, the lessons themselves are not organized well for direct instruction or for investigative learning methods.

3.1, 4.4, 5.4, 7.3, 9.4

Claim #4: Does the textbook material offer students the opportunity to analyze complex, real-world scenarios? Is the student offered the opportunity to develop a mathematical model to interpret and solve problems?

Start by reviewing the SBAC sample items found at http://commoncore.fcoe.org/subject/mathematics

Prompt: Choose five lessons (each based on a different standard or cluster of standards). Compare the assessment questions to the SBAC sample items. Also review the SBAC performance task specifications to check for complexity. Check for the information above. Verify with other members of your Textbook Adoption Team.

Note: For this prompt, do not limit yourself to the Teacher Edition. Look in ancillary materials such as assessment workbooks, assessment masters, alternate assessments, etc.

Algebra 1

1	2	3	4	5	**Lesson 1-5**
___	___	___	___	_X_	Students are given problems that are open-ended multi-step.
___	___	___	_X_	___	Lessons reference real-world (student) scenarios (Math Practice #4).
___	___	___	_X_	___	Materials contain lessons and assessments that lead to analysis of complex (grade level appropriate) situations.
___	___	___	_X_	___	Students are given the opportunity develop a "plan of action" to solve a problem.
___	___	_X_	___	___	Students are given the opportunity work as individuals and in groups to solve problems

Notes:

ConnectEd

1-5, 2-5, 3-5, 4-5, and 5-5

Geometry

1	2	3	4	5	**Lesson 1-5**
___	___	___	_X_	___	Students are given problems that are open-ended multi-step.
___	___	___	_X_	___	Lessons reference real-world (student) scenarios (Math Practice #4).
___	___	_X_	___	___	Materials contain lessons and assessments that lead to analysis of complex (grade level appropriate) situations.
___	___	_X_	___	___	Students are given the opportunity develop a "plan of action" to solve a problem.
___	___	_X_	___	___	Students are given the opportunity work as individuals and in groups to solve problems

Notes:

No response provided.

Algebra 2

1	2	3	4	5	**Lesson 1-5**
___	___	_X_	___	___	Students are given problems that are open-ended multi-step.
___	___	_X_	___	___	Lessons reference real-world (student) scenarios (Math Practice #4).
___	_X_	___	___	___	Materials contain lessons and assessments that lead to analysis of complex (grade level appropriate) situations.
___	_X_	___	___	___	Students are given the opportunity develop a "plan of action" to solve a problem.
___	___	_X_	___	___	Students are given the opportunity work as individuals and in groups to solve problems

Notes:

The TE makes some suggestions about how to do group work occasionally, but it is not necessary nor an emphasis of the lessons.

3.1, 4.4, 5.4, 7.3, 9.4

Technology Enhanced items

Start by reviewing the SBAC technology enhanced sample items

Prompt: Looking at what the publisher has available electronically; compare the assessment questions to the SBAC sample items.Check for the information above. Verify with other members of your Textbook Adoption Team.

Algebra 1

1	2	3	4	5	**Lesson 1-5**
___	___	___	___	_X_	Electronic materials are available for teacher and student use.
___	___	___	_X_	___	Electronic resources are not limited to CD's and DVD's, but include online resources (online materials can be updated while CD's and DVD's are a one-time creation).
___	_X_	___	___	___	Electronic materials are aligned to a similar format to SBAC.
___	___	_X_	___	___	Technology enhanced items are written to groups and/or clusters of standards, not just one.
___	___	_X_	___	___	Electronic materials are accessible and easy to use.

Notes:

Takes some navigating and students assignments are always under due later even when they complete it.

Geometry

1	2	3	4	5	**Lesson 1-5**
___	___	___	___	_X_	Electronic materials are available for teacher and student use.
___	___	___	___	_X_	Electronic resources are not limited to CD's and DVD's, but include online resources (online materials can be updated while CD's and DVD's are a one-time creation).
___	_X_	___	___	___	Electronic materials are aligned to a similar format to SBAC.
___	___	_X_	___	___	Technology enhanced items are written to groups and/or clusters of standards, not just one.
___	_X_	___	___	___	Electronic materials are accessible and easy to use.

Notes:

No response provided.

Algebra 2

1	2	3	4	5	**Lesson 1-5**
___	___	___	___	_X_	Electronic materials are available for teacher and student use.
___	___	___	___	_X_	Electronic resources are not limited to CD's and DVD's, but include online resources (online materials can be updated while CD's and DVD's are a one-time creation).
___	_X_	___	___	___	Electronic materials are aligned to a similar format to SBAC.
___	_X_	___	___	___	Technology enhanced items are written to groups and/or clusters of standards, not just one.
_X_	___	___	___	___	Electronic materials are accessible and easy to use.

Notes:

The test generator and testing bank is an absolute mess! This poorly designed feature is enough to make a decision against adopting this book.

End of Category 3: Universal Access and Instructional Strategies
(from an assessment point of view)

After reviewing the book for Assessment, add in your observations regarding these three areas:

Universal Access can be viewed through RtI, Differentiated Instruction, Multi-Tier Systems of Support (MTSS), Universal Design for Learning (UDL), and Equity and Access activities.

1. Universal Access was evident in the following ways:

   There is no universal access. The assessments are geared for only one type of learner.

2. Universal Access is clearly applied in the following ways:

   Universal access is not applied.

3. Universal Access is supported by these TE pages and ancillary materials:

   The standardized test practice has an error diagnosis in the TE wrap around. The assessment itself does not clearly address Universal Access.

Instructional Strategies are not prescribed in the mathematics framework, but outlined for the benefit of building a teacher's repertoire. How were the following models offered throughout the text and are the instructional strategies appropriate for the learning objective(s)?:

1. 5E Model: (1) Engage, (2) Explore, (3) Explain, (d) Elaborate, and (e) Evaluate (Interactive Strategy)

   Most is Practice, but it does have problems in the mix that offered the above.

2. The Three-Phase Model (Explicit Strategy)

   The strategies are not appropriate for the learning objectives. I still have to supplement it with other proven methods.

3. Concept Attainment Model (Interactive Strategy)

   ConnectED Media.

4. Cooperative Learning Model (Implicit Strategy)

   Worksheets, Labs, performance task.

5. Cognitively Guided Instruction (Implicit Strategy)

   There are guided problems and teacher led problems to build on cognition.

6. Problem-Based Learning (Interactive Strategy)

   Labs and performance task.

Note: for samples and explanations,
http://www.cde.ca.gov/ci/ma/cf/documents/aug2013instructstrat.pdf

Category 4: Universal Access

This section is based on the information found in the 2013 Math Framework, "Students with special needs must be provided access to the same standards-based curriculum that is provided to all students, including both the content standards and the standards for mathematical practice. Instructional materials should provide access to the standards-based curriculum for all students, including English learners, advanced learners, students below grade level in mathematical skills, and students with disabilities." Analyze the textbook for the following items—looking over the textbook in general, but focusing on areas of each lesson that lend themselves to these area (an example would be the opening piece of each lesson or special notes for teachers).

1. The textbook offers differentiation strategies based on current and confirmed research.

Yes_X__ No___

NOTES:

Yes, but very little.

2. Common misconceptions are mentioned, along with ideas for correction

Yes_X__ No___

NOTES:

No response provided.

3. The textbook contains specialized teaching methods or materials and accommodations for students with special needs

Yes_X__ No___

NOTES:

Approaching Level, maybe, but the resources seem to be a one for all.

4. Strategies for English learners are incorporated into lessons.

Yes_X__ No___

NOTES:

English Levels, but the resources seem to be a one for all.

6. Materials incorporate instructional strategies to address the needs of students with disabilities.

Yes___ No_X__

NOTES:

Approaching Level, maybe, but the resources are the same for On Level and English Learners, as Beyond Level.

7. Materials include thoughtful and well-conceived alternatives for advanced students that allow students to study in greater depth or complexity.

Yes___ No_X__

NOTES:

Some of the resources are the same for On Level, English Learners, as well as Beyond Level.

8. Materials help English learners access challenging mathematics, learn content, and develop grade- level language (for example: annotations to help with comprehension of words, examples of the use of words in other situations, modifications to language do not sacrifice the mathematics).

Yes_X__ No___

NOTES:

Resources and worksheets.

Final Thoughts

There are many other aspects of the materials that could be analyzed and reviewed. Below are a few more areas to consider for further evaluation:

1. Lesson and unit planning layout and options.

   Please see comments above.

2. Curriculum guide availability.

   Please see comments above.

3. All materials available in electronic form and platform neutral.

   Please see comments above.

4. Concrete models, including manipulatives are available.

   Please see comments above.

5. Strategies for informing parents or guardians about the program and suggestions for how they can support student progress and achievement.

   Please see comments above.

6. Suggestions for accelerating or decelerating the rate at which new material is introduced to students.

   Please see comments above.

7. Multiple ways in which to explain concepts.

   Please see comments above.