Title of Instructional Materials: McMillanMcGrawHill

Grade Level: Grade 1

Summary of Macmillan McGraw

Overall Rating: ☐ Weak (1-2) ☐ Moderate (2-3) ☒ Strong (3-4) **Summary / Justification / Evidence:** Very traditional approach. Familiar format. Like the way each unit is separated. Size of student workbook is a concern for student management of sequence.	Important Mathematical Ideas: ☐ Weak (1-2) ☐ Moderate (2-3) ☒ Strong (3-4) **Summary / Justification / Evidence:** Connected with student knowledge.
Skills and Procedures: ☐ Weak (1-2) ☐ Moderate (2-3) ☒ Strong (3-4) **Summary / Justification / Evidence:** Standards were covered however there were some weaknesses identified in kindergarten.	Mathematical Relationships: ☐ Weak (1-2) ☐ Moderate (2-3) ☒ Strong (3-4) **Summary / Justification / Evidence:** Good vertical allignment and connections among mathematical ideas was good.

1. Make sense of problems and persevere in solving them.	
Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of the problem, transform algebraic expressions or change the viewing window on their graphing calculator to get the information they need. Mathematically proficient students can explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures to help conceptualize and solve a problem. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?" They can understand the approaches of others to solving complex problems and identify correspondences between different approaches.	
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
Summary / Justification / Evidence:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

2. Reason abstractly and quantitatively.	
Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to *decontextualize*—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to *contextualize*, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits o creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.	
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
Summary / Justification / Evidence:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

3. Construct viable arguments and critique the reasoning of others.	
Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They are able to analyze situations by breaking them into cases, and can recognize and use counterexamples. They justify their conclusions, communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in an argument—explain what it is. Elementary students can construct arguments using concrete referents such as objects, drawings, diagrams, and actions. Such arguments can make sense and be correct, even though they are not generalized or made formal until later grades. Later, students learn to determine domains to which an argument applies. Students at all grades can listen or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.	
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
Summary / Justification / Evidence:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

4. Model with mathematics.	
Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.	
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
Summary / Justification / Evidence:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

5. Use appropriate tools strategically.	
Mathematically proficient students consider the available tools when solving a mathematical problem. These tools might include pencil and paper, concrete models, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software. Proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations. For example, mathematically proficient high school students analyze graphs of functions and solutions generated using a graphing calculator. They detect possible errors by strategically using estimation and other mathematical knowledge. When making mathematical models, they know that technology can enable them to visualize the results of varying assumptions, explore consequences, and compare predictions with data. Mathematically proficient students at various grade levels are able to identify relevant external mathematical resources, such as digital content located on a website, and use them to pose or solve problems. They are able to use technological tools to explore and deepen their understanding of concepts.	
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
Summary / Justification / Evidence:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

6. Attend to precision.	
Mathematically proficient students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They are careful about specifying units of measure, and labeling axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently, express numerical answers with a degree of precision appropriate for the problem context. In the elementary grades, students give carefully formulated explanations to each other. By the time they reach high school they have learned to examine claims and make explicit use of definitions.	
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
Summary / Justification / Evidence:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

7. Look for and make use of structure.	
Mathematically proficient students look closely to discern a pattern or structure. Young students, for example, might notice that three and seven more is the same amount as seven and three more, or they may sort a collection of shapes according to how many sides the shapes have. Later, students will see 7 °— 8 equals the well-remembered 7 °— 5 + 7 °— 3, in preparation for learning about the distributive property. In the expression $x2 + 9x + 14$, older students can see the 14 as 2 °— 7 and the 9 as 2 + 7. They recognize the significance of an existing line in a geometric figure and can use the strategy of drawing an auxiliary line for solving problems. They also can step back for an overview and shift perspective. They can see complicated things, such as some algebraic expressions, as single objects or as being composed of several objects. For example, they can see $5 - 3(x - y)2$ as 5 minus a positive number times a square and use that to realize that its value cannot be more than 5 for any real numbers x and y.	
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
Summary / Justification / Evidence:	**Overall Rating**: ☐1 ☐2 ☒3 ☐4

8. Look for and express regularity in repeated reasoning.	
Mathematically proficient students notice if calculations are repeated, and look both for general methods and for shortcuts. Upper elementary students might notice when dividing 25 by 11 that they are repeating the same calculations over and over again, and conclude they have a repeating decimal. By paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, middle school students might abstract the equation $(y - 2)/(x - 1) = 3$. Noticing the regularity in the way terms cancel when expanding $(x - 1)(x + 1)$, $(x - 1)(x2 + x + 1)$, and $(x - 1)(x3 + x2 + x + 1)$ might lead them to the general formula for the sum of a geometric series. As they work to solve a problem, mathematically proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results.	
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
Summary / Justification / Evidence:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

Domain: *Operations and Algebraic Thinking*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.OA.1** Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:** It doesn't have as many hands-on activities and shows weakness in problem solving.
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☒3 ☐4

Domain: *Operations and Algebraic Thinking*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.OA.2**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:** Weak in problem solving.
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☒2 ☐3 ☐4

Domain: *Operations and Algebraic Thinking*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.OA.3**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:** Actual vocabulary (communtative and associative) not used.
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☒3 ☐4

Domain: *Operations and Algebraic Thinking*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.OA.4**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:** Small group activity on page 89B was good, but the unknown addenc did not fully develop.
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☒3 ☐4

Domain: *Operations and Algebraic Thinking*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.OA.5**	Important Mathematical Ideas: ☐1 ☒2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☒3 ☐4 Mathematical Relationships: ☐1 ☐2 ☒3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:** Taught in isolation; didn't do the best job of connecting.
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☒3 ☐4

Domain: *Operations and Algebraic Thinking*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.OA.6**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:**
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☒3 ☐4

Domain: *Operations and Algebraic Thinking*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.OA.7**	Important Mathematical Ideas: ☐1 ☐2 ☒3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☒4 Mathematical Relationships: ☐1 ☐2 ☒3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:** Did not see examples of 6=6 for example.
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☒3 ☐4

Domain: *Operations and Algebraic Thinking*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.OA.8**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:**
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

Domain: *Number and Operations in Base Ten*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.NBT.1**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:** I did not see past 100.
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☒3 ☐4

Domain: *Number and Operations in Base Ten*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.NBT.2a**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:** Different ways to show tens.
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

Domain: *Number and Operations in Base Ten*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.NBT.2b**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:**
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

Domain: *Number and Operations in Base Ten*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.NBT.2c**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:**
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

Domain: *Number and Operations in Base Ten*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.NBT.3**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:** Comparing numbers not apparent.
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☒3 ☐4

Domain: *Number and Operations in Base Ten*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.NBT.4**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:**
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

Domain: *Number and Operations in Base Ten*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.NBT.5**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:** Not enough mental math.
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☒3 ☐4

Domain: *Number and Operations in Base Ten*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.NBT.6**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:** No examples
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☒1 ☐2 ☐3 ☐4

Domain: *Measurement and Data*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.MD.1**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:**
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

Domain: *Measurement and Data*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.MD.2**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:**
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

Domain: *Measurement and Data*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.MD.3**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:**
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

Domain: *Measurement and Data*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.MD.4**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:**
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

Domain: *Geometry*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.G.1**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:**
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

Domain: *Geometry*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.G.2**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:** Using 2D shapes to make another 2D shape.
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☒3 ☐4

Domain: *Geometry*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.G.3**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:**
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

Macmillan McGraw

INDIANA'S EDUCATION ROUNDTABLE 2010

Instructional Materials Analysis and Selection

Phase 3: Assessing Content Alignment to the Common Core State Standards for Mathematics

Grade 1

a project of
The Charles A. Dana Center
at the University of Texas at Austin

Instructional Materials Analysis and Selection

Phase 3:

Assessing Content Alignment to the Common Core State Standards for Mathematics

A project of
The Indiana Education Roundtable, The Indiana Department of Education,
and
The Charles A. Dana Center at The University of Texas at Austin

2010–2011

Instructional Materials Analysis and Selection

Assessing Content Alignment to the Common Core State Standards for Mathematics

This tool provides educators with a structured way to make informed decisions when selecting mathematics instructional materials. In particular, it can help you become more knowledgeable about the *Common Core State Standards for Mathematics* so you can select instructional materials aligned with these standards.

This resource can also be used with the Dana Center's larger 4-phase *Instructional Materials Analysis and Selection* toolset: Phase 1: *Studying the Standards*, Phase 2: *Narrowing the Field of Instructional Materials*, Phase 3: *Assessing Subject-Area Content Alignment*, and Phase 4: *Assessing Vertical Alignment of Instructional Materials*. The particular resource you hold is a phase 3 tool that has been customized for assessing the alignment of instructional materials with the *Common Core State Standards for Mathematics*. Note that in 2009, the Dana Center developed a similar tool for Indiana educators to use in analyzing the alignment of instructional materials to Indiana's *Academic Standards for Mathematics*.

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About the development of this resource

This tool, *Instructional Materials Analysis and Selection: Assessing Content Alignment to the Common Core State Standards for Mathematics*, draws on the Dana Center's nearly 20 years of experience in strengthening education and has been used extensively in Texas and, increasingly, other states, to help local school districts and schools select instructional materials aligned with their standards. Development and production of the Instructional Materials Analysis toolset was supported by the Charles A. Dana Center.

This resource consists of a set of 15 individual grade-level / course documents that span kindergarten through the third year of high school mathematics. There is a document for each grade from kindergarten through 8, and six documents for high school mathematics (one each for the three courses in the traditional high school pathway Algebra I, Geometry, Algebra II; and one each for the three courses in the integrated high school pathway Mathematics I, Mathematics II, and Mathematics III).* At the request of various states and other entities, the Dana Center has populated this *Instructional Materials Analysis and Selection* tool with standards from the *Common Core State Standards for Mathematics* for use by local districts in selecting instructional materials aligned with these standards.

Note that the copyright of the *Common Core State Standards for Mathematics* is held by the National Governors Association Center for Best Practices and the Council of Chief State School Officers (collectively, NGA Center/CCSSO). This use of the CCSS for Mathematics is done under the CCSS Terms of Use, available at www.corestandards.org/terms-of-use. Specifically, this work is done under the Terms of Use "non-exclusive, royalty-free license to copy, publish, distribute, and display the Common Core State Standards for non-commercial purposes that support the Common Core State Standards Initiative." For a complete copy of the *Common Core State Standards for Mathematics* as well as the *CCSS for Mathematics, Appendix A: Designing high school mathematics courses based on the Common Core State Standards,* go to **www.corestandards.org/the-standards**.

October 2010 release.

We welcome your comments and suggestions for improvements—please send to **dana-txshop@utlists.utexas.edu** or the address in the copyright section above.

About the Charles A. Dana Center at The University of Texas at Austin

The Dana Center works to raise student achievement in K–16 mathematics and science, especially for historically underserved populations. We do so by providing direct service to school districts and institutions of higher education; to local, state, and national education leaders; and to agencies, nonprofits, and professional organizations concerned with strengthening American education.

The Center was founded in 1991 at The University of Texas at Austin. We carry out our work by supporting high standards and building system capacity; collaborating with key state and national organizations to address emerging issues; creating and delivering professional supports for educators and education leaders; and writing and publishing education resources, including student supports. Our staff of more than 60 has worked with dozens of school systems in nearly 20 states and with 90 percent of Texas's more than 1,000 school districts. We are committed to ensuring that the accident of where a child attends school does not limit the academic opportunities he or she can pursue.

For more information about our programs and resources, see our homepage at **www.utdanacenter.org.** To access our resources (many of them free), see our products index at **www.utdanacenter.org/products.** And to learn more about our professional development—and sign up online—go to **www.utdanacenter.org/pd**.

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* For the high school course sequences, we relied on the *Common Core State Standards Mathematics Appendix A: Designing High School Mathematics Courses Based on the Common Core State Standards*, developed for the CCSS initiative by Achieve, Inc., which convened and managed the Achieve Pathways Group.

Acknowledgments

Unless otherwise noted, all staff listed here are affiliated with the Dana Center.

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Introduction

Phase 1: **Studying the Standards**

Phase 2: **Narrowing the Field of Instructional Materials**

Phase 3: **Assessing Mathematical Content Alignment**

The purpose of Phase 3: Assessing Mathematical Content Alignment is to determine the degree to which the materials are aligned to the standards (content and processes). In Phase 3, participants conduct an in-depth review of the 2-3 instructional materials selected in Phase 2. The Phase 3 process requires selection committee members to use set criteria in order to determine a rating for each sample, to cite examples to justify their score for each sample, and to document standards that are missing or not well-developed in the instructional materials examined.

Implementation

As a whole group, selection committee members should practice applying the Phase 3 rubric. The purpose of the whole group practice is to promote inter-rater reliability and calibration.

In Phase 3 it is not important to analyze every page, section, or chapter of a resource. It is important to identify an area, topic, or big idea for the deep content analysis of Phase 3 (e.g. development of equivalent fractions, addition of whole numbers, development of proportionality…). The identified area, topic, or big idea will be used for all the instructional materials considered in Phase 3. The area, topic, or big idea can be identified through the use of student achievement data, curriculum priorities/challenges, or ideas that typically make up a greater portion of instruction in particular grade levels/courses. In most cases, Phase 3 will identify the one resource that is best aligned.

Step-by-Step Instructions

1. Use your current adoption to practice using the Phase 3 rubric. Select one big idea to focus your analysis (see note above for selecting the area, topic, or big idea).
2. Independently, committee members use their current resource, the identified big idea (and associated pages in that resource), and the Phase 3 rubric to score and document the extent to which the material (content and processes) aligns to the standards.
3. In small groups, committee members share their scoring and justifications. Small groups come to consensus on how the current resource would score on this big idea.
4. Each small group shares with the large group their score. Repeat the consensus building to generate a large group score on this big idea.
5. Clarify any misunderstandings about how to apply the rubric before committee members begin to use Phase 3 rubric on the selected materials.

6. Based on the size of the selection committee, determine the number of areas, topics, or big ideas to be examined for each grade/course. If the group size is large, more areas, topics, big ideas can be examined within each grade level/course.
7. Make sure committee members have multiple copies of the Phase 3 rubric.
8. Committee members apply the Phase 3 rubric for each of the materials.
9. Establish a time line for groups to complete and submit Phase 3 documentation.
10. Establish a data collection and analysis process to attain a rating for each resource.

Materials and Supplies

- Phase 3: Assessing Mathematical Content Alignment black line master — multiple copies per person
- Currently used instructional resource
- The 2 to 4 instructional materials selected in Phase 2

Phase 4: Assessing Vertical Alignment of Instructional Materials

Important Mathematical Ideas: Understanding the scoring

	Superficially Developed			Well Developed
Development	1	2	3	4
	Important mathematical ideas are alluded to simply or are missing, approached primarily from a skill level, or provided for students outside any context.			Important mathematical ideas are evident, conceptually developed, and emerge within the context of real-world examples, interesting problems, application situations, or student investigations.
Connections	1	2	3	4
	Important mathematical ideas are developed independently of each other (i.e., they are discrete, independent ideas).			Important mathematical ideas are developed by expanding and connecting to other important mathematical ideas in such a way as to build understanding of mathematics as a unified whole.
Rigor and Depth	1	2	3	4
	Important mathematical ideas are applied in routine problems or in using formulated procedures, and are extended in separate / optional problems.			Important mathematical ideas are applied and extended in novel situations or embedded in the content, requiring the extension of important mathematical ideas and the use of multiple approaches.

Skills and Procedures:
Understanding the scoring

	Superficially Developed			Well Developed
	1	2	3	4
Development	Skills and procedures are the primary focus, are developed without conceptual understanding, and are loosely connected to important mathematical ideas — important mathematical ideas are adjunct.			Skills and procedures are integrated with important mathematical ideas and are presented as important tools in applying and understanding important mathematical ideas.
	1	2	3	4
Connections	Skills and procedures are treated as discrete skills rarely connected to important mathematical ideas or other skills and procedures.			Skills and procedures are integrated with—and consistently connected to—important mathematical ideas and other skills and procedures.
	1	2	3	4
Rigor and Depth	Skills and procedures are practiced without conceptual understanding outside any context, do not require the use of important mathematical ideas, and are primarily practiced in rote exercises and drill.			Skills and procedures are critical to the application and understanding of important mathematical ideas, and are embedded in problem situations.

Mathematical Relationships: Understanding the scoring

	Superficially Developed			Well Developed
Development	1	2	3	4
	Mathematical relationships are not evident, and mathematics appears as a series of discrete skills and ideas.			Mathematical relationships are evident in such a way as to build understanding of mathematics as a unified whole.
Connections	1	2	3	4
	Mathematical relationships are not required of students or are used primarily to provide a context for the practice of skills or procedures — words wrapped around drill.			Mathematical relationships are integrated with important mathematical ideas, and are integral in required activities, problems, and applications.
Rigor and Depth	1	2	3	4
	Mathematical relationships require the use of skills and procedures, but rarely require the use of any important mathematical ideas or connections outside mathematics.			Mathematical relationships require the broad use of mathematics and integrate the need for important mathematical ideas, skills, and procedures, as well as connections outside mathematics.

Reviewed By: _____

Title of Instructional Materials: _____

Documenting Alignment to the Standards for Mathematical Practice

1. Make sense of problems and persevere in solving them.

Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of the problem, transform algebraic expressions or change the viewing window on their graphing calculator to get the information they need. Mathematically proficient students can explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures to help conceptualize and solve a problem. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?" They can understand the approaches of others to solving complex problems and identify correspondences between different approaches.

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

Documenting Alignment to the Standards for Mathematical Practice

2. Reason abstractly and quantitatively.

Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to decontextualize—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to contextualize, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

Documenting Alignment to the Standards for Mathematical Practice

3. Construct viable arguments and critique the reasoning of others.

Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They are able to analyze situations by breaking them into cases, and can recognize and use counterexamples. They justify their conclusions, communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in an argument—explain what it is. Elementary students can construct arguments using concrete referents such as objects, drawings, diagrams, and actions. Such arguments can make sense and be correct, even though they are not generalized or made formal until later grades. Later, students learn to determine domains to which an argument applies. Students at all grades can listen or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

Documenting Alignment to the Standards for Mathematical Practice

4. Model with mathematics.

Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

Documenting Alignment to the Standards for Mathematical Practice

5. Use appropriate tools strategically.

Mathematically proficient students consider the available tools when solving a mathematical problem. These tools might include pencil and paper, concrete models, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software. Proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations. For example, mathematically proficient high school students analyze graphs of functions and solutions generated using a graphing calculator. They detect possible errors by strategically using estimation and other mathematical knowledge. When making mathematical models, they know that technology can enable them to visualize the results of varying assumptions, explore consequences, and compare predictions with data. Mathematically proficient students at various grade levels are able to identify relevant external mathematical resources, such as digital content located on a website, and use them to pose or solve problems. They are able to use technological tools to explore and deepen their understanding of concepts.

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

Documenting Alignment to the Standards for Mathematical Practice

6. Attend to precision.

Mathematically proficient students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They are careful about specifying units of measure, and labeling axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently, express numerical answers with a degree of precision appropriate for the problem context. In the elementary grades, students give carefully formulated explanations to each other. By the time they reach high school they have learned to examine claims and make explicit use of definitions.

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

Documenting Alignment to the Standards for Mathematical Practice

7. Look for and make use of structure.

Mathematically proficient students look closely to discern a pattern or structure. Young students, for example, might notice that three and seven more is the same amount as seven and three more, or they may sort a collection of shapes according to how many sides the shapes have. Later, students will see 7×8 equals the well remembered $7 \times 5 + 7 \times 3$, in preparation for learning about the distributive property. In the expression $x^2 + 9x + 14$, older students can see the 14 as 2×7 and the 9 as $2 + 7$. They recognize the significance of an existing line in a geometric figure and can use the strategy of drawing an auxiliary line for solving problems. They also can step back for an overview and shift perspective. They can see complicated things, such as some algebraic expressions, as single objects or as being composed of several objects. For example, they can see $5 - 3(x - y)^2$ as 5 minus a positive number times a square and use that to realize that its value cannot be more than 5 for any real numbers x and y.

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

Documenting Alignment to the Standards for Mathematical Practice

8. Look for and express regularity in repeated reasoning.

Mathematically proficient students notice if calculations are repeated, and look both for general methods and for shortcuts. Upper elementary students might notice when dividing 25 by 11 that they are repeating the same calculations over and over again, and conclude they have a repeating decimal. By paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, middle school students might abstract the equation $(y - 2)/(x - 1) = 3$. Noticing the regularity in the way terms cancel when expanding $(x - 1)(x + 1)$, $(x - 1)(x^2 + x + 1)$, and $(x - 1)(x^3 + x2 + x + 1)$ might lead them to the general formula for the sum of a geometric series. As they work to solve a problem, mathematically proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results.

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

MATHEMATICS: GRADE 1 – OPERATIONS AND ALGEBRAIC THINKING – 1.OA

Represent and solve problems involving addition and subtraction.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.OA.1 Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.[1] 1 See Glossary, Table 1. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Only one pg. Per Chapter on Problem Solving 3-8 Pg 105, 106 2-9 Pg 73, 74 They Do have some Handson activities to go along.	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating: 1 2 ✓ 3 4

Reviewed By: _____

Title of Instructional Materials: _____

MATHEMATICS: GRADE 1 – OPERATIONS AND ALGEBRAIC THINKING – 1.OA

Represent and solve problems involving addition and subtraction.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.OA.2 Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Weak	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

MATHEMATICS: GRADE 1 – OPERATIONS AND ALGEBRAIC THINKING – 1.OA

Understand and apply properties of operations and the relationship between addition and subtraction.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.OA.3 Apply properties of operations as strategies to add and subtract.[1] *Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.)* 1 Students need not use formal terms for these properties. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 3-1-5 review pg 99 3-2 pg 89, 90	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Traditional Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating: 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

MATHEMATICS: GRADE 1 – OPERATIONS AND ALGEBRAIC THINKING – 1.OA

Understand and apply properties of operations and the relationship between addition and subtraction.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.OA.4 Understand subtraction as an unknown-addend problem. *For example, subtract 10 – 8 by finding the number that makes 10 when added to 8.* **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 3-2 pg 89 p. 89B like small group activity	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating: 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

MATHEMATICS: GRADE 1 – OPERATIONS AND ALGEBRAIC THINKING – 1.OA

Add and subtract within 20.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.OA.5 Relate counting to addition and subtraction (e.g., by counting on 2 to add 2). Skip Counting & Number patterns were developed But did not see adding on to problems (or subtracting)	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence**
Indicate the chapter(s), section(s), and/or page(s) reviewed. Chapter 8 - Fl patterns 8-2 - Counting By 10's. 8-7 Skip Counting	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
	Overall Rating: 1 2 ✓ 3 4

Reviewed By: _____

Title of Instructional Materials: _____

MATHEMATICS: GRADE 1 – OPERATIONS AND ALGEBRAIC THINKING – 1.OA

Add and subtract within 20.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.OA.6 Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13). **Indicate the chapter(s), section(s), and/or page(s) reviewed.** discussed in ch. 2 & 3	Important Mathematical Ideas: 1 2 **3** 4 Skills and Procedures: 1 2 **3** 4 Mathematical Relationships: 1 2 **3** 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating: 1 2 **3** 4

Reviewed By: _____

Title of Instructional Materials: _____

MATHEMATICS: GRADE 1 – OPERATIONS AND ALGEBRAIC THINKING – 1.OA

Work with addition and subtraction equations.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.OA.7 Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. *For example, which of the following equations are true and which are false? 6 = 6, 7 = 8 – 1, 5 + 2 = 2 + 5, 4 + 1 = 5 + 2.* didn't see examples such as 6=6 **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 10-5 pg. 330 draw lines to fact families + i – 10-8 pg 337	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating: 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

MATHEMATICS: GRADE 1 – OPERATIONS AND ALGEBRAIC THINKING – 1.OA

Work with addition and subtraction equations.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.OA.8 Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = ☐ – 3, 6 + 6 = ☐.*	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence**
Indicate the chapter(s), section(s), and/or page(s) reviewed. Fact Families 6-6, 6-7 (197), (199) Chapt 3 - developing Concepts 3-7 pg 104 3-6 - 101. 102	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
	Overall Rating: 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

MATHEMATICS: GRADE 1 – NUMBER AND OPERATIONS IN BASE TEN – 1.NBT

Extend the counting sequence.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.NBT.1 Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence**
Indicate the chapter(s), section(s), and/or page(s) reviewed. Ch 1 # less than 20 Ch 8 Recognizing # patterns - to 100 did not see patterns past 100	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
	Overall Rating: 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

MATHEMATICS: GRADE 1 – NUMBER AND OPERATIONS IN BASE TEN – 1.NBT

Understand place value.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.NBT.2a 2. Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: a. 10 can be thought of as a bundle of ten ones — called a "ten." Ch 13 - Place Value **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 13-1, 13-2, 13-4	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

MATHEMATICS: GRADE 1 – NUMBER AND OPERATIONS IN BASE TEN – 1.NBT

Understand place value.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.NBT.2b 2. Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 13-2 pg 423,424	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

MATHEMATICS: GRADE 1 – NUMBER AND OPERATIONS IN BASE TEN – 1.NBT

Understand place value.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.NBT.2c 2. Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones). **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 13-1 pg 419-420 also Chapt 15 (15-7) 15-4	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

MATHEMATICS: GRADE 1 – NUMBER AND OPERATIONS IN BASE TEN – 1.NBT

Understand place value.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.NBT.3 Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 13-8 pg 443-444 Comparing #s 13-9 ordering #s to 100	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating: 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

MATHEMATICS: GRADE 1 – NUMBER AND OPERATIONS IN BASE TEN – 1.NBT

Use place value understanding and properties of operations to add and subtract.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.NBT.4 Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Ch 5, 1, 2, 15	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

MATHEMATICS: GRADE 1 – NUMBER AND OPERATIONS IN BASE TEN – 1.NBT

Use place value understanding and properties of operations to add and subtract.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.NBT.5 Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Some mental math ch 5	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating: 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

MATHEMATICS: GRADE 1 – NUMBER AND OPERATIONS IN BASE TEN – 1.NBT

Use place value understanding and properties of operations to add and subtract.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.NBT.6 Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Cannot find examples	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

MATHEMATICS: GRADE 1 – MEASUREMENT AND DATA – 1.MD

Measure lengths indirectly and by iterating length units.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.MD.1 Order three objects by length; compare the lengths of two objects indirectly by using a third object. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 9-4 pg 291-294 9-1 pg 277-278	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating: 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

MATHEMATICS: GRADE 1 – MEASUREMENT AND DATA – 1.MD

Measure lengths indirectly and by iterating length units.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.MD.2 Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. *Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.* **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

MATHEMATICS: GRADE 1 – MEASUREMENT AND DATA – 1.MD

Tell and write time.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.MD.3 Tell and write time in hours and half-hours using analog and digital clocks. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 7-5	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

MATHEMATICS: GRADE 1 – MEASUREMENT AND DATA – 1.MD

Represent and interpret data.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.MD.4 Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence**
Indicate the chapter(s), section(s), and/or page(s) reviewed. Pretty thorough Chapter 4	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
	Overall Rating: 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

MATHEMATICS: GRADE 1 – GEOMETRY – 1.G

Reason with shapes and their attributes.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.G.1 Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 12-1 12-4	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating: 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

MATHEMATICS: GRADE 1 – GEOMETRY – 1.G

Reason with shapes and their attributes.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.G.2 Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.[1] 1 Students do not need to learn formal names such as "right rectangular prism." **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Pg 391-392 (12-4) 12-8 pg. 405 - Creating new shapes	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating: 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

MATHEMATICS: GRADE 1 – GEOMETRY – 1.G

Reason with shapes and their attributes.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.G.3 Partition circles and rectangles into two and four equal shares, describe the shares using the words *halves, fourths*, and *quarters*, and use the phrases *half of, fourth of,* and *quarter of.* Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Ch 14	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

1st

Reviewed By: [redacted]

Title of Instructional Materials: Math Connects [MacMillan McGraw-Hill]

Documenting Alignment to the Standards for Mathematical Practice

1. Make sense of problems and persevere in solving them.

Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of the problem, transform algebraic expressions or change the viewing window on their graphing calculator to get the information they need. Mathematically proficient students can explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures to help conceptualize and solve a problem. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?" They can understand the approaches of others to solving complex problems and identify correspondences between different approaches.

Indicate the chapter(s), section(s), or page(s) reviewed.

Chapters 1, 4, 8
~~Sh~~ pages 20 – 128
255 – 260

Summary/Justification/Evidence

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Overall Rating

1 2 3 4

Reviewed By: [redacted]

Title of Instructional Materials: Math Connects

Documenting Alignment to the Standards for Mathematical Practice

2. Reason abstractly and quantitatively.

Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to decontextualize—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to contextualize, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.

Indicate the chapter(s), section(s), or page(s) reviewed.

Chapter 2, 5, 8–10

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

1 — 2 — 3 — 4

Reviewed By: [redacted]

Title of Instructional Materials: Math Connects

Documenting Alignment to the Standards for Mathematical Practice

3. Construct viable arguments and critique the reasoning of others.

Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They are able to analyze situations by breaking them into cases, and can recognize and use counterexamples. They justify their conclusions, communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in an argument—explain what it is. Elementary students can construct arguments using concrete referents such as objects, drawings, diagrams, and actions. Such arguments can make sense and be correct, even though they are not generalized or made formal until later grades. Later, students learn to determine domains to which an argument applies. Students at all grades can listen or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.

Indicate the chapter(s), section(s), or page(s) reviewed.

Chapters 3, 5, 6, 8–10

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

1 — 2 — 3 — 4

Reviewed By: [redacted]

Title of Instructional Materials: Math Connects

Documenting Alignment to the Standards for Mathematical Practice

4. Model with mathematics.

Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.

Indicate the chapter(s), section(s), or page(s) reviewed.

Chapters 1, 3, 6–8

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

1 2 3 4

Reviewed By: [redacted]

Title of Instructional Materials: Math Connects

Documenting Alignment to the Standards for Mathematical Practice

5. Use appropriate tools strategically.

Mathematically proficient students consider the available tools when solving a mathematical problem. These tools might include pencil and paper, concrete models, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software. Proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations. For example, mathematically proficient high school students analyze graphs of functions and solutions generated using a graphing calculator. They detect possible errors by strategically using estimation and other mathematical knowledge. When making mathematical models, they know that technology can enable them to visualize the results of varying assumptions, explore consequences, and compare predictions with data. Mathematically proficient students at various grade levels are able to identify relevant external mathematical resources, such as digital content located on a website, and use them to pose or solve problems. They are able to use technological tools to explore and deepen their understanding of concepts.

Indicate the chapter(s), section(s), or page(s) reviewed.

Chapters 2-4, 7, 8, 13, & 14

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

1 — 2 — 3 — 4

Reviewed By: [redacted]

Title of Instructional Materials: Math Connects

Documenting Alignment to the Standards for Mathematical Practice

6. Attend to precision.

Mathematically proficient students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They are careful about specifying units of measure, and labeling axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently, express numerical answers with a degree of precision appropriate for the problem context. In the elementary grades, students give carefully formulated explanations to each other. By the time they reach high school they have learned to examine claims and make explicit use of definitions.

Indicate the chapter(s), section(s), or page(s) reviewed.

Chapters 1, 3, 5-7, 10 & 11

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

1 — 2 — 3 — 4

Reviewed By: [redacted]

Title of Instructional Materials: Math Connects

Documenting Alignment to the Standards for Mathematical Practice

7. Look for and make use of structure.

Mathematically proficient students look closely to discern a pattern or structure. Young students, for example, might notice that three and seven more is the same amount as seven and three more, or they may sort a collection of shapes according to how many sides the shapes have. Later, students will see 7×8 equals the well remembered $7 \times 5 + 7 \times 3$, in preparation for learning about the distributive property. In the expression $x^2 + 9x + 14$, older students can see the 14 as 2×7 and the 9 as $2 + 7$. They recognize the significance of an existing line in a geometric figure and can use the strategy of drawing an auxiliary line for solving problems. They also can step back for an overview and shift perspective. They can see complicated things, such as some algebraic expressions, as single objects or as being composed of several objects. For example, they can see $5 - 3(x - y)^2$ as 5 minus a positive number times a square and use that to realize that its value cannot be more than 5 for any real numbers x and y.

Indicate the chapter(s), section(s), or page(s) reviewed.

Chapters 2, 5–7, 9, 10

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

1 — 2 — 3 — 4

Reviewed By: [redacted]

Title of Instructional Materials: Math Connects

Documenting Alignment to the Standards for Mathematical Practice

8. Look for and express regularity in repeated reasoning.

Mathematically proficient students notice if calculations are repeated, and look both for general methods and for shortcuts. Upper elementary students might notice when dividing 25 by 11 that they are repeating the same calculations over and over again, and conclude they have a repeating decimal. By paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, middle school students might abstract the equation $(y - 2)/(x - 1) = 3$. Noticing the regularity in the way terms cancel when expanding $(x - 1)(x + 1)$, $(x - 1)(x^2 + x + 1)$, and $(x - 1)(x^3 + x2 + x + 1)$ might lead them to the general formula for the sum of a geometric series. As they work to solve a problem, mathematically proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results.

Indicate the chapter(s), section(s), or page(s) reviewed.

Chapters 4-6, 11, 12, 15

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

1 2 3 4

Reviewed By: [redacted]

Title of Instructional Materials: Math Connects

MATHEMATICS: GRADE 1 – OPERATIONS AND ALGEBRAIC THINKING – 1.OA

Represent and solve problems involving addition and subtraction.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.OA.1 Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.[1] 1 See Glossary, Table 1. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Chapters 2, 3, 5, 6, + 11	Important Mathematical Ideas: 1 2 ~~3~~ 4 Skills and Procedures: 1 2 ~~3~~ 4 Mathematical Relationships: 1 2 ~~3~~ 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating: 1 2 ~~3~~ 4

Reviewed By: [redacted]

Title of Instructional Materials: Math Connects

MATHEMATICS: GRADE 1 – OPERATIONS AND ALGEBRAIC THINKING – 1.OA

Represent and solve problems involving addition and subtraction.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.OA.2 Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Chapters 2, 3, 5, 10, & 15 Student book pp 50–102 pp 485–500	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating: 1 2 3 4

Reviewed By: [redacted]

Title of Instructional Materials: Math Connects

MATHEMATICS: GRADE 1 – OPERATIONS AND ALGEBRAIC THINKING – 1.OA

Understand and apply properties of operations and the relationship between addition and subtraction.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.OA.3 Apply properties of operations as strategies to add and subtract.[1] *Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.)* 1 Students need not use formal terms for these properties. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Chapters 2, 3, 4, 6, 10 & 15 Student book pp 50–200	Important Mathematical Ideas: 1 2 ~~3~~ 4 Skills and Procedures: 1 2 ~~3~~ 4 Mathematical Relationships: 1 2 ~~3~~ 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating: 1 2 ~~3~~ 4

Reviewed By: [redacted]

Title of Instructional Materials: Math Connects

MATHEMATICS: GRADE 1 – OPERATIONS AND ALGEBRAIC THINKING – 1.OA

Understand and apply properties of operations and the relationship between addition and subtraction.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.OA.4 Understand subtraction as an unknown-addend problem. *For example, subtract 10 – 8 by finding the number that makes 10 when added to 8.* **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Chapters 2, 3, 4, 6, 10 & 15	Important Mathematical Ideas: 1 2 ~~3~~ 4 Skills and Procedures: 1 2 ~~3~~ 4 Mathematical Relationships: 1 2 ~~3~~ 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating: 1 2 ~~3~~ 4

Reviewed By: [redacted]

Title of Instructional Materials: Math Connects

MATHEMATICS: GRADE 1 – OPERATIONS AND ALGEBRAIC THINKING – 1.OA

Add and subtract within 20.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.OA.5 Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).	Important Mathematical Ideas: 1 2 ~~3~~ 4 Skills and Procedures: 1 2 ~~3~~ 4 Mathematical Relationships: 1 2 ~~3~~ 4 **Summary / Justification / Evidence**
Indicate the chapter(s), section(s), and/or page(s) reviewed. Chapters 2, 3, 6, & 10 Student book pp60 – 200	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating: 1 2 ~~3~~ 4

Reviewed By: [redacted]

Title of Instructional Materials: Math Connects

MATHEMATICS: GRADE 1 – OPERATIONS AND ALGEBRAIC THINKING – 1.OA

Add and subtract within 20.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.OA.6 Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).	Important Mathematical Ideas: 1 2 ~~3~~ 4 Skills and Procedures: 1 2 ~~3~~ 4 Mathematical Relationships: 1 2 ~~3~~ 4 **Summary / Justification / Evidence**
Indicate the chapter(s), section(s), and/or page(s) reviewed. Chapters 2, 3, 6, 10, & 15	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
	Overall Rating: 1 2 ~~3~~ 4

Reviewed By: [redacted]

Title of Instructional Materials: Math Connects

MATHEMATICS: GRADE 1 – OPERATIONS AND ALGEBRAIC THINKING – 1.OA

Work with addition and subtraction equations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.OA.7 Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. *For example, which of the following equations are true and which are false? 6 = 6, 7 = 8 – 1, 5 + 2 = 2 + 5, 4 + 1 = 5 + 2.* **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Chapters 2, 3, 5, + 6 Student book pp 50 100	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating: 1 2 3 4

Reviewed By: [redacted]

Title of Instructional Materials: Math Connects

MATHEMATICS: GRADE 1 – OPERATIONS AND ALGEBRAIC THINKING – 1.OA

Work with addition and subtraction equations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.OA.8 Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = ☐ – 3, 6 + 6 = ☐.* **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Chapters 2, 3, 5, 6, 10 CCSS Supplement Lesson #6 (St. Bk 17 & 18) Student book pp 50 – 100	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating: 1 2 3 4

Reviewed By: [redacted]

Title of Instructional Materials: Math Connects

MATHEMATICS: GRADE 1 – NUMBER AND OPERATIONS IN BASE TEN – 1.NBT

Extend the counting sequence.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.NBT.1 Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence**
Indicate the chapter(s), section(s), and/or page(s) reviewed. Chapters 1, 8, 10, + 13 Student book pp 20-40; 240-270; 410-450 CCSS Supplement Lesson 2 Student pp 7-8 + 22	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
	Overall Rating: 1 2 3 4

Reviewed By: [redacted]

Title of Instructional Materials: Math Connects

MATHEMATICS: GRADE 1 – NUMBER AND OPERATIONS IN BASE TEN – 1.NBT

Understand place value.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.NBT.2a 2. Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: a. 10 can be thought of as a bundle of ten ones — called a "ten." **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Chapters 13 & 15 CCSS Supplemental Lesson #3 (Student pp 9 & 10 & 23)	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating: 1 2 3 4

Reviewed By: [redacted]

Title of Instructional Materials: Math Connects

MATHEMATICS: GRADE 1 – NUMBER AND OPERATIONS IN BASE TEN – 1.NBT

Understand place value.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.NBT.2b 2. Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Chapters 13 & 15 Student Book pg 419-452	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating: 1 2 3 4

Reviewed By: [redacted]

Title of Instructional Materials: Math Connects

MATHEMATICS: GRADE 1 – NUMBER AND OPERATIONS IN BASE TEN – 1.NBT

Understand place value.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.NBT.2c 2. Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones). **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Chapters 13 + 15 Student book pp 419-452	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating: 1 2 3 4

Reviewed By: [redacted]

Title of Instructional Materials: Math Connects

MATHEMATICS: GRADE 1 – NUMBER AND OPERATIONS IN BASE TEN – 1.NBT

Understand place value.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.NBT.3 Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.	Important Mathematical Ideas: 1 ~~2~~ 3 4 Skills and Procedures: 1 ~~2~~ 3 4 Mathematical Relationships: 1 ~~2~~ 3 4 **Summary / Justification / Evidence**
Indicate the chapter(s), section(s), and/or page(s) reviewed. Chapters 13 & 15	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Limited use of comparison symbols
	Overall Rating: 1 ~~2~~ 3 4

Reviewed By: [redacted]

Title of Instructional Materials: Math Connects

MATHEMATICS: GRADE 1 – NUMBER AND OPERATIONS IN BASE TEN – 1.NBT

Use place value understanding and properties of operations to add and subtract.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.NBT.4 Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Chapters 13 + 15 Student book pp 419-452 CCSS Supplemental lesson #3 (Student pages 9, 10, + 23)	Important Mathematical Ideas: 1 2 **3** 4 Skills and Procedures: 1 2 **3** 4 Mathematical Relationships: 1 2 **3** 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating: 1 2 **3** 4

Reviewed By: [redacted]

Title of Instructional Materials: Math Connects

MATHEMATICS: GRADE 1 – NUMBER AND OPERATIONS IN BASE TEN – 1.NBT

Use place value understanding and properties of operations to add and subtract.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.NBT.5 Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.	Important Mathematical Ideas: 1 2 3 X 4 Skills and Procedures: 1 2 3 X 4 Mathematical Relationships: 1 2 3 X 4 **Summary / Justification / Evidence**
Indicate the chapter(s), section(s), and/or page(s) reviewed. Chapter 13 + 15 CCSS lessons 3 + 4 + 5 Student page 9, 10, 11, 12, 13, 14 + 25	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
	Overall Rating: 1 2 3 X 4

Reviewed By: [redacted]

Title of Instructional Materials: Math Connects

MATHEMATICS: GRADE 1 – NUMBER AND OPERATIONS IN BASE TEN – 1.NBT

Use place value understanding and properties of operations to add and subtract.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.NBT.6 Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence**
Indicate the chapter(s), section(s), and/or page(s) reviewed. Chapters 13 & 15 CCSS Lesson #6 SI page 17, 18, 25, & 26	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
	Overall Rating: 1 2 3 4

Reviewed By: [redacted]

Title of Instructional Materials: Math Connects

MATHEMATICS: GRADE 1 – MEASUREMENT AND DATA – 1.MD

Measure lengths indirectly and by iterating length units.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.MD.1 Order three objects by length; compare the lengths of two objects indirectly by using a third object.	Important Mathematical Ideas: 1 2 ~~3~~ 4 Skills and Procedures: 1 2 ~~3~~ 4 Mathematical Relationships: 1 2 ~~3~~ 4 **Summary / Justification / Evidence**
Indicate the chapter(s), section(s), and/or page(s) reviewed. Chapter 12, 13 Chapter 9 Student pages 395 – 410 CCSS Supplement lesson #7 (pp 19, 20, 27)	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating: 1 2 ~~3~~ 4

Reviewed By: [redacted]

Title of Instructional Materials: Math Connects

MATHEMATICS: GRADE 1 – MEASUREMENT AND DATA – 1.MD

Measure lengths indirectly and by iterating length units.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.MD.2 Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. *Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.* **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Chapter 9 & 12	Important Mathematical Ideas: 1 ~~2~~ 3 4 Skills and Procedures: 1 ~~2~~ 3 4 Mathematical Relationships: 1 ~~2~~ 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating: 1 ~~2~~ 3 4

Reviewed By: [redacted]

Title of Instructional Materials: Math Connects

MATHEMATICS: GRADE 1 – MEASUREMENT AND DATA – 1.MD

Tell and write time.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.MD.3 Tell and write time in hours and half-hours using analog and digital clocks.	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence**
Indicate the chapter(s), section(s), and/or page(s) reviewed. Chapter 7 St. book pp 215 - 228	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
	Overall Rating: 1 2 3 4

Reviewed By: [redacted]

Title of Instructional Materials: Math Connects

MATHEMATICS: GRADE 1 – MEASUREMENT AND DATA – 1.MD

Represent and interpret data.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.MD.4 Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence**
Indicate the chapter(s), section(s), and/or page(s) reviewed. Chapter 4 Stu. book pp 125 - 140	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
	Overall Rating: 1 2 3 4

Reviewed By: [redacted]

Title of Instructional Materials: Math Connects

MATHEMATICS: GRADE 1 – GEOMETRY – 1.G

Reason with shapes and their attributes.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.G.1 Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Chapter 12 Sec. pages 387–406	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating: 1 2 3 4

Reviewed By: [redacted]

Title of Instructional Materials: Math Connects

MATHEMATICS: GRADE 1 – GEOMETRY – 1.G

Reason with shapes and their attributes.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.G.2 Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.[1] 1 Students do not need to learn formal names such as "right rectangular prism." **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Chapter 12 St. page 405 – 406	Important Mathematical Ideas: 1 2 3 4 Skills and Procedures: 1 2 3 4 Mathematical Relationships: 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** limited practice Overall Rating: 1 2 3 4

Reviewed By: [redacted]

Title of Instructional Materials: Math Connects

MATHEMATICS: GRADE 1 – GEOMETRY – 1.G

Reason with shapes and their attributes.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.G.3 Partition circles and rectangles into two and four equal shares, describe the shares using the words *halves, fourths*, and *quarters*, and use the phrases *half of, fourth of*, and *quarter of*. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Chapter 14 St pages 457–464	Important Mathematical Ideas: 1 2 ~~3~~ 4 Skills and Procedures: 1 ~~2~~ 3 4 Mathematical Relationships: 1 2 ~~3~~ 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating: 1 2 ~~3~~ 4

Math Connects Gr. 1

Important Mathematical Ideas:
Understanding the scoring

	Superficially Developed			Well Developed
Development	1	2	3	4
	Important mathematical ideas are alluded to simply or are missing, approached primarily from a skill level, or provided for students outside any context.			Important mathematical ideas are evident, conceptually developed, and emerge within the context of real-world examples, interesting problems, application situations, or student investigations.
Connections	1	2	3	4
	Important mathematical ideas are developed independently of each other (i.e., they are discrete, independent ideas).			Important mathematical ideas are developed by expanding and connecting to other important mathematical ideas in such a way as to build understanding of mathematics as a unified whole.
Rigor and Depth	1	2	3	4
	Important mathematical ideas are applied in routine problems or in using formulated procedures, and are extended in separate / optional problems.			Important mathematical ideas are applied and extended in novel situations or embedded in the content, requiring the extension of important mathematical ideas and the use of multiple approaches.

Skills and Procedures:
Understanding the scoring

	Superficially Developed	Well Developed
Development	1 — 2 — 3 — 4 Skills and procedures are the primary focus, are developed without conceptual understanding, and are loosely connected to important mathematical ideas — important mathematical ideas are adjunct.	Skills and procedures are integrated with important mathematical ideas and are presented as important tools in applying and understanding important mathematical ideas.
Connections	1 — 2 — 3 — 4 Skills and procedures are treated as discrete skills rarely connected to important mathematical ideas or other skills and procedures.	Skills and procedures are integrated with—and consistently connected to—important mathematical ideas and other skills and procedures.
Rigor and Depth	1 — 2 — 3 — 4 Skills and procedures are practiced without conceptual understanding outside any context, do not require the use of important mathematical ideas, and are primarily practiced in rote exercises and drill.	Skills and procedures are critical to the application and understanding of important mathematical ideas, and are embedded in problem situations.

Mathematical Relationships: Understanding the scoring

	Superficially Developed			Well Developed
Development	1	2	3	4
	Mathematical relationships are not evident, and mathematics appears as a series of discrete skills and ideas.			Mathematical relationships are evident in such a way as to build understanding of mathematics as a unified whole.
Connections	1	2	3	4
	Mathematical relationships are not required of students or are used primarily to provide a context for the practice of skills or procedures — words wrapped around drill.			Mathematical relationships are integrated with important mathematical ideas, and are integral in required activities, problems, and applications.
Rigor and Depth	1	2	3	4
	Mathematical relationships require the use of skills and procedures, but rarely require the use of any important mathematical ideas or connections outside mathematics.			Mathematical relationships require the broad use of mathematics and integrate the need for important mathematical ideas, skills, and procedures, as well as connections outside mathematics.

order #s compare # patterns

vertical & horizontal add. ten frames, towers

all the ways to make 6 "61" - thinking adding 0

vertical subtract w/ dominos? 111

certain or impossible bar graphs (pick & make) tally charts pieces

#s to 111 add strategies, sub strategies

PS pg 212 213 Relate add to sub

time - hr and ½ hr. even/odd skip counting 2 5 10

estimate 100 counting by 100 → ten frame, hundred chart, cubes

area temperature capacity weight non-standard units of length

fact families to 20

money — def ways to show same amt

use shapes to make new shapes 2D, 3D faces, corners

place value fractions is a set non-unit fractions (⅔, etc)

variety of shapes to show ½ ⅓ ¼

2 digit addition & subtraction

? Commutative & associative ?

traditional approach