Reviewer Name or ID: Novak (October 2016)

Grade: Grade 3/AoD Charte**Mathematics Lesson/Unit Title:** Grade 3 - Understanding Division Unit

I. Alignment to the Depth of the CCSS

The lesson/unit aligns with the letter and spirit of the CCSS:

- ☑ Targets a set of grade-level CCSS mathematics standard(s) to the full depth of the standards for teaching and learning.
- ☐ Standards for Mathematical Practice that are central to the lesson are identified, handled in a grade-appropriate way, and well connected to the content being addressed.
- ☑ Presents a balance of mathematical procedures and deeper conceptual understanding inherent in the CCSS.

Summary of Observations and Suggestions for Improvement:

Observations:
This instructional unit includes appropriate grade-level standards. The individual lessons identify learning targets and references specific content standards in 3.OA. The unit includes opportunities for students to represent division using groupings, arrays, and other representations. The units supports building a conceptual understanding of division and connects to procedural fluency.

The unit does not reference the standards for mathematical practice or explain how students are to develop these behaviors. The instructional unit also shows an over-dependence on a textbook. A textbook is a resource and alone will not fully address the scope and complexity of the content standards.

Expectations:
Ensure that all curricular documents provide alignment and/or details for incorporating the Standards for Mathematical Practice (SMP) into every lesson. These plans should identify specific locations within the lesson where certain math practices will be highlighted, giving the teacher guidance about teacher moves and student actions that are indicative of specific math practices. Include rich mathematical tasks that are aligned ot the standards and support the productive struggle.

Rating for Dimension I: Alignment is non-negotiable and requires a rating of 2 or 3. If rating is 0 or 1 then the review does not continue.

Rating: ☐ 3 ● 2 ☐ 1 ☐ 0

Rating Scale for Dimensions I, II, III, IV:

3: Meets most to all of the criteria in the dimension
2: Meets many of the criteria in the dimension
1: Meets some of the criteria in the dimension
0: Does not meet the criteria in the dimension

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II. Key Shifts in the CCSS

The lesson/unit reflects evidence of key shifts that are reflected in the CCSS:

- ▣ **Focus:** Lessons and units targeting the major work of the grade provide an especially in-depth treatment, with especially high expectations. Lessons and units targeting supporting work of the grade have visible connection to the major work of the grade and are sufficiently brief. Lessons and units do not hold students responsible for material from later grades.
- ❒ **Coherence:** The content develops through reasoning about the new concepts on the basis of previous understandings. Where appropriate, provides opportunities for students to connect knowledge and skills within or across clusters, domains and learning progressions.
- ▣ **Rigor:** Requires students to engage with and demonstrate challenging mathematics with appropriate balance among the following:
  - **Application:** Provides opportunities for students to independently apply mathematical concepts in real-world situations and solve challenging problems with persistence, choosing and applying an appropriate model or strategy to new situations.
  - **Conceptual Understanding:** Develops students' conceptual understanding through tasks, brief problems, questions, multiple representations and opportunities for students to write and speak about their understanding.
  - **Procedural Skill and Fluency:** Expects, supports, and provides guidelines for procedural skill and fluency with core calculations and mathematical procedures (when called for in the standards for the grade) to be performed quickly and accurately.

Summary of Observations and Suggestions for Improvement:

Observations: This unit focuses on the division standards in 3.OA. The unit includes a balance of the components of rigor.

In one lesson, there is a reference to making connections between division and repeated subtraction. Besides that reference, there are no explicit connections to prior learning outlined and no reference is make to how these prerequisite understandings will be pre-assessed. There is no reference of how this understanding will connect to other instructional units within the grade.

Suggestions: Make explicit connections to prior learning and connections to other instructional units.

Rating: ☐ 3 ● 2 ☐ 1 ☐ 0

Rating Scale for Dimensions I, II, III, IV:

3: Meets most to all of the criteria in the dimension
2: Meets many of the criteria in the dimension
1: Meets some of the criteria in the dimension
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III. Instructional Supports

The lesson/unit is responsive to varied student learning needs:

- ■ Includes clear and sufficient guidance to support teaching and learning of the targeted standards, including, when appropriate, the use of technology and media.
- ■ Uses and encourages precise and accurate mathematics, academic language, terminology and concrete or abstract representations (e.g., pictures, symbols, expressions, equations, graphics, models) in the discipline.
- ❒ Engages students in productive struggle through relevant, thought-provoking questions, problems and tasks that stimulate interest and elicit mathematical thinking.
- ■ Addresses instructional expectations and is easy to understand and use.
- ■ Provides appropriate level and type of scaffolding, differentiation, intervention and support for a broad range of learners.
  - Supports diverse cultural and linguistic backgrounds, interests and styles.
  - Provides extra supports for students working below grade level.
  - Provides extensions for students with high interest or working above grade level.

A unit or longer lesson should:

- ❒ Recommend and facilitate a mix of instructional approaches for a variety of learners such as using multiple representations (e.g., including models, using a range of questions, checking for understanding, flexible grouping, pair-share).
- ■ Gradually remove supports, requiring students to demonstrate their mathematical understanding independently.
- ■ Demonstrate an effective sequence and a progression of learning where the concepts or skills advance and deepen over time.
- ■ Expect, support and provide guidelines for procedural skill and fluency with core calculations and mathematical procedures (when called for in the standards for the grade) to be performed quickly and accurately.

Summary of Observations and Suggestions for Improvement:

Observations: The unit overview and individual lessons includes an alignment to the CCSS content standards. It is assumed that each individual lesson will be completed in one day's instructional period, but no time allotments for activities are referenced.

The individual lessons include alignment to standards, learning objective, key vocabulary, key activities, and sample questions for RtI. Vocabulary terms are identified, but not reference is made at how to make these terms accessible for students. The individual lessons do not include a specific reference to the SMP. A variety of physical and visual models are used and most lessons include a real-world application.

Suggestions: The individual lessons should include specific alignment to SMPs. Include a few key perfornance tasks to engage students in problem-solving and productive struggle. Clarify pacing for some learning activities.

Rating: ☐ 3 ● 2 ☐ 1 ☐ 0

Rating Scale for Dimensions I, II, III, IV:

3: Meets most to all of the criteria in the dimension
2: Meets many of the criteria in the dimension
1: Meets some of the criteria in the dimension
0: Does not meet the criteria in the dimension

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IV. Assessment

The lesson/unit regularly assesses whether students are mastering standards-based content and skills:

- ❒ Is designed to elicit direct, observable evidence of the degree to which a student can independently demonstrate the targeted CCSS.
- ▣ Assesses student proficiency using methods that are accessible and unbiased, including the use of grade-level language in student prompts.
- ❒ Includes aligned rubrics, answer keys and scoring guidelines that provide sufficient guidance for interpreting student performance.

A unit or longer lesson should:

- ❒ Use varied modes of curriculum-embedded assessments that may include pre-, formative, summative and self-assessment measures.

Summary of Observations and Suggestions for Improvement:

Observations:
The unit assessment was designed by the textbook vendor. The assessment includes a variety of item types. The assessment does not include a specific alignment to the content standards and learning targets for the unit. The assessment does not include aligned rubrics, answer keys or score guide.

The textbook chapter includes checks for understanding, but it is unclear if/how these are to be used in the unit. The instructional unit does not explicitly mention how students are formatively assessed and how the teacher will respond based on the results of these formative assessments. No pre-assessment is referenced.

Suggestions:
The unit assessment should include a direct alignment to the expectations for student learning as a result of the instructional unit. The instructional unit should include explicit references to appropriate pre-assessment and formative assessments that will guide instruction and how the results of these assessments will influence instruction.

Rating: ☐ 3 ☐ 2 ● 1 ☐ 0

Rating Scale for Dimensions I, II, III, IV:

3: Meets most to all of the criteria in the dimension
2: Meets many of the criteria in the dimension
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Overall Rating: E/I: Exemplar if Improved

Summary Comments
This review is solely based on the Grade 3 Understanding Division unit. No other course information was provided (curricular outline, maps, assessment cycles, etc.) The instructional unit was aligned to the identified content standards.

Rating for Dimension I: Alignment is non-negotiable and requires a rating of 2 or 3. If rating is 0 or 1 then the review does not continue.

Rating Scales

Rating Scale for Dimensions I, II, III, IV:

3: Meets most to all of the criteria in the dimension
2: Meets many of the criteria in the dimension
1: Meets some of the criteria in the dimension
0: Does not meet the criteria in the dimension

Overall Rating for the Lesson/Unit:

E: Exemplar – Aligned and meets most to all of the criteria in dimensions II, III, IV **(total 11 – 12)**
E/I: Exemplar *if* Improved – Aligned and needs some improvement in one or more dimensions **(total 8 – 10)**
R: Revision Needed – Aligned partially and needs significant revision in one or more dimensions **(total 3 – 7)**
N: Not Ready to Review – Not aligned and does not meet criteria **(total 0 – 2)**

Rating Descriptors

Descriptors for Dimensions I, II, III, IV:

3: **Exemplifies CCSS Quality -** meets the standard described by criteria in the dimension, as explained in criterion-based observations.
2: **Approaching CCSS Quality -** meets many criteria but will benefit from revision in others, as suggested in criterion-based observations.
1: **Developing toward CCSS Quality -** needs significant revision, as suggested in criterion-based observations.
0: **Not representing CCSS Quality -** does not address the criteria in the dimension.

Descriptor for Overall Ratings:

E: Exemplifies CCSS Quality – Aligned and exemplifies the quality standard and exemplifies most of the criteria across Dimensions II, III, IV of the rubric.
E/I: Approaching CCSS Quality – Aligned and exemplifies the quality standard in some dimensions but will benefit from some revision in others.
R: Developing toward CCSS Quality – Aligned partially and approaches the quality standard in some dimensions and needs significant revision in others.
N: Not representing CCSS Quality – Not aligned and does not address criteria.