# EQuIP Review Feedback

**Lesson/Unit Name:** LZ Grade Unit 1 Ratios
**Content Area:** Mathematics
**Grade Level:** 6

**Overall Rating:**

E

Exemplar

## Dimension I – Alignment to the Depth of the CCSS

| | |
|---|---|
| *The lesson/unit aligns with the letter and spirit of the CCSS:*<br>✓ Targets a set of grade-level CCSS mathematics standard(s) to the full depth of the standards for teaching and learning.<br>✓ 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.<br>✓ Presents a balance of mathematical procedures and deeper conceptual understanding inherent in the CCSS. | This unit aligns with the following standards: 6.RP.A.1, 6.RP.A.3a, 6.RP.A.3d. Each standard is identified in the corresponding lesson. Within the ten lessons in this unit these standards are addressed to the full depth.<br><br>The Standards for Mathematical Practice included and described in these lessons are SMP.1 (Make sense of problems and persevere in solving them); SMP.4 (Model with mathematics); and SMP.5 (Use appropriate tools strategically). However, other Standards for Mathematical Practice were developed throughout the unit.<br><br>The assignments and activities provide ample opportunities for student practice. There is also leeway for the teacher to provide more or less support for students depending on their level of understanding. All questions, explanations, and progressions are appropriate for the targeted standards of this grade level.<br><br>One concern for possible student misunderstanding would be the content in Lesson 2. The scenario explains that there are 2 boys for every girl on the school track team. It should be made clear to students that this does not mean there are only 3 students on the team. As long as the ratio of boys to girls remains 2:1 there can be any appropriate number of team members. This would be an interesting and challenging discussion as to the possible numbers of students that could be on the team. |
| Rating: **3 – Meets most to all of the criteria in the dimension** | |

## Dimension II – Key Shifts the CCSS

| | |
|---|---|
| *The lesson/unit reflects evidence of key shifts that are reflected in the CCSS:*<br>✓ **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.<br>✓ **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 | The targeted standards of this unit are included in the major work for grade 6 as described by the Common Core State Standards. This work is foundational for future mathematics study in grades 7 and 8 and high school. Students must apply their understandings of multiplication, division, and equivalent values from elementary school.<br><br>One word of caution: The Unit overview contains wording that is misleading for teachers; "Students need to understand that equivalent fractions have the same value and how to create equivalent fractions by simplifying; (Grade 3, Unit 10; 3.NF.A)." The CCSS Math do not refer to 'simplifying' fractions. According to the progressions documents, there is no mathematical reason why fractions must be written in simplified form, although it may be convenient to do so in some cases. "Students begin in grade 4 to use their understanding of equivalent fractions to compare fractions with different numerators and different denominators (4.NF.2) and to generate equivalent fractions. Grade 4 students learn a fundamental property of equivalent fractions: multiplying the numerator and denominator of a fraction by the same non-zero whole number results |

| | |
|---|---|
| within or across clusters, domains and learning progressions.<br>✓ **Rigor:** Requires students to engage with and demonstrate challenging mathematics with appropriate balance among the following:<br>– **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.<br>– **Conceptual Understanding:** Develops students' conceptual understanding through tasks, brief problems, questions, multiple representations and opportunities for students to write and speak about their understanding.<br>– **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. | in a fraction that represents the same number as the original fraction." (CCSS Progressions 3-5 Number and fractions). It is suggested for improvement with coherence and conceptual understanding in lessons 2 and 3 to avoid using the term simplifying in terms of fractions and ratios.<br><br>Coherence is apparent as new concepts build upon each other as students and the teacher progress through the ten lessons within this unit. These foundational concepts will be built upon as students further develop their understanding of proportional reasoning in future lessons.<br><br>The mathematics in these lessons becomes more challenging as students progress through them. The problems and suggested questions to ask students required rigorous problem solving and application of previous understandings. Teachers have the option of grouping students for discussion and cooperative work as he or she sees fit. There is ample opportunity for students to build procedural skill and fluency as they are provided with increasingly more challenging questions. |
| Rating: **3 – Meets most to all of the criteria in the dimension** | |

**Dimension III – Instructional Supports**

| | |
|---|---|
| *The lesson/unit is responsive to varied student learning needs:*<br>✓ Includes clear and sufficient guidance to support teaching and learning of the targeted standards, including, when appropriate, the use of technology and media.<br>✓ 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.<br>✓ Engages students in productive struggle through relevant, thought-provoking questions, problems and tasks that stimulate interest and elicit mathematical thinking.<br>✓ Addresses instructional expectations and is easy to understand and use.<br>✓ Provides appropriate level and type of scaffolding, differentiation, intervention and support for a broad range of learners.<br>– Supports diverse cultural and linguistic backgrounds, interests and styles.<br>– Provides extra supports for students working below grade level.<br>– Provides extensions for students with high interest or working above grade level. | This unit meets all of the criteria for instructional supports. There is ample guidance to support teaching and learning of the standards that this unit addresses. Once familiar with the features of the first lesson in the unit, teachers will have enough familiarity to know what upcoming lessons will look like in terms of lesson plans, additional materials, and information about the lesson. Each Lesson is provided with the lesson objectives, the content and practice standards the lesson addresses, the concepts and skills student will be learning and using, key vocabulary, and special materials used in the lesson. Each lesson provides the teacher with resources for interventions for students who may be struggling as well as for those who are ready to go beyond the lesson.<br><br>A Task Implementation Guide is provided in each lesson that includes samples of student work, as well as questions and prompts. Each proposed question or prompt includes an anticipated answer to help teachers know what to expect when their students answer the question. This guide includes examples of correct student responses, as well as examples of work that include common mistakes or misconceptions. The questions provide for clarifying the student's approach, assessing the student's understanding of the work, or advancing the student's thinking.<br><br>Each lesson begins with a video that introduces an application task aligned to the standard(s) that the lesson addresses. Each video is accompanied by questions the teacher can pose to direct a student's thinking toward important aspects of the video.<br><br>There is a mix of instructional approaches within the 3 types of lessons: Conceptual Understanding Lessons introduce new learning through |

| | |
|---|---|
| *A unit or longer lesson should:*<br>✓ 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).<br>✓ Gradually remove supports, requiring students to demonstrate their mathematical understanding independently.<br>✓ Demonstrate an effective sequence and a progression of learning where the concepts or skills advance and deepen over time.<br>✓ 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. | productive struggle on a rich task; Fluency/Procedural Skills Lessons provide students with opportunities to practice and/or formalize their new knowledge and understanding; Application Lessons provide students with the opportunity to apply these new concepts and skills. Within these three lesson types, there are opportunities, for ongoing formative assessment and for using student work to make instructional decisions.<br><br>The lessons integrate research-based strategies for supporting English Language Learners and students with special needs. Examples of strategies in the lessons for supporting ELLs include student grouping, connecting to prior knowledge, visual representations, practice, and summarizing. Additional strategies for supporting students with special needs include feedback, modeling, and prompts. |
| Rating: **3 – Meets most to all of the criteria in the dimension** | |

**Dimension IV – Assessment**

| | |
|---|---|
| *The lesson/unit regularly assesses whether students are mastering standards-based content and skills:*<br>✓ Is designed to elicit direct, observable evidence of the degree to which a student can independently demonstrate the targeted CCSS.<br>✓ Assesses student proficiency using methods that are accessible and unbiased, including the use of grade-level language in student prompts.<br>✓ Includes aligned rubrics, answer keys and scoring guidelines that provide sufficient guidance for interpreting student performance.<br>*A unit or longer lesson should:*<br>✓ Use varied modes of curriculum-embedded assessments that may include pre-, formative, summative and self-assessment measures. | Each lesson and assessments in this unit are designed to determine if students can independently demonstrate proficiency on the standards 6.RP.A.1, 6.RP.A.3a, and 6.RP.A.3d at the conceptual, procedure and fluency, and application levels. Assessment strategies in all lessons of the unit include: the use of practice problems, exit tickets, and additional practice. Additionally, there is an implementation guide which assists the educator in monitoring student understanding throughout the lesson, looking for misconceptions and providing guidance for interventions and possible extensions.<br><br>The assessment methods are easily accessible to educators in a timely and meaningful manner. They are grade-level appropriate and accessible for all students.<br><br>The annotated answer keys are available for each assessment piece that also provides guidance for interpreting student performance, except the additional practice and summative assessments that were completed electronically. There was no evidence of access to those answer keys; however, it is assumed that they exist, just not available in the preview mode.<br><br>The lessons provide connections to prerequisite understandings that students need and strategies for the educator to determine if students need front-loading or interventions. Each lesson is built around the idea of formative assessments with the exit tickets at the end of each lesson. The frequent and ongoing discussions provide students with numerous opportunities for self-assessment. There is a summative assessment at the conclusion of the unit that is a comprehensive measure of the desired outcomes within the focus standard.<br><br>The collective set of assessments is of high quality that provides students and educators with the data needed to provide the appropriate instructional measures that best fit the students. |
| Rating: **3 – Meets most to all of the criteria in the dimension** | |

## Summary Comments

This is an exemplary unit that addresses all of the critical criteria identified in the rubric. The unit provides detailed direction and support for the educator to be able to implement the lessons. The unit is a comprehensive, engaging, and challenging set of strategies and opportunities for all students to find success in learning the identified content in the identified standards. The standards for mathematical practices are fully embedded into the manner in which students learn the content as they are developing their proficiency in the standards content. The set of assessments provide ample opportunities for students and educators to monitor and respond to student performance, with clear guidance.

***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.