



UNIT 1 – THE CONCEPT OF CONGRUENCE

Eureka Math Module 2, Topics A-C

(Approximately 18 Days • 8/12/19-9/5/19)

Unit 1 Overview

In this unit, students will use the properties of translations, reflections, and rotations to analyze the concept of congruence. They will describe the effects of translations, reflections, and rotations on two-dimensional figures and use these rigid transformations to verify two figures are congruent. In addition, students will deepen their understanding of angle relationships including angle sums of triangles, exterior angles of triangles, and angles formed when parallel lines are cut by a transversal. (Please note, the angle-angle criterion for similarity will be addressed during Unit 2.) Specifically, students will:

- understand that rigid motions preserve angle measurements, line segment lengths, and parallel lines.
- understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations.
- describe a series of rigid motions to verify two figures are congruent.
- describe the effect of translations, reflections, and rotations on two-dimensional figures using coordinates.
- prove the sum of a triangle's interior angles is 180° .
- prove the measure of a triangle's exterior angle is equal to the sum of the measures of the triangle's two remote interior angles.
- use informal arguments to establish facts about the angles formed when parallel lines are cut by a transversal.

Focus Standards	Addressed in Eureka Math Resource – Use of supplemental resources is not needed ■ Partially Addressed in Eureka Math Resource – Use of supplemental resources may/may not be needed ● Not Adequately Addressed in Eureka Math Resource – Use of supplemental resources is necessary	
	LOUISIANA CONNECTORS When teaching students with significant disabilities who are eligible to take the LEAP Connect assessment, use the specific Louisiana Connectors that are aligned to the unit's focus standards.	
8.G.A.1	Verify experimentally the properties of rotations, reflections, and translations: <ol style="list-style-type: none"> Lines are taken to lines, and line segments to line segments of the same length. Angles are taken to angles of the same measure. Parallel lines are taken to parallel lines. 	Remediation Standard(s): 7.G.A.2, 7.G.B.5
8.G.A.2	Explain that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; ■ given two congruent figures, describe a sequence that exhibits the congruence between them. (Rotations are only about the origin and reflections are only over the y -axis and x -axis in Grade 8.)	Remediation Standard(s): None
8.G.A.3	Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates. (Rotations are only about the origin, dilations only use the origin as the center of dilation, and reflections are only over the y -axis and x -axis in Grade 8.) ■	Remediation Standard(s): 6.G.A.3
8.G.A.5	Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles. <i>For example, arrange three copies of the same triangle so that the sum of the three angles appears to form a line, and give an argument in terms of transversals why this is so.</i> <i>Please note, Unit 1 focuses on facts about the angle sum and exterior angles of triangles and the angles created when parallel lines are cut by a transversal. Students will establish facts about the angle-angle criterion for similarity during Unit 2.</i>	Remediation Standard(s): None

Focus Standards for Mathematical Practice	
SMP.2	Reason abstractly and quantitatively.
SMP.3	Construct viable arguments and critique the reasoning of others. Aligned ELP Connector(s): ELPC 6-8.4, ELPC 6-8.6, ELPC 6-8.9
SMP.5	Use appropriate tools strategically.
SMP.6	Attend to precision. Aligned ELP Connector(s): ELPC 6-8.2, ELPC 6-8.3, ELPC 6-8.4, ELPC 6-8.7, ELPC 6-8.10

Unit Terms & Tools	Spanish cognates are included (if applicable) for Tier 3 and Tier 2 vocabulary terms. Spanish cognates will be shown as follows: Vocab Term/Spanish Cognate.
New Unit Terms (Tier 3 Vocabulary)	Angle Preserving, Basic Rigid Motion, Between, Congruence, Congruent/Congruente, Directed Line Segment, Distance Preserving, Exterior Angle/Ángulo Exterior, Reflection/Reflección, Rotation/Rotación, Sequence (Composition) of Transformations, Transformation/Transformación, Translation, Transversal, and Vector
Familiar Terms (Tier 3 Vocabulary)	Adjacent Angles, Angle/Ángulo, Area/Área, Complementary Angles, Line/Línea, Line Segment/Segmento de Línea, Parallel Lines/Líneas Paralelas, Perpendicular Lines, Perimeter/Perímetro, Quadrilateral/Cuadrilátero, Ray, Supplementary Angles, Triangle/Triángulo, and Vertical Angles/Ángulo Vertical
Cross-Curricular Terms (Tier 2 Vocabulary)	Corresponding/Correspondiente, Diagram/Diagrama, Distance/Distancia, Rotation/Rotación, Transformation/Transformación, and Units/Unidades
Suggested Tools	Transparency or Patty Paper, Wet or Dry Erase Markers for Use with Transparency, Optional: Geometric Software, and Composition of Rigid Motions Video (http://youtu.be/O2XPy3ZLU7Y)

Sample Calendar	Coding: 1.1-A represents Eureka Math Module 1.Lesson 1 – Topic A • Addressed standard(s) listed below lesson				
	Please note, this calendar suggests lessons that can be combined and taught in one class period. It also includes remediation and extension lessons that are recommended for classroom use. While this sample calendar helps guide instructional timing, it does not dictate exactly what lesson a teacher should be addressing on a given day. In addition, included FLEX days should be used for remediation, practice, enrichment, assessment, or other instructional activities.				
Week Beginning:	Monday	Tuesday	Wednesday	Thursday	Friday
August 5th	No school for students	No school for students	No school for students	FLEX (First day of school for students)	LEAP 360 Diagnostic (Window provided for administration)
August 12th	2.1-A 8.G.A.1, 8.G.A.2	2.2-A 8.G.A.1	2.3-A 8.G.A.1	2.4-A 8.G.A.1	2.5-A 8.G.A.1
August 19th	2.6-A 8.G.A.1, 8.G.A.3	FLEX	2.7-B 8.G.A.1, 8.G.A.2	2.8-B 8.G.A.1, 8.G.A.2	2.9-B 8.G.A.1, 8.G.A.2
August 26th	2.10-B 8.G.A.2	FLEX	2.11-C 8.G.A.2	2.12-C 8.G.A.5	FLEX
September 2nd	Labor Day (Holiday)	2.13-C 8.G.A.5	2.14-C 8.G.A.5	FLEX	Unit 2 Begins

Additional Information

<p>Unit Notes</p>	<p>Module 2 is visual and includes many hands-on activities. Since some students find the content highly engaging due to the visuals and hands-on work, the state recommends that this module (specifically Topics A-C) be addressed at the start of the year.</p> <p>Based on the state's recommended year-long pacing, Topic D will be taught during Unit 4 since the lessons in this topic focus on Pythagorean Theorem.</p> <p>To ensure the unit is hands-on, students should be given multiple opportunities to manipulate the figures. The following materials are needed for many of the lessons in this unit: transparencies, dry erase markers, and pieces of felt cloth/erasers. Patty paper may be used in place of transparencies, if needed.</p> <p>While teaching Lesson 3, it is recommended that teachers incorporate questions 1-5 from the Problem Set since the provided task includes a coordinate plane. During Lesson 13, teachers are encouraged to use question 3 from the Problem Set.</p> <p>Please note, rotations are only about the origin and reflections are only over the y-axis and x-axis in standards 8.G.A.2 and 8.G.A.3.</p>										
<p>Additional Lessons (Optional for remediation and enrichment)</p>	<p>All lessons in Topics A-C are taught during this module.</p>										
<p>Remediation Support (LDOE Remediation Guide)</p>	<p>Teachers may choose appropriate questions, activities, and/or lessons from the table below to support students who have prior unfinished learning. Teachers should be strategic when choosing problems from the suggested lessons in order to differentiate instruction to have the most impact on student achievement. For additional remediation support, teachers are encouraged to utilize the Coherence Map and the Louisiana Department of Education's Remediation Guides and Tools.</p> <table border="1" data-bbox="466 1042 1948 1344"> <thead> <tr> <th data-bbox="466 1042 739 1110">GRADE 8 TOPIC OF INSTRUCTION</th> <th data-bbox="739 1042 1373 1110">REMEDIAL SKILL</th> <th data-bbox="1373 1042 1948 1110">SUPPORT IN EUREKA MATH</th> </tr> </thead> <tbody> <tr> <td data-bbox="466 1110 739 1344" rowspan="3"> <p>Topic A Definitions and properties of the basic rigid motions</p> </td> <td data-bbox="739 1110 1373 1179"> <p>Drawing geometric shapes with given conditions (7.G.A.2)</p> </td> <td data-bbox="1373 1110 1948 1179"> <p>Grade 7, Module 6, Topic B, Lessons 6-12</p> </td> </tr> <tr> <td data-bbox="739 1179 1373 1247"> <p>Drawing polygons in the coordinate plane and finding the length of a polygon's side (6.G.A.3)</p> </td> <td data-bbox="1373 1179 1948 1247"> <p>Grade 6, Module 5, Topic B, Lessons 7-10</p> </td> </tr> <tr> <td data-bbox="739 1247 1373 1344"> <p>Understanding of angles (supplementary, complementary, vertical, and adjacent) and finding missing angle measurements (7.G.B.5)</p> </td> <td data-bbox="1373 1247 1948 1344"> <p>Grade 7, Module 3, Topic B, Lessons 10-11 Grade 7, Module 6, Topic A, Lessons 1-4</p> </td> </tr> </tbody> </table>	GRADE 8 TOPIC OF INSTRUCTION	REMEDIAL SKILL	SUPPORT IN EUREKA MATH	<p>Topic A Definitions and properties of the basic rigid motions</p>	<p>Drawing geometric shapes with given conditions (7.G.A.2)</p>	<p>Grade 7, Module 6, Topic B, Lessons 6-12</p>	<p>Drawing polygons in the coordinate plane and finding the length of a polygon's side (6.G.A.3)</p>	<p>Grade 6, Module 5, Topic B, Lessons 7-10</p>	<p>Understanding of angles (supplementary, complementary, vertical, and adjacent) and finding missing angle measurements (7.G.B.5)</p>	<p>Grade 7, Module 3, Topic B, Lessons 10-11 Grade 7, Module 6, Topic A, Lessons 1-4</p>
GRADE 8 TOPIC OF INSTRUCTION	REMEDIAL SKILL	SUPPORT IN EUREKA MATH									
<p>Topic A Definitions and properties of the basic rigid motions</p>	<p>Drawing geometric shapes with given conditions (7.G.A.2)</p>	<p>Grade 7, Module 6, Topic B, Lessons 6-12</p>									
	<p>Drawing polygons in the coordinate plane and finding the length of a polygon's side (6.G.A.3)</p>	<p>Grade 6, Module 5, Topic B, Lessons 7-10</p>									
	<p>Understanding of angles (supplementary, complementary, vertical, and adjacent) and finding missing angle measurements (7.G.B.5)</p>	<p>Grade 7, Module 3, Topic B, Lessons 10-11 Grade 7, Module 6, Topic A, Lessons 1-4</p>									

Assessment Information (Mid-Module and End-of-Module)	<p>Tasks from the mid-module assessment are designed to be given after completing Topic B. To ensure the assessment is aligned to the LSSM, it is suggested that teachers:</p> <ul style="list-style-type: none">• omit questions 1a and 1b.• modify questions 1c, 2, and 3a so that rotations are about the origin and reflections are over the y-axis or x-axis. <p>Tasks from the end-of-module assessment are designed to be given after completing Topic C. To ensure the tasks are aligned to the LSSM, it is suggested that teachers omit question 1.</p>
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UNIT 2 – SIMILARITY

Eureka Math Module 3, Topics A-B

(Approximately 12 Days • 9/6/19-9/25/19)

Unit 2 Overview

In this unit, students will explore dilations and similarity. They will learn that dilations are non-rigid motions and be able to describe the effects of a dilation on a two-dimensional figure. Students will also understand that a figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations. In addition, students will establish facts about the angle-angle criterion for similarity of triangles. (Please note, students deepened their understanding of angle relationships including the angle sum of triangles, exterior angles of triangles, and angles formed when parallel lines are cut by a transversal during Unit 1.) Specifically, students will:

- describe the effects of a dilation on a two-dimensional figure using coordinates.
- understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of transformations.
- describe a sequence that exhibits the similarity between two figures.
- understand that two triangles with two pairs of equal angles are similar.

Focus Standards	<p>Addressed in Eureka Math Resource – Use of supplemental resources is not needed</p> <p>■ Partially Addressed in Eureka Math Resource – Use of supplemental resources may/may not be needed</p> <p>● Not Adequately Addressed in Eureka Math Resource – Use of supplemental resources is necessary</p>	
	<p>LOUISIANA CONNECTORS</p> <p>When teaching students with significant disabilities who are eligible to take the LEAP Connect assessment, use the specific Louisiana Connectors that are aligned to the unit's focus standards.</p>	
8.G.A.3	<p>Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates. (Rotations are only about the origin, dilations only use the origin as the center of dilation, and reflections are only over the y-axis and x-axis in Grade 8.) ■</p>	<p>Remediation Standard(s): 6.G.A.3</p>
8.G.A.4	<p>Explain that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations; ■ given two similar two-dimensional figures, describe a sequence that exhibits the similarity between them. (Rotations are only about the origin, dilations only use the origin as the center of dilation, and reflections are only over the y-axis and x-axis in Grade 8.)</p>	<p>Remediation Standard(s): None</p>

8.G.A.5	<p>Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles. <i>For example, arrange three copies of the same triangle so that the sum of the three angles appears to form a line, and give an argument in terms of transversals why this is so.</i></p> <p><i>Please note, Unit 2 focuses on the angle-angle criterion for similarity. Students established facts about the angle sum and exterior angle of triangles and the angles created when parallel lines are cut by a transversal during Unit 1.</i></p>	Remediation Standard(s): None
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Focus Standards for Mathematical Practice	
SMP.3	<p>Construct viable arguments and critique the reasoning of others.</p> <p>Aligned ELP Connector(s): ELPC 6-8.4, ELPC 6-8.6, ELPC 6-8.9</p>
SMP.6	<p>Attend to precision.</p> <p>Aligned ELP Connector(s): ELPC 6-8.2, ELPC 6-8.3, ELPC 6-8.4, ELPC 6-8.7, ELPC 6-8.10</p>
SMP.8	<p>Look for and express regularity in repeated reasoning.</p>

Unit Terms & Tools	Spanish cognates are included (if applicable) for Tier 3 and Tier 2 vocabulary terms. Spanish cognates will be shown as follows: Vocab Term/Spanish Cognate.
New Unit Terms (Tier 3 Vocabulary)	Dilation, Scale Drawing, Similar, and Similarity Transformation
Familiar Terms (Tier 3 Vocabulary)	Angle-Preserving and Scale Drawing
Cross-Curricular Terms (Tier 2 Vocabulary)	Effect/Efecto, Exterior/Exterior, Figure/Figura, Shapes, and Similar/Similar
Suggested Tools	Compass, Transparency or Patty Paper, Wet or Dry Erase Markers for Use with Transparency, Optional: Geometric Software, Ruler, and Protractor

Sample Calendar

Coding: 1.1-A represents Eureka Math Module 1.Lesson 1 – Topic A • Addressed standard(s) listed below lesson

Please note, this calendar suggests lessons that can be combined and taught in one class period. It also includes remediation and extension lessons that are recommended for classroom use. While this sample calendar helps guide instructional timing, it does not dictate exactly what lesson a teacher should be addressing on a given day. In addition, included FLEX days should be used for remediation, practice, enrichment, assessment, or other instructional activities.

Week Beginning:	Monday	Tuesday	Wednesday	Thursday	Friday
September 2 nd	Labor Day	Unit 1 Ends			3.1-A 8.G.A.4
September 9 th	FLEX (Recommended 3.4-A Problem Set) 8.G.A.3	3.5-A 8.G.A.3	3.6-A 8.G.A.3	FLEX	3.8-B 8.G.A.3, 8.G.A.4
September 16 th	District PD (Student Holiday)	3.9-B 8.G.A.3, 8.G.A.4	FLEX	FLEX	Benchmark 1 Assessment (Window provided for administration)
September 23 rd	3.10-B 8.G.A.5	FLEX	FLEX	Unit 3 Begins	

Additional Information

Unit Notes	<p>Since Module 3 builds on the content discussed in Module 2, the state recommends that Topics A-B from Module 3 take place after completing Module 2.</p> <p>Based on the state's recommended year-long pacing, Topic C will be taught during Unit 4 since the lessons in this topic focus on Pythagorean Theorem.</p> <p>As seen in the sample calendar, the Benchmark Assessment takes place during this unit. The assessment will address skills from Unit 1 and Unit 2 (Part A). To ensure students are prepared for the assessment, the following topics and standards from Module 3 must be addressed prior to administering the assessment (suggested 9/20).</p> <ul style="list-style-type: none">Topic A – DilationTopic B – Similar figures (Lessons 8-9 only)Standards – 8.G.A.3 and 8.G.A.4 <p>Lesson 4 is considered optional for enrichment by the state since it focuses on verifying experimentally the properties of the fundamental theorem of similarity (FTS), which extends beyond the explicit expectations of the 8.G.A standards. However, some teachers have found the questions in the Problem Set useful as a foundation to the work taking place in Lessons 5 and 6. The Problem Set has been included in the sample calendar as an optional activity on a FLEX day. Lesson 5 is based on the FTS that is discussed in Lesson 4. Since the FTS is not an explicit expectation of the 8.G.A standards, some parts of Lesson 5 may need to be modified.</p> <p>Please note, dilations only use the origin as the center of dilation in Grade 8 according to standards 8.G.A.3 and 8.G.A.4.</p>
Additional Lessons (Optional for remediation and enrichment)	<p>The following lessons are not included in the sample calendar. The decision to include these lessons should be made at the teacher level.</p> <p>Lessons 2-4, 7, & 11-12: The content in these lessons extends beyond the explicit expectations of the 8.G.A standards. These lessons are optional enrichment activities.</p>

<p>Remediation Support (LDOE Remediation Guide)</p>	<p>Teachers may choose appropriate questions, activities, and/or lessons from the table below to support students who have prior unfinished learning. Teachers should be strategic when choosing problems from the suggested lessons in order to differentiate instruction to have the most impact on student achievement. For additional remediation support, teachers are encouraged to utilize the Coherence Map and the Louisiana Department of Education's Remediation Guides and Tools.</p>
<p>Assessment Information (Mid-Module and End-of-Module)</p>	<p>Tasks from the mid-module assessment are designed to be given after completing Topic A. To ensure the assessment is aligned to the LSSM, it is suggested that teachers omit questions 1 and 3b.</p> <p>Tasks from the end-of-module assessment are designed to be given after completing Topic B. To ensure the assessment is aligned to the LSSM, it is suggested that teachers modify question 1a by using the origin as the center of dilation.</p>

GRADE 8 TOPIC OF INSTRUCTION	REMEDIAL SKILL	SUPPORT IN EUREKA MATH
Topic A Dilation	Drawing polygons in the coordinate plane and finding the length of a polygon's side (6.G.A.3)	Grade 6, Module 5, Topic B, Lessons 7-10
Topic B Similar figures	Drawing polygons in the coordinate plane and finding the length of a polygon's side (6.G.A.3)	Grade 6, Module 5, Topic B, Lessons 7-10

UNIT 3 – INTEGER EXPONENTS AND SCIENTIFIC NOTATION

Eureka Math Module 1, Topics A-B

(Approximately 15 Days • 9/26/19-10/18/19)

Unit 3 Overview

In this unit, students are introduced to properties of integer exponents. While students have previously worked with positive integer exponents, they will now expand their knowledge to include negative integer exponents. They will also continue to use exponents equal to zero. In addition, students will develop an understanding of how scientific notation can be used to express very large or very small numbers. Specifically, students will:

- use the properties of integer exponents (laws of exponents) to generate equivalent numerical expressions.
- use scientific notation to estimate very large or very small numbers and express how many times as much one number is than another number.
- perform operations with numbers expressed in scientific notation.
- choose units of appropriate size for measurements expressed in scientific notation.

Focus Standards	<p>Addressed in Eureka Math Resource – Use of supplemental resources is not needed ■ Partially Addressed in Eureka Math Resource – Use of supplemental resources may/may not be needed ● Not Adequately Addressed in Eureka Math Resource – Use of supplemental resources is necessary</p>	
	<p>LOUISIANA CONNECTORS When teaching students with significant disabilities who are eligible to take the LEAP Connect assessment, use the specific Louisiana Connectors that are aligned to the unit's focus standards.</p>	
8.EE.A.1	Know and apply the properties of integer exponents to generate equivalent numerical expressions. <i>For example, $3^2 \times 3^{-5} = 3^{-3} = 1/3^3 = 1/27$.</i>	Remediation Standard(s): 6.EE.A.1
8.EE.A.3	Use numbers expressed in the form of a single digit times an integer power of 10 to estimate very large or very small quantities, and to express how many times as much one is than the other. <i>For example, estimate the population of the United States as 3×10^8 and the population of the world as 7×10^9, and determine that the world population is more than 20 times larger.</i>	Remediation Standard(s): 4.OA.A.2, 5.NBT.A.2
8.EE.A.4	Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. ■ Use scientific notation and choose units of appropriate size ■ for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology. ■	Remediation Standard(s): 7.EE.B.3

Focus Standards for Mathematical Practice

SMP.2	Reason abstractly and quantitatively.
SMP.3	Construct viable arguments and critique the reasoning of others. Aligned ELP Connector(s): ELPC 6-8.4, ELPC 6-8.6, ELPC 6-8.9
SMP.6	Attend to precision. Aligned ELP Connector(s): ELPC 6-8.2, ELPC 6-8.3, ELPC 6-8.4, ELPC 6-8.7, ELPC 6-8.10
SMP.7	Look for and make use of structure.
SMP.8	Look for and express regularity in repeated reasoning.

Unit Terms & Tools	Spanish cognates are included (if applicable) for Tier 3 and Tier 2 vocabulary terms. Spanish cognates will be shown as follows: Vocab Term/Spanish Cognate.
New Unit Terms (Tier 3 Vocabulary)	Order of Magnitude and Scientific Notation
Familiar Terms (Tier 3 Vocabulary)	Base/Base, Equivalent Fractions, Expanded Form (of Decimal Numbers), Exponent/Exponente, Exponential Notation, Integer, Power/Potencia, Square and Cube (of a number), and Whole Number
Cross-Curricular Terms (Tier 2 Vocabulary)	Computation, Consider/Considerar, Estimate, Expand/Expander, and Power/Potencia
Suggested Tools	Scientific Calculator

Sample Calendar		Coding: 1.1-A represents Eureka Math Module 1.Lesson 1 – Topic A • Addressed standard(s) listed below lesson				
		Please note, this calendar suggests lessons that can be combined and taught in one class period. It also includes remediation and extension lessons that are highly recommended for classroom use. While this sample calendar helps guide instructional timing, it does not dictate exactly what lesson a teacher should be addressing on a given day. In addition, included FLEX days should be used for remediation, practice, enrichment, assessment, or other instructional activities.				
Week Beginning:	Monday	Tuesday	Wednesday	Thursday	Friday	
September 23rd	Unit 2 Ends			1.1-A (Remediation)	1.2-A (Focus on Multiplication) 8.EE.A.1	
September 30th	1.2-A (Focus on Division) 8.EE.A.1	1.3-A 8.EE.A.1	1.4-A 8.EE.A.1	1.5-A 8.EE.A.1	FLEX	
October 7th	1.7-B (Remediation)	1.8-B 8.EE.A.3, 8.EE.A.4	1.9-B 8.EE.A.3, 8.EE.A.4 <i>Marking Period Ends</i>	Fall Break (Holiday)	Fall Break (Holiday)	
October 14th	1.10-B 8.EE.A.4	FLEX	1.12-B 8.EE.A.3, 8.EE.A.4	1.13-B 8.EE.A.3, 8.EE.A.4	FLEX	
October 21st	Unit 4 Begins					

Additional Information	
Unit Notes	<p>After completing the units on congruency and similarity (Modules 2 and 3) in Grade 8, the state recommends that students address the content in Module 1 (integer exponents and scientific notation).</p> <p>Lessons 1 and 7 are aligned to prior grade level standards. However, both lessons incorporate exponents with negative valued bases. Since this is a new skill for most students, teachers are encouraged to utilize the lessons. These lessons are included in the sample calendar.</p> <p>Lesson 2 addresses multiplication of numbers in exponential form. It also focuses on division of numbers in exponential form. As shown in the sample calendar, teachers are encouraged to teach this lesson over two class periods (target multiplication on day one and discuss division on day two).</p> <p>Module 1 includes several fluency activities, including sprints and a rapid white board exchange. Directions for administering these fluency activities are included at the start of the module (pp. 5-7 of the Teacher Edition).</p>

<p>Additional Lessons (Optional for remediation and enrichment)</p>	<p>The following lessons are not included in the sample calendar. The decision to include these lessons should be made at the teacher level.</p> <p>Lessons 6 & 11: The content in these lessons extends beyond the explicit expectations of the target standards. These lessons are optional enrichment activities.</p>													
<p>Remediation Support (LDOE Remediation Guide)</p>	<p>Teachers may choose appropriate questions, activities, and/or lessons from the table below to support students who have prior unfinished learning. Teachers should be strategic when choosing problems from the suggested lessons in order to differentiate instruction to have the most impact on student achievement. For additional remediation support, teachers are encouraged to utilize the Coherence Map and the Louisiana Department of Education's Remediation Guides and Tools.</p> <table border="1" data-bbox="464 505 1965 1003"> <thead> <tr> <th data-bbox="464 505 737 570">GRADE 8 TOPIC OF INSTRUCTION</th> <th data-bbox="737 505 1373 570">REMEDIAL SKILL</th> <th data-bbox="1373 505 1965 570">SUPPORT IN EUREKA MATH</th> </tr> </thead> <tbody> <tr> <td data-bbox="464 570 737 737"> <p>Topic A Exponential notation and properties of integer exponents</p> </td> <td data-bbox="737 570 1373 737"> <p>Understanding of whole number exponents, including writing expressions in expanded form (6.EE.A.1)</p> </td> <td data-bbox="1373 570 1965 737"> <p>Grade 6, Module 4, Topic B, Lesson 5</p> </td> </tr> <tr> <td data-bbox="464 737 737 1003" rowspan="3"> <p>Topic B Magnitude and scientific notation</p> </td> <td data-bbox="737 737 1373 802"> <p>Using multiplicative comparison to solve word problems (4.OA.A.2)</p> </td> <td data-bbox="1373 737 1965 802"> <p>Grade 4, Module 5, Topic G, Lesson 39</p> </td> </tr> <tr> <td data-bbox="737 802 1373 899"> <p>Understanding of what happens when multiplying or dividing by powers of 10 (5.NBT.A.2)</p> </td> <td data-bbox="1373 802 1965 899"> <p>Grade 5, Module 2, Topic A, Lesson 1</p> </td> </tr> <tr> <td data-bbox="737 899 1373 1003"> <p>Solving problems with numbers shown in different forms and converting between the various forms (7.EE.B.3)</p> </td> <td data-bbox="1373 899 1965 1003"> <p>Grade 7, Module 3, Topic B, Lessons 7-9</p> </td> </tr> </tbody> </table>	GRADE 8 TOPIC OF INSTRUCTION	REMEDIAL SKILL	SUPPORT IN EUREKA MATH	<p>Topic A Exponential notation and properties of integer exponents</p>	<p>Understanding of whole number exponents, including writing expressions in expanded form (6.EE.A.1)</p>	<p>Grade 6, Module 4, Topic B, Lesson 5</p>	<p>Topic B Magnitude and scientific notation</p>	<p>Using multiplicative comparison to solve word problems (4.OA.A.2)</p>	<p>Grade 4, Module 5, Topic G, Lesson 39</p>	<p>Understanding of what happens when multiplying or dividing by powers of 10 (5.NBT.A.2)</p>	<p>Grade 5, Module 2, Topic A, Lesson 1</p>	<p>Solving problems with numbers shown in different forms and converting between the various forms (7.EE.B.3)</p>	<p>Grade 7, Module 3, Topic B, Lessons 7-9</p>
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<p>Assessment Information (Mid-Module and End-of-Module)</p>	<p>Tasks from the mid-module assessment are designed to be given after completing Topic A.</p> <p>Tasks from the end-of-module assessment are designed to be given after completing Topic B.</p>													