Louisiana Believes

Louisiana Guide to Implementing Eureka Math: Grade 8

To assist teachers with the implementation of the 8th Grade Eureka Math curriculum, this document provides multiple layers of guidance regarding how Eureka Math lessons correlate with Louisiana Student Standards for Mathematics (LSSM). Eureka Math is a focused, coherent math curriculum which provides ample instructional guidance for teachers. This Louisiana Guide for Implementing Eureka Math goes a step further to point out places in which teachers may need to make strategic decisions considering student needs and time availability.

This guidance document is considered a "living" document as we believe that teachers and other educators will find ways to improve the document as they use it. Please send feedback to LouisianaStandards@la.gov so that we may use your input when updating this guide.

Updated May 9, 2018

DEPARTMENT of EDUCATION
Louisiana Believes

Table of Contents

Sample Year-Long Schedule for Math Instruction

8th Grade

The following sample schedule integrates the Eureka curriculum, Eureka Remediation Tools, LEAP 360 Interim Assessments and flex days to allow teachers to move at a pace that best supports student learning. Flex days could be used for remediation, enrichment lessons, assessment, or other instructional activities. This sample should be used to guide instructional timing but should not dictate exactly what lesson a teacher should be on during a given day. The guidance has been broken into 9 weeks, as this is the calendar that most Louisiana schools systems follow.

- Coding: 1.1-A represents Module 1.Lesson 1-Topic A
- Lessons marked as "optional for remediation" in the Louisiana Guide to Implementing Eureka, have been marked by *. Teachers should determine best use of these lessons based on their students.
- Lessons marked as "optional for enrichment" in the Louisiana Guide to Implementing Eureka have not been included in this calendar. Teachers may determine to use these during "flex" days.
- Even though only one day on this calendar has been marked for the LEAP Interim assessments, teachers may determine to split these over 2-3 days.

Eureka Remediation Tools are available for the following 8th grade Topics. These tools should be used in the days and weeks leading up to the Topic, either during the regular math class or during time set aside for remediation (RTI). An additional "flex" day has been allotted prior to the Topic.

Module 1, Topics A, B
Module 4, Topics A, B, C, D
Module 5, Topics A, B
Module 6, Topics A, B

	Day 1	Day 2	Day 3	Day 4	Day 5
Week 1	FLEX	FLEX	LEAP 360 Diagnostic Assessment	FLEX	FLEX
Week 2	FLEX	*1.1-A	1.2-A	1.3-A	1.4-A
Week 3	1.5-A	FLEX	*1.7-B	1.8-B	1.9-B
Week 4	1.10-B	1.12-B	1.13-B	FLEX	FLEX
Week 5	FLEX	FLEX	FLEX	FLEX	FLEX
Week 6	FLEX	FLEX	FLEX	2.1-A	2.2-A
Week 7	2.3-A	2.4-A	2.5-A	2.6-A	2.7-B
Week 8	2.8-B	2.9-B	2.10-B	2.11-C	2.12-C
Week 9	2.13-C	2.14-C	2.15-D	2.16-D	FLEX
Week 10	FLEX	FLEX	FLEX	FLEX	FLEX
Week 11	3.1-A	3.5-A	3.6-A	3.8-B	3.9-B

Week 12	3.10-B	3.13-C	3.14-C	FLEX	FLEX
Week 13	FLEX	FLEX	FLEX	FLEX	Gr. 8 LEAP 360 Interim Form 1
Week 14	FLEX	4.3-A	4.4-A	4.6-A	4.7-A
Week 15	FLEX	*4.10-B	4.11-B	FLEX	4.15-C
Week 16	4.16-C	4.17-C	4.22-C	FLEX	4.24-D
Week 17	4.25-D	4.26-D	4.27-D	4.28-D	4.29-D
Week 18	FLEX	FLEX	FLEX	FLEX	FLEX
Week 19	FLEX	FLEX	FLEX	5.2-A	5.3-A
Week 20	5.5-A	5.6-A	5.7-A	5.8-A	FLEX
Week 21	*5.9-B	5.10-B	5.11-B	FLEX	FLEX
Week 22	FLEX	FLEX	FLEX	FLEX	Gr. 8 LEAP 360 Interim Form 2
Week 23	FLEX	6.1-A	6.2-A	6.3-A	6.4-A
Week 24	6.5-A	FLEX	6.6-B	6.7-B	6.8-B
Week 25	6.9-C	6.10-C	6.11-C	6.13-D	6.14-D
Week 26	FLEX	FLEX	FLEX	FLEX	FLEX
Week 27	FLEX	FLEX	7.1-A	7.2-A	7.3-A
Week 28	7.5-A	7.6-B	7.7-B	7.8-B	7.9-B
Week 29	7.10-B	7.11-B	7.13-B	7.15-C	7.16-C
Week 30	FLEX	FLEX	FLEX	FLEX	FLEX
Week 31	7.17-C	7.18-C	7.19-D	7.20-D	7.21-D
Week 32	FLEX	FLEX	FLEX	FLEX	FLEX
Week 33	Reserved for state testing (dates will vary)				
Week 34	To best prepare your students for success in Algebra I, use this time to continue pursuing mastery of the 8.EE.C and 8.F standards. If these concepts and skills have been mastered, enrichment lessons from Module 4 may prove advantageous for preparing students for future success.				
Week 35					
Week 36					

Alternative Sequence

Due to the nature of the standards for Grade 8, there exist many logical, coherent sequences to teach the standards. The sequence Eureka has provided is a viable sequence; however, beginning the year with a study of the 8.EE.A standards has proven to be quite challenging for many students and teachers. Thus, an alternative sequence has been provided.

Note, for more information/rationale around the lessons identified as "optional," see the Notes/Rationale for Action column found in the Overview of Lessons portion in this document.

1. Module 2, Topic A (all Lessons)
2. Module 2, Topic B (all Lessons)
3. Module 2, Topic C (all Lessons)
4. Module 3, Topic A (Lessons 2-4, 7 optional for enrichment)
5. Module 3, Topic B (Lessons 11-12 optional for enrichment)
6. Module 1, Topic A (Lesson 1 optional for remediation, Lesson 6 optional for enrichment)
7. Module 1, Topic B (Lesson 7 optional for remediation, Lesson 11 optional for enrichment)
8. Module 2, Topic D, Lesson 15, Module 3, Topic C, Lessons 13-14, Module 2, Topic D, Lesson 16
9. Module 7, Topic A (Lesson 4 optional for enrichment)
10. Module 4, Topic A (Lessons 1-2, 5, 8-9 optional for enrichment)
11. Module 4, Topic B (Lesson 10 optional for remediation, Lessons 12-14 optional for enrichment)
12. Module 4, Topic C (Lessons 18-21, 23 optional for enrichment)
13. Module 4, Topic D (Lesson 30 optional for enrichment)
14. Module 5, Topic A (Lessons 1, 4 optional for enrichment)
15. Module 6, Topic A (all Lessons)
16. Module 6, Topic B (all Lessons)
17. Module 6, Topic C (Lesson 12 optional for enrichment)
18. Module 6, Topic D (all Lessons)
19. Module 7, Topic B (Lessons 12, 14 optional for enrichment)
20. Module 7, Topic C (all Lessons)
21. Module 5, Topic B (Lesson 9 optional for remediation)
22. Module 7, Topic D (Lesson 22-23 optional for enrichment)

Sample Year-Long Schedule for Math Instruction – Alternative Sequence
8th Grade

The following sample schedule integrates the Eureka curriculum, Eureka Remediation Tools, LEAP 360 Interim Assessments and flex days to allow teachers to move at a pace that best supports student learning. Flex days could be used for remediation, enrichment lessons, assessment, or other instructional activities. This sample should be used to guide instructional timing but should not dictate exactly what lesson a teacher should be on during a given day. The guidance has been broken into 9 weeks, as this is the calendar that most Louisiana schools systems follow.

- Coding: 1.1-A represents Module 1.Lesson 1-Topic A
- Lessons marked as "optional for remediation" in the Louisiana Guide to Implementing Eureka, have been marked by *. Teachers should determine best use of these lessons based on their students.
- Lessons marked as "optional for enrichment" in the Louisiana Guide to Implementing Eureka have not been included in this calendar. Teachers may determine to use these during "flex" days.
- Even though only one day on this calendar has been marked for the LEAP Interim assessments, teachers may determine to split these over 2-3 days.

Eureka Remediation Tools are available for the following 8th grade Topics. These tools should be used in the days and weeks leading up to the Topic, either during the regular math class or during time set aside for remediation (RTI). An additional "flex" day has been allotted prior to the Topic.

Module 1, Topics A, B
Module 4, Topics A, B, C, D
Module 5, Topics A, B
Module 6, Topics A, B

	Day 1	Day 2	Day 3	Day 4	Day 5
Week 1	FLEX	FLEX	LEAP 360 Diagnostic Assessment	FLEX	FLEX
Week 2	2.1-A	2.2-A	2.3-A	2.4-A	2.5-A
Week 3	2.6-A	2.7-B	2.8-B	2.9-B	2.10-B
Week 4	2.11-C	2.12-C	2.13-C	2.14-C	FLEX
Week 5	FLEX	FLEX	FLEX	FLEX	FLEX
Week 6	3.1-A	3.5-A	3.6-A	3.8-B	3.9-B
Week 7	3.10-B	FLEX	FLEX	FLEX	FLEX
Week 8	FLEX	*1.1-A	1.2-A	1.3-A	1.4-A
Week 9	1.5-A	FLEX	*1.7-B	1.8-B	1.9-B
Week 10	1.10-B	1.12-B	1.13-B	FLEX	FLEX
Week 11	FLEX	FLEX	FLEX	FLEX	2.15-D

Week 12	3.13-C	3.14-C	2.16-D	FLEX	FLEX
Week 13	7.1-A	7.2-A	7.3-A	7.5-A	FLEX
Week 14	FLEX	FLEX	Gr. 8. LEAP 360 Interim Form 1	FLEX	FLEX
Week 15	FLEX	4.3-A	4.3-A	4.6-A	4.7-A
Week 16	FLEX	FLEX	*4.10-B	4.11-B	FLEX
Week 17	FLEX	4.15-C	4.16-C	4.17-C	4.22-C
Week 18	FLEX	4.24-D	4.25-D	4.26-D	4.27-D
Week 19	4.28-D	4.29-D	FLEX	FLEX	FLEX
Week 20	FLEX	5.2-A	5.3-A	5.5-A	5.6-A
Week 21	5.7-A	5.8-A	*5.9-B	5.10-B	5.11-B
Week 22	FLEX	FLEX	Gr. 8. LEAP 360 Interim Form 2	FLEX	FLEX
Week 23	FLEX	6.1-A	6.2-A	6.3-A	6.4-A
Week 24	6.5-A	FLEX	FLEX	FLEX	FLEX
Week 25	6.6-B	6.7-B	6.8-B	6.9-B	6.10-C
Week 26	6.11-C	6.13-D	6.14-D	FLEX	FLEX
Week 27	7.6-B	7.7-B	7.8-B	7.9-B	7.10-B
Week 28	7.11-B	7.13-B	FLEX	FLEX	FLEX
Week 29	7.15-C	7.16-C	7.17-C	7.18-C	FLEX
Week 30	FLEX	FLEX	7.19-D	7.20-D	7.21-D
Week 31	FLEX	FLEX	FLEX	FLEX	FLEX
Week 32	FLEX	FLEX	FLEX	FLEX	FLEX

Week 33	Reserved for state testing (dates will vary)
Week 34	To best prepare your students for success in Algebra I, use this time to continue pursuing mastery of the 8.EE.C and 8.F standards. If these concepts and skills have been mastered, enrichment lessons from Module 4 may prove advantageous for preparing students for future success.
Week 35	
Week 36	

Focus in the Standards

Not all content in a given grade is emphasized equally in the standards. Some clusters require greater emphasis than others based on the depth of the ideas, the time that they take to master, and/or their importance to future mathematics or the demands of college and career readiness. More time in these areas is also necessary for students to meet the Louisiana Standards for Mathematical Practice.

To say that some things have greater emphasis is not to say that anything in the standards can safely be neglected in instruction. Neglecting material will leave gaps in student skill and understanding and may leave students unprepared for the challenges of a later grade. Students should spend the large majority of their time on the major work of the grade ( ). Supporting work ( ) and, where appropriate, additional work ( ) can engage students in the major work of the grade.

Overview of Lessons

Eureka Math modules are separated into topics (divided by black lines) and lessons. This section is devoted to helping teachers identify the standards on which each lesson is focused, whether on grade level or not. The grade level standards are color-coded to denote their focus. Again, this alignment does not explicitly align to the alignment guidance provided in Eureka Math. Furthermore, not every lesson is entirely focused on grade level standards, and, as such, many lessons can be used for either remediation or enrichment. In this section you will also find notes on specific lessons that can be used for differentiation, along with details/rationale for the recommended action. An asterisk is used to denote a standard that is not addressed in its entirety in that single lesson. The part(s) of the standard that are addressed are directly quoted from the LSSM standard and are shown in purple.

Module 1: Integer Exponents and Scientific Notation

Lesson	Course Level Content Standards	Standards from other Grades	Action	Notes/Rationale for Action
1.1-A		6.EE.A.1, 7.NS.A.2a	R	• Reserve this Lesson to be used with students who are still struggling with and/or need extra practice understanding and using exponential notation.
1.2-A	8.EE.A.1		O	
1.3-A	8.EE.A.1		O	
1.4-A	8.EE.A.1		O	
1.5-A	8.EE.A.1		O	
1.6-A			E	• This Lesson focuses on students using their knowledge of 8.EE.A.1 to prove laws of integer exponents which extends beyond the explicit expectations of the 8.EE.A.1.
1.7-B		5.NBT.A.2	R	• Reserve this Lesson to be used with students who are still struggling with and/or need extra practice understanding powers of 10.
1.8-B	8.EE.A.3, 8.EE.A.4		O	
1.9-B	8.EE.A.3, 8.EE.A.4*		O	• These Lessons focus on performing operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used and using scientific notation and choosing units of appropriate size for measurements of very large or very small quantities which will lead to mastery of 8.EE.A.4.
1.10-B	8.EE.A.4*		O	
1.11-B	8.EE.A.3, 8.EE.A.4*		E	• This Lesson focuses on the efficacy of scientific notation which extends beyond the explicit expectation of the target standards.
1.12-B	8.EE.A.3, 8.EE.A.4*		O	• This Lesson includes choosing units of appropriate size for measurements of very large or very small quantities which will lead to mastery of 8.EE.A.4; however, it should be noted that this Lesson also includes problems and contexts that may not be very accessible to students. The decision to use and/or modify this Lesson should be made at the teacher level.

R = optional for remediation; E = optional for enrichment; O = on grade level

Lesson	Course Level Content Standards	Standards from other Grades	Action	Notes/Rationale for Action
1.13-B	8.EE.A.3, 8.EE.A.4*		O	• This Lesson includes interpreting scientific notation that has been generated by technology which will lead to mastery of 8.EE.A.4; however, it should be noted that this Lesson provides a limited number of opportunities for students to interpret scientific notation that has been generated by technology. It is recommended that the teacher supplement with extra problems, providing students with more opportunities to interpret scientific notation that has been generated by technology.

Module 2: The Concept of Congruence

Lesson	Course Level Content Standards	Action	Notes/Rationale for Action
2.1-A	8.G.A.1, 8.G.A.2*	O	• These Lessons includes describing a sequence of transformations that move a figure onto another which will lead to mastery of 8.G.A.2.
2.2-A	8.G.A.1*	O	• These Lessons focus on verifying experimentally the properties of translations which will lead to mastery of 8.G.A.1.
2.3-A	8.G.A.1*	O	
2.4-A	8.G.A.1*	O	• This Lesson focuses on verifying experimentally the properties of reflections which will lead to mastery of 8.G.A.1.
2.5-A	8.G.A.1*	O	• This Lesson focuses on verifying experimentally the properties of rotations which will lead to mastery of 8.G.A.1.
2.6-A	8.G.A.1*, 8.G.A.3*	O	• This Lesson includes verifying experimentally the properties of rotations which will lead to mastery of 8.G.A.1. • This Lesson includes describing the effects on two-dimensional figures of rotations using coordinates which will lead to mastery of 8.G.A.3.
2.7-B	8.G.A.1*, 8.G.A.2*	O	• These Lessons focus on verifying experimentally the properties of translations which will lead to mastery of 8.G.A.1. • These Lessons includes describing a sequence of translations that move a figure onto another which will lead to mastery of 8.G.A.2.
2.8-B	8.G.A.1*, 8.G.A.2*	O	• These Lessons focus on verifying experimentally the properties of translations which will lead to mastery of 8.G.A.1. • These Lessons includes describing a sequence of translations and/or reflections that move a figure onto another which will lead to mastery of 8.G.A.2.
2.9-B	8.G.A.1*, 8.G.A.2*	O	• These Lessons focus on verifying experimentally the properties of translations which will lead to mastery of 8.G.A.1. • These Lessons includes describing a sequence of rotations that move a figure onto another which will lead to mastery of 8.G.A.2.
2.10-B	8.G.A.2*	O	• These Lessons focuses on describing a sequence of transformations that move a figure onto another which will lead to mastery of 8.G.A.2.
2.11-C	8.G.A.2	O	

R = optional for remediation; E = optional for enrichment; O = on grade level

Lesson	Course Level Content Standards	Action	Notes/Rationale for Action
2.12-C	8.G.A.5*	O	• This Lesson focuses on using informal arguments to establish facts about the angles created when parallel lines are cut by a transversal which will lead to mastery of 8.G.A.5.
2.13-C	8.G.A.5*	O	• These Lessons focus on using informal arguments to establish facts about the angle sum and exterior angle of triangles which will lead to mastery of 8.G.A.5.
2.14-C	8.G.A.5*	O	
2.15-D	8.G.B.6*, 8.G.B.7*	O	• This Lesson includes explaining a proof of the Pythagorean Theorem which will lead to mastery of 8.G.B.6. • This Lesson includes applying the Pythagorean Theorem to determine unknown side lengths in right triangles in mathematical problems in two dimensions which will lead to mastery of 8.G.B.7.
2.16-D	8.G.B.7, 8.G.B.8	O	

Module 3: Similarity

Lesson	Course Level Content Standards	Standards from other Grades	Action	Notes/Rationale for Action
3.1-A	8.G.A.4*		O	• This Lesson includes understanding 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 which will lead to mastery of 8.G.A.4.
3.2-A		GM: G-SRT.A.1	E	• This Lesson focuses on establishing the properties of dilations which extends beyond the explicit expectations of the 8.G.A standards.
3.3-A			E	• This Lesson focuses on performing dilations using a compass and straightedge which extends beyond the explicit expectations of the 8.G.A standards.
3.4-A			E	• This Lesson 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.
3.5-A	8.G.A.3*		O	• This Lesson includes describing the effects on two-dimensional figures of dilations using coordinates which will lead to mastery of 8.G.A.3. • It should be noted that this Lesson is based upon the fundamental theorem of similarity which is not an explicit expectation of the 8.G.A standards.
3.6-A	8.G.A.3*		O	• This Lesson includes describing the effects on two-dimensional figures of dilations using coordinates which will lead to mastery of 8.G.A.3.
3.7-A			E	• This Lesson focuses on students using their knowledge of the 8.G.A standards to prove properties of dilations which extends beyond the explicit expectations of the 8.G.A standards.
3.8-B	8.G.A.3, 8.G.A.4		O	
3.9-B	8.G.A.3, 8.G.A.4		O	• It should be noted that this Lesson focuses on establishing similarity as both a symmetric and transitive relation which extends beyond the explicit expectation of the 8.G.A standards.
3.10-B	8.G.A.5*		O	• This Lesson focuses on using informal arguments to establish facts about the angle-angle criterion for similarity of triangles which will lead to mastery of 8.G.A.5.

Lesson	Course Level Content Standards	Standards from other Grades	Action	Notes/Rationale for Action
3.11-B		GM: G-SRT.B.5	E	• This Lesson focuses on students using their knowledge of the 8.G.A standards to prove triangles similar and find missing measures which extends beyond the explicit expectations of the 8.G.A standards.
3.12-B		GM: G-SRT.B.5	E	• This Lesson focuses on students using their knowledge of the 8.G.A standards to solve real-world problems which extends beyond the explicit expectations of the 8.G.A standards.
3.13-C	8.G.B.6*, 8.G.B.7*		O	• This Lesson includes explaining a proof of the Pythagorean Theorem which will lead to mastery of 8.G.B.6. • This Lesson includes applying the Pythagorean Theorem to determine unknown side lengths in right triangles in mathematical problems in two dimensions which will lead to mastery of 8.G.B.7.
3.14-C	8.G.B.6*		O	• This Lesson includes explaining a proof of the converse of the Pythagorean Theorem which will lead to mastery of 8.G.B.6. • It should be noted that this Lesson includes applying the converse of the Pythagorean Theorem to determine if three given side lengths form a right triangle which is beyond the explicit expectation of the 8.G.B standards. The decision to include this portion of the Lesson should be made at the teacher level.

Module 4: Linear Equations

Lesson	Course Level Content Standards	Standards from other Grades	Action	Notes/Rationale for Action
4.1-A		A1: A-CED.A.1	E	• This Lesson focuses on creating equations from written statements which extends beyond the explicit expectations of the 8.EE.C standards.
4.2-A			E	• This Lesson focuses on creating expressions from written statements and identifying the expressions as linear or nonlinear expressions which extends beyond the explicit expectations of the 8.EE.C standards.
4.3-A	8.EE.C.7a*		O	• This Lesson includes recognizing linear equations in one variable with one solution, infinitely many solutions which will lead to mastery of 8.EE.C.7a.
4.4-A	8.EE.C.7b		O	
4.5-A		A1: A-CED.A.1	E	• This Lesson focuses on students using their knowledge of 8.EE.C.7 to solve real-world problems which extends beyond the explicit expectations of 8.EE.C.7.
4.6-A	8.EE.C.7a, 8.EE.C.7b		O	
4.7-A	8.EE.C.7a		O	
4.8-A		A2: A-REI.A.2	E	• This Lesson focuses on solving simple rational equations which extends beyond the explicit expectation of the 8.EE.C standards.
4.9-A		A1: A-CED.A.1	E	• This Lesson focuses on students using their knowledge of 8.EE.C.7 to solve real-world problems which extends beyond the explicit expectations of 8.EE.C.7.
4.10-B		7.RP.A.2	R	• It should be noted that, although this Lesson claims to be focuses on proportional relationships, Exercise 3 and the Discussion preceding it focus on a relationship that is not proportional. • Reserve this Lesson to be used with students who are still struggling with and/or need extra practice understanding proportional relationships.
4.11-B	8.EE.B.5*		O	• This Lesson includes graphing proportional relationships which will lead to mastery of 8.EE.B.5.

Lesson	Course Level Content Standards	Standards from other Grades	Action	Notes/Rationale for Action
4.12-B		A1: A-REI.D.10	E	• It should be noted that, although this Lesson does not explicitly align to any Grade 8 standard, the understanding and skills developed in this Lesson may prove advantageous for students as they pursue mastery of 8.EE.C.8. The decision to use this Lesson should be made at the teacher level. • It should be noted that this Lesson introduces and uses the standard form of a linear equation which is not the explicit expectation of the standards for any grade/course. • This Lesson focuses on recognizing that the solution to an equation is two variables in an ordered pair that satisfies the equation and graphing solutions of an equation in two variables which extend beyond the explicit expectation of the 8.EE standards.
4.13-B		A1: A-REI.D.10	E	• It should be noted that, although this Lesson does not explicitly align to any Grade 8 standard, the understanding and skills developed in this Lesson may prove advantageous for students as they pursue mastery of 8.EE.C.8. The decision to use this Lesson should be made at the teacher level. • It should be noted that this Lesson uses the standard form of a linear equation which is not the explicit expectation of the standards for any grade/course. • This Lesson focuses on recognizing that the solution to an equation is two variables in an ordered pair that satisfies the equation and graphing solutions of an equation in two variables which extend beyond the explicit expectation of the 8.EE standards.
4.14-B			E	• It should be noted that, although this Lesson does not explicitly align to any Grade 8 standard, the understanding and skills developed in this Lesson may prove advantageous for students as they pursue mastery of 8.EE.C.8. The decision to use this Lesson should be made at the teacher level. • It should be noted that this Lesson uses the standard form of a linear equation which is not the explicit expectation of the standards for any grade/course. • This Lesson focuses on graphing horizontal and vertical lines which extends beyond the explicit expectations of the 8.EE standards.
4.15-C	8.EE.B.5*		O	• This Lesson includes graphing proportional relationships, interpreting the unit rate as the slope of the graph which will lead to mastery of 8.EE.B.5.
4.16-C	8.EE.B.6*		O	• This Lesson includes using similar triangles to explain why the slope m is the same between any two distinct points on a non-vertical line in the coordinate plane which will lead to mastery of 8.EE.B.6.

Lesson	Course Level Content Standards	Standards from other Grades	Action	Notes/Rationale for Action
4.17-C	8.EE.B.6	A1: A-CED.A.4	O	
4.18-C		A1: F-IF.C.7a	E	• It should be noted that, although this Lesson does not explicitly align to any Grade 8 standard, the understanding and skills developed in this Lesson may prove advantageous for students as they pursue mastery of 8.EE.C.8. The decision to use this Lesson should be made at the teacher level. • This Lesson focuses on graphing linear equations provided an equation in slope-intercept form which extends beyond the explicit expectations of the 8.EE.B standards.
4.19-C		A1: A-REI.D.10, A1: F-IF.C.7a	E	• This Lesson focuses on graphing linear equations provided an equation in slope-intercept form which extends beyond the explicit expectations of the 8.EE.B standards.
4.20-C		A1: A-REI.D.10, A1: F-IF.C.7a	E	• This Lesson focuses on writing, in standard form, the equation of a given line and transforming the equation to standard form which extend beyond the explicit expectations of the 8.EE standards.
4.21-C			E	• It should be noted that, although this Lesson does not explicitly align to any Grade 8 standard, the understanding and skills developed in this Lesson may prove advantageous for students as they pursue mastery of 8.F.B.4. The decision to use these Lessons should be made at the teacher level. • This Lesson focuses on writing the equation of a line given two points or the slope and a point on the line which extends beyond the explicit expectation of the 8.EE standards.
4.22-C	8.EE.B.5		O	
4.23-C			E	• It should be noted that, although this Lesson does not explicitly align to any Grade 8 standard, the understanding and skills developed in this Lesson may prove advantageous for students as they pursue mastery of 8.EE.C.8. The decision to use this Lesson should be made at the teacher level. • This Lesson focuses on understanding that two equations in standard form can name the same line provided that one is a multiple of the other which extends beyond the explicit expectations of the 8.EE.B standards.

Lesson	Course Level Content Standards	Standards from other Grades	Action	Notes/Rationale for Action
4.24-D	8.EE.C.8a, 8.EE.C.8b*, 8.EE.C.8c*		O	• This Lesson includes estimating solutions by graphing the equations which will lead to mastery of 8.EE.C.8b. • This Lesson includes solving real-world problems leading to two linear equations in two variables which will lead to mastery of 8.EE.C.8c.
4.25-D	8.EE.C.8a, 8.EE.C.8c*		O	• This Lesson includes solving mathematical problems leading to two linear equations in two variables which will lead to mastery of 8.EE.C.8c.
4.26-D	8.EE.C.8a		O	
4.27-D	8.EE.C.8a, 8.EE.C.8b		O	
4.28-D	8.EE.C.8b		O	
4.29-D	8.EE.C.8c		O	
4.30-D	8.EE.C.8c		E	• This Lesson focuses on converting between Celsius and Fahrenheit which is not an explicit expectation of 8.EE.C.8.
4.31-E	8.EE.C.8c		E	• This Lesson focuses on students using systems of equations to produce Pythagorean Triples and is identified as 'optional' by the authors.

Module 5: Examples of Functions from Geometry

Lesson	Course Level Content Standards	Standards from other Grades	Action	Notes/Rationale for Action
5.1-A		A1: F-IF.B.6	E	• It should be noted that, although this Lesson does not explicitly align to any Grade 8 standard, the understanding developed in this Lesson may prove advantageous for students as they pursue mastery of 8.F.A.1. The decision to use this Lesson should be made at the teacher level. • This Lesson focuses on analyzing data sets, both linear and nonlinear, and calculating the average rate of change over specified intervals in an effort to help students understand that not all data sets have a constant rate of change (i.e., not all data sets model a linear relationship) which is not an explicit expectation of the 8.F standards.
5.2-A	8.F.A.1*, 8.F.B.4*		O	• This Lesson includes understanding that a function is a rule that assigns to each input exactly one output which will lead to mastery of 8.F.A.1. • This Lesson includes constructing a function to model a linear relationship between two quantities which will lead to mastery of 8.F.B.4.
5.3-A	8.F.A.3*, 8.F.B.4*		O	• This Lesson includes interpreting the equation $y = mx + b$ as defining a linear function, whose graph is a straight line which will lead to mastery of 8.F.A.3. • This Lesson includes constructing a function to model a linear relationship between two quantities and determining the rate of change and initial value of the function from a description of a relationship or from two (x, y) values, including reading these from a table or from a graph which will lead to mastery of 8.F.B.4.
5.4-A			E	• This Lesson focuses on classifying functions as discrete or not discrete (i.e., continuous) which extends beyond the explicit expectations of the 8.F standards.
5.5-A	8.F.A.1*, 8.F.A.3*, 8.F.B.4*		O	• This Lesson includes understanding the graph of a function is the set of ordered pairs consisting of an input and the corresponding output which will lead to mastery of 8.F.A.1. • This Lesson includes interpreting the equation $y = mx + b$ as defining a linear function, whose graph is a straight line which will lead to mastery of 8.F.A.3. • This Lesson includes constructing a function to model a linear relationship between two quantities which will lead to mastery of 8.F.B.4.
5.6-A	8.F.A.3, 8.F.B.4*		O	• This Lesson includes constructing a function to model a linear relationship between two quantities and determining the rate of change and initial value of the function from a description of a relationship or from two (x, y) values, including reading these from a table or from a graph which will lead to mastery of 8.F.B.4.

R = optional for remediation; E = optional for enrichment; O = on grade level

Lesson	Course Level Content Standards	Standards from other Grades	Action	Notes/Rationale for Action
5.7-A	8.F.A.2, 8.F.B.4		O	
5.8-A	8.F.A.3		O	
5.9-B		7.G.B.6	R	• Reserve this Lesson to be used with students who are still struggling with and/or need extra practice with geometric measurement from Grade 7.
5.10-B	8.G.C.9*		O	• This Lesson focuses on knowing the formulas for the volumes of cones and cylinders and using them to solve real-world and mathematical problems which will lead to mastery of 8.G.C.9.
5.11-B	8.G.C.9*		O	• This Lesson focuses on knowing the formulas for the volumes of spheres and using them to solve real-world and mathematical problems which will lead to mastery of 8.G.C.9.

Module 6: Linear Functions

Lesson	Course Level Content Standards	Action	Notes/Rationale for Action
6.1-A	8.F.B.4	O	
6.2-A	8.F.B.4	O	
6.3-A	8.F.B.4	O	
6.4-A	8.F.B.5	O	
6.5-A	8.F.B.5	O	
6.6-B	8.SP.A.1*	O	• This Lesson focuses on constructing and interpreting scatter plots for bivariate measurement data to investigate patterns of association between two quantities which will lead to mastery of 8.SP.A.1.
6.7-B	8.SP.A.1	O	
6.8-B	8.SP.A.2	O	
6.9-B	8.F.B.4, 8.SP.A.2, 8.SP.A.3	O	
6.10-C	8.F.B.4, 8.SP.A.1*, 8.SP.A.2*, 8.SP.A.3	O	• This Lesson includes constructing and interpreting scatter plots for bivariate measurement data to investigate patterns of association between two quantities which will lead to mastery of 8.SP.A.1. • This Lesson includes informally fitting a straight line for a scatter plots that suggest a linear association which will lead to mastery of 8.SP.A.2.
6.11-C	8.F.B.4, 8.SP.A.1, 8.SP.A.2, 8.SP.A.3	O	
6.12-C	8.SP.A.1, 8.SP.A.2*	E	• This Lesson includes informally fitting a straight line for a scatter plots that suggest a linear association which will lead to mastery of 8.SP.A.2. • This Lesson focuses on nonlinear models in a data context and is identified as 'optional' by the authors.
6.13-D	8.SP.A.4	O	
6.14-D	8.SP.A.4	O	

Module 7: Introduction to Irrational Numbers Using Geometry

Lesson	Course Level Content Standards	Standards from other Grades	Action	Notes/Rationale for Action
7.1-A	8.NS.A.2*, 8.G.B.7*		O	• This Lesson includes using rational approximations of irrational numbers to estimate the value of expressions which will lead to mastery of 8.NS.A.2. • This Lesson includes applying the Pythagorean Theorem to determine unknown side lengths in right triangles in mathematical problems in two dimensions which will lead to mastery of 8.G.B.7.
7.2-A	8.NS.A.2*, 8.EE.A.2*		O	• This Lesson includes using rational approximations of irrational numbers to locate them approximately on a number line diagram and estimate the value of expressions which will lead to mastery of 8.NS.A.2. • This Lesson includes evaluating square roots of small perfect squares which will lead to mastery of 8.EE.A.2.
7.3-A	8.EE.A.2*		O	• This Lesson includes using square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number and evaluating square roots of small perfect squares and cube roots of small perfect cubes which will lead to mastery of 8.EE.A.2.
7.4-A			E	• This Lesson focuses on simplifying square roots and is identified as 'optional' by the authors.
7.5-A	8.EE.A.2*, 8.EE.C.7b		O	• This Lesson includes using square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number and evaluating square roots of small perfect squares and cube roots of small perfect cubes which will lead to mastery of 8.EE.A.2. • It should be noted that this Lesson includes problems for which the sample work that shows simplifying a radical which extends beyond the explicit expectations of the 8.EE standards.
7.6-B			O	• It should be noted that, although these Lessons does not explicitly align to any Grade 8 standard, the understanding developed in these Lessons may prove advantageous for students as they pursue mastery of 8.NS.A.1. The decision to use these Lessons should be made at the teacher level.
7.7-B			O	

Lesson	Course Level Content Standards	Standards from other Grades	Action	Notes/Rationale for Action
7.8-B	8.NS.A.1*, 8.EE.A.2*	6.NS.B.2	O	• This Lesson includes knowing that numbers that are not rational are called irrational and understanding informally that every number has a decimal expansion; for rational numbers, showing that the decimal expansion repeats eventually which will lead to mastery of 8.NS.A.1. • This Lesson includes knowing that √2 is irrational which will lead to mastery of 8.EE.A.2.
7.9-B	8.NS.A.2*		O	• This Lesson includes using rational approximations of irrational numbers to estimate the value of expressions which will lead to mastery of 8.NS.A.2.
7.10-B	8.NS.A.1*		O	• This Lesson includes converting a decimal expansion that repeats eventually into a rational number by analyzing repeating patterns which will lead to mastery of 8.NS.A.1.
7.11-B	8.NS.A.2*		O	• This Lesson includes using rational approximations of irrational numbers to locate them approximately on a number line diagram which will lead to mastery of 8.NS.A.2.
7.12-B			E	• This Lesson focuses on teaching students an alternative method for computing the decimal expansion of a rational number.
7.13-B	8.NS.A.2*		O	• This Lesson includes using rational approximations of irrational numbers to compare the size of irrational numbers and locate them approximately on a number line diagram which will lead to mastery of 8.NS.A.2.
7.14-B	8.NS.A.2*		E	• This Lesson includes using rational approximations of irrational numbers to estimate the value of expressions which will lead to mastery of 8.NS.A.2. • This Lesson focuses on creating the decimal expansion for π. The method used for creating the decimal expansion is not one that is appropriate for all irrational numbers and, as such, may not move students towards mastery of the target standard. The decision to include this Lesson should be made at the teacher level.
7.15-C	8.G.B.6*		O	• This Lesson includes explaining a proof of the Pythagorean Theorem which will lead to mastery of 8.G.B.6.
7.16-C	8.G.B.6*, 8.G.B.7*		O	• This Lesson includes explaining a proof of the converse of the Pythagorean Theorem which will lead to mastery of 8.G.B.6. • This Lesson includes applying the Pythagorean Theorem to determine unknown side lengths in right triangles in mathematical problems in two dimensions which will lead to mastery of 8.G.B.7.

Lesson	Course Level Content Standards	Standards from other Grades	Action	Notes/Rationale for Action
7.17-C	8.G.B.8		O	
7.18-C	8.G.B.7		O	
7.19-D	8.G.B.7, 8.G.C.9*		O	• This Lesson includes applying the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions which will lead to mastery of 8.G.B.7. • This Lesson focuses on knowing the formulas for the volumes of cones and spheres and using them to solve real-world and mathematical problems which will lead to mastery of 8.G.C.9.
7.20-D	8.G.C.9*		O	• This Lesson focuses on knowing the formula for the volumes of cones and using it to solve real-world and mathematical problems which will lead to mastery of 8.G.C.9.
7.21-D	8.G.C.9		O	
7.22-D			E	• These Lessons focus on solving problems that force students to use their knowledge and skills from multiple standards, across multiple domains.
7.23-D			E	

Standards by Course

This section aims to further inform teachers on the alignment between Eureka Math and the LSSM. Standards, or parts thereof, highlighted in orange are addressed in Eureka Math but with limited exposure. It is recommended that teachers pay careful attention to these places to ensure students have mastered the standards, or parts thereof, using only Eureka Math. If not, teachers should supplement to ensure mastery for all students. Standards, or parts thereof, highlighted in red are not included in the Eureka Math curriculum thus necessitating the need to supplement to ensure mastery for all students.

Code	Standard
8.NS.A.1	Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually. Convert a decimal expansion which repeats eventually into a rational number by analyzing repeating patterns.
8.NS.A.2	Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions (e.g., π^2). *For example, by truncating the decimal expansion of $\sqrt{2}$, show that $\sqrt{2}$ is between 1 and 2, then between 1.4 and 1.5, and explain how to continue on to get better approximations to the hundredths place.*
8.EE.A.1	Know and apply the properties of integer exponents to generate equivalent numerical expressions. *For example, $3^2 \times 3^{-5} = 3^{-3} = 1/3^3 = 1/27$.*
8.EE.A.2	Use square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that √2 is irrational.
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. *For example, estimate the population of the United States as 3 times 108 and the population of the world as 7 times 109, and determine that the world population is more than 20 times larger.*
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.
8.EE.B.5	Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. *For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.*
8.EE.B.6	Use similar triangles to explain why the slope m is the same between any two distinct points on a non-vertical line in the coordinate plane; derive the equation y = mx for a line through the origin and the equation y = mx + b for a line intercepting the vertical axis at b.

Code	Standard
8.EE.C.7	Solve linear equations in one variable.
8.EE.C.7a	Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form x = a, a = a, or a = b results (where a and b are different numbers).
8.EE.C.7b	Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.
8.EE.C.8	Analyze and solve pairs of simultaneous linear equations.
8.EE.C.8a	Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously.
8.EE.C.8b	Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. *For example, 3x + 2y = 5 and 3x + 2y = 6 have no solution because 3x + 2y cannot simultaneously be 5 and 6.*
8.EE.C.8c	Solve real-world and mathematical problems leading to two linear equations in two variables. *For example, given coordinates for two pairs of points, determine whether the line through the first pair of points intersects the line through the second pair.*
8.F.A.1	Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output. (Function notation is not required in this grade level.)
8.F.A.2	Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). *For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change.*
8.F.A.3	Interpret the equation y = mx + b as defining a linear function, whose graph is a straight line; categorize functions as linear or nonlinear when given equations, graphs, or tables. *For example, the function $A = s^2$ giving the area of a square as a function of its side length is not linear because its graph contains the points (1, 1), (2, 4) and (3, 9), which are not on a straight line.*
8.F.B.4	Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (x, y) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.
8.F.B.5	Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally.
8.G.A.1	Verify experimentally the properties of rotations, reflections, and translations:

Code	Standard
8.G.A.1a	Lines are taken to lines, and line segments to line segments of the same length.
8.G.A.1b	Angles are taken to angles of the same measure.
8.G.A.1c	Parallel lines are taken to parallel lines.
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.)
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.)
8.G.A.4	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.)
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. *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.*
8.G.B.6	Explain a proof of the Pythagorean Theorem and its converse using the area of squares.
8.G.B.7	Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.
8.G.B.8	Apply the Pythagorean Theorem to find the distance between two points in a coordinate system.
8.G.C.9	Know the formulas for the volumes of cones, cylinders, and spheres and use them to solve real-world and mathematical problems.
8.SP.A.1	Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.
8.SP.A.2	Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to the line.

Code	Standard
8.SP.A.3	Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept. *For example, in a linear model for a biology experiment, interpret a slope of 1.5 cm/hr as meaning that an additional hour of sunlight each day is associated with an additional 1.5 cm in mature plant height.*
8.SP.A.4	Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table. Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects. Use relative frequencies calculated for rows or columns to describe possible association between the two variables. *For example, collect data from students in your class on whether or not they have a curfew on school nights and whether or not they have assigned chores at home. Is there evidence that those who have a curfew also tend to have chores?*

Standards by Module

Using the alignment guidance provided in Eureka Math, each module is presented visually, outlining the topics and the standards taught within each topic. The standards are color-coded to denote their focus.

Module 1: Integer Exponents and Scientific Notation	
Topic A	**Topic B**
Exponential Notation and Properties of Integer Exponents	Magnitude and Scientific Notation
8.EE.A.1	8.EE.A.3
	8.EE.A.4

Module 2: The Concept of Congruence			
Topic A	**Topic B**	**Topic C**	**Topic D**
Definitions and Properties of the Basic Rigid Motions	Sequencing the Basic Rigid Motions	Congruence and Angle Relationships	The Pythagorean Theorem
8.G.A.1	8.G.A.2	8.G.A.2	8.G.B.6
		8.G.A.5	8.G.B.7

Module 3: Similarity		
Topic A	**Topic B**	**Topic C**
Dilation	Similar Figures	The Pythagorean Theorem
8.G.A.3	8.G.A.4	8.G.B.6
	8.G.A.5	8.G.B.7

Module 4: Linear Equations				
Topic A	**Topic B**	**Topic C**	**Topic D**	**Topic E**
Writing and Solving Linear Equations	Linear Equations in Two Variables and Their Graphs	Slope and Equations of Lines	Systems of Linear Equations and Their Solutions	The Pythagorean Theorem
8.EE.C.7	8.EE.B.5	8.EE.B.5	8.EE.B.5	8.EE.C.8
		8.EE.B.6	8.EE.C.8	8.G.B.7

Module 5: Examples of Functions from Geometry	
Topic A	**Topic B**
Functions	Volume
8.F.A.1	8.G.C.9
8.F.A.2	
8.F.A.3	

Module 6: Linear Functions			
Topic A	**Topic B**	**Topic C**	**Topic D**
Linear Functions	Bivariate Numerical Data	Linear and Nonlinear Models	Bivariate Categorical Data
8.F.B.4	8.SP.A.1	8.SP.A.1	8.SP.A.4
8.F.B.5	8.SP.A.2	8.SP.A.2	
		8.SP.A.3	

Module 7: Introduction to Irrational Numbers Using Geometry			
Topic A	**Topic B**	**Topic C**	**Topic D**
Square and Cube Roots	Decimal Expansions of Numbers	The Pythagorean Theorem	Applications of Radicals and Roots
8.NS.A.1	8.NS.A.1	8.G.B.6	8.G.B.7
8.NS.A.2	8.NS.A.2	8.G.B.7	8.G.C.9
8.EE.A.2	8.EE.A.2	8.G.B.8	

Standards by Lesson

Eureka Math does not provide a lesson-level alignment to the Louisiana Student Standards for Mathematics (LSSM). Although this work was influenced by the alignment guidance provided in Eureka Math, it does not always align perfectly with the alignment guidance provided in Eureka Math.

The numbers listed denote the Module and Lesson in which a particular standard is addressed. For example, Module 1, Lesson 2 (1.2) helps move students towards mastery of 8.EE.A.1.

Major Work	
8.EE.A.1	1.2, 1.3, 1.4, 1.5
8.EE.A.2	7.2, 7.3, 7.5
8.EE.A.3	1.8, 1.9, 1.11, 1.12, 1.13
8.EE.A.4	1.8, 1.9, 1.10, 1.11, 1.12, 1.13
8.EE.B.5	4.11, 4.15, 4.22
8.EE.B.6	4.16, 4.17
8.EE.C.7	See alignment for 8.EE.C.7a and 8.EE.C.7b
8.EE.C.7a	4.3, 4.6, 4.7
8.EE.C.7b	4.4, 4.6, 7.5
8.EE.C.8	See alignment for 8.EE.C.8a, 8.EE.C.8b, and 8.EE.C.8c
8.EE.C.8a	4.24, 4.25, 4.26, 4.27
8.EE.C.8b	4.24, 4.27, 4.28
8.EE.C.8c	4.24, 4.25, 4.29, 4.30 (E), 4.31 (E)
8.F.A.1	5.2, 5.5

R = optional for remediation; E = optional for enrichment

Major Work	
8.F.A.2	5.7
8.F.A.3	5.3, 5.5, 5.6, 5.8
8.G.A.1	See alignment for 8.G.A.1a, 8.G.A.1b, and 8.G.A.1c
8.G.A.1a	2.1, 2.2, 2.3, 2.4, 2.5, 2.6
8.G.A.1b	2.1, 2.2, 2.3, 2.4, 2.5, 2.6
8.G.A.1c	2.1, 2.2, 2.3, 2.4, 2.5, 2.6
8.G.A.2	2.1, 2.7, 2.8, 2.9, 2.10, 2.11
8.G.A.3	2.6, 3.5, 3.6
8.G.A.4	3.1, 3.8, 3.9
8.G.A.5	2.12, 2.13, 2.14, 3.10
8.G.B.6	2.15, 3.13, 3.14, 7.15, 7.16
8.G.B.7	2.15, 2.16, 3.13, 7.1, 7.16, 7.18, 7.19
8.G.B.8	2.16, 7.17

R = optional for remediation; E = optional for enrichment

Supporting Work	
8.NS.A.1	7.8, 7.10
8.NS.A.2	7.1, 7.2, 7.9, 7.11, 7.13, 7.14 (E)
8.F.B.4	5.2, 5.3, 5.5, 5.6, 5.7, 6.1, 6.2, 6.3, 6.9, 6.10, 6.11
8.F.B.5	6.4, 6.5
8.SP.A.1	6.6, 6.7, 6.10, 6.11
8.SP.A.2	6.8, 6.9, 6.10, 6.11
8.SP.A.3	6.9, 6.10, 6.11
8.SP.A.4	6.13, 6.14

Additional Work	
8.G.C.9	5.10, 5.11, 7.19, 7.20, 7.21

R = optional for remediation; E = optional for enrichment