High School Math Curriculum

Algebra I, Geometry, Algebra II

Quarter 1

School Committee Presentation - June 14, 2022

The Algebra I, Geometry & Algebra II Curriculum Writing Team

James Bailey

Courtney Daglieri

Rachael Franklin

Allison Manning

Robert Mayne

Lori Scungio

Kristina Sparfven

It's been such a pleasure to work with this team!

Links to Curriculum Documents

Algebra I Curriculum Document

Geometry Curriculum Document

Algebra II Curriculum Document

Format - Overview & Pacing

- Organized to mirror the Elementary & Middle School Curriculum that was already approved.
- Note that lessons are broken down per 90-minute block.
- The number of total days includes quizzes and tests.
- The number in the chart indicates instructional days.

Chariho Regional School District
MATH CURRICULUM
ALGEBRA I

Unit 1: *Expressions*

OVERVIEW		
Total Number of 90-minute Days for this Unit: 7		
LESSON #	**LESSON TITLE**	**# of Days**
Lesson 1-1	Numerical Expressions	1
Lesson 1-2	Algebraic Expressions	0.5
Lesson 1-3	Properties of Real Numbers	1
Lesson 1-4	Distributive Property	1
Lesson 1-5	Expressions Involving Absolute Value	0.5
Lesson 1-6	Descriptive Modeling and Accuracy	0.5

Format - Essential Content and Skills

- Major themes:
  - explain the main concepts the students will be expected to understand by the end of the unit.
- Content to be learned:
  - Is a list of specific skills the students will be expected to master by the end of unit.
- Essential question:
  - Similar to main themes, the essential question(s) are overarching ideas that will be the anchor of the unit.

ESSENTIAL CONTENT & SKILLS

The major themes of this unit are:

- Students write and evaluate numerical and algebraic expressions.
- Students simplify expressions using the Distributive Property.
- Students evaluate absolute value expressions.

Content to be learned:

- Write numerical expressions.
- Evaluate numerical expressions.
- Use the order of operations.
- Write algebraic expressions.
- Evaluate algebraic expressions.
- Identify properties of equality.
- Apply the Identity and Inverse Properties to evaluate expressions.
- Apply the Commutative, Associative, and Distributive Properties to evaluate expressions.
- Write and evaluate absolute value expressions.
- Use descriptive modeling to describe real-world situations.
- Choose a level of accuracy appropriate to limitations on measurements.

Essential Question:

- How can mathematical expressions be represented and evaluated?

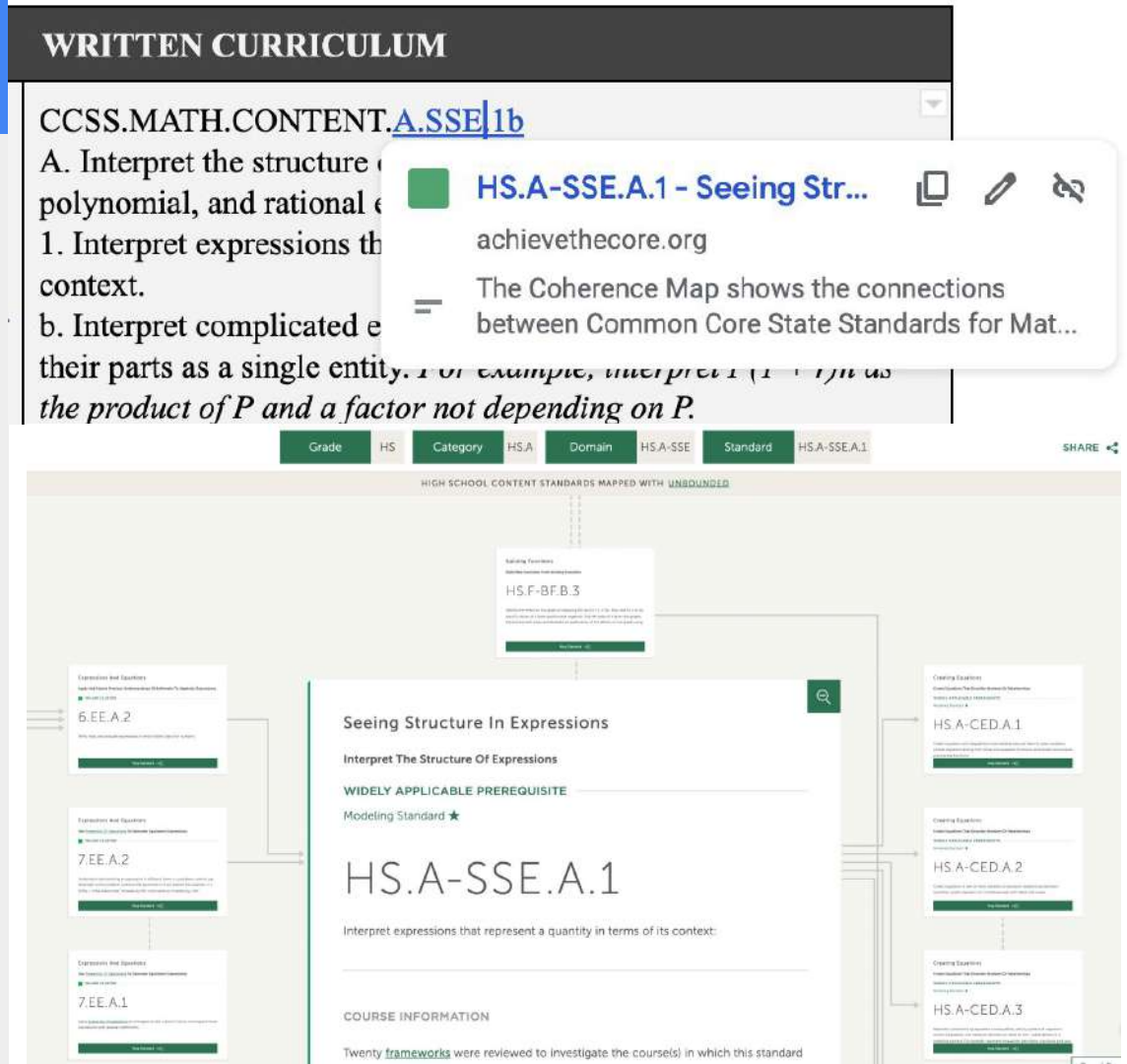
Format - Written Curriculum

- Focus Standards:
  - written out to ensure all readers understand the expectations with examples offered when necessary.
- Standards for Mathematical Practices:
  - These span K-12 and are the main ways students are expected to approach math.

WRITTEN CURRICULUM		
Lesson 1.1	**FOCUS STANDARDS:** **Click on the standard to view the progression of standards.**	CCSS.MATH.CONTENT.A.SSE.1b A. Interpret the structure of linear, quadratic, exponential, polynomial, and rational expressions. 1. Interpret expressions that represent a quantity in terms of its context. b. Interpret complicated expressions by viewing one or more of their parts as a single entity. *For example, interpret P(1 + r)n as the product of P and a factor not depending on P.* CCSS.MATH.CONTENT.A.SSE.2 A. Interpret the structure of linear, quadratic, exponential, polynomial, and rational expressions. 2. Use the structure of an expression to identify ways to rewrite it. *For example, see $x^4 - y^4$ as $(x^2)^2 - (y^2)^2$, thus recognizing it as a difference of squares that can be factored as $(x^2 - y^2)(x^2 + y^2)$.*
	STANDARDS FOR MATHEMATICAL PRACTICES:	1 - Make sense of problems and persevere in solving them. 4 - Model with mathematics. 7 - Look for and make use of structure.

Format - Links

- Link within the Focus Standard:
  - The LINK offers a "vertical articulation" of the standard; what students should have been learned previously & where they will use this standard in the future.



Calendars

- Calendars were created to help the teachers all stay on pace and work under the same expectations.
  - Algebra I
  - Geometry
  - Algebra II

September 2022

Monday	Tuesday	Wednesday	Thursday	Friday
29	30 Staff Orientation	31 District PD	1 • Syllabus Overview (0.5) • Unit 1: Module Pretest and Video (0.5)	2
5 NO SCHOOL Labor Day	6	7 • 1.1: Numerical Expressions (1.0)	8	9 • 1.2: Algebraic Expressions (0.5) • 1.3: Properties of Real Numbers (0.5)
12	13 District PD No School for Students	14	15 • 1.3: Properties of Real Numbers (0.5) • Expand 1.3: Operations with Rational Numbers (0.5)	16
19 • Put It All Together: Sections 1.1-1.3 (0.5) • STAR Testing (0.5)	20	21 • 1.4: Distributive Property (1.0)	22 Early Release Day	23 • 1.5: Expressions Involving Absolute Value (0.5) • 1.6: Descriptive Modeling and Accuracy (0.5)
26	27 • Module Review (0.5) • Module Test (0.5)	28	29 • Unit 2: Module Pretest and Video (0.5) • 2.1: Writing and Interpreting Equations (0.5)	30

Timeline: 2022-2023 School Year

- Begin new curriculum Quarter 1 using new High Quality Curriculum Materials:
  - **REVEAL by McGraw Hill**
- Professional development being offered to ensure a strong implementation.
- Simultaneously writing Q2 - Q4 of the 3 curricula documents.
- School Committee presentation before Quarter 2.