



Ersilia Cruz Middle School

Pueblo, Colorado

2021-2022

Essential Learning Map

Curriculum Map

Scope & Sequence





Ersilia Cruz Middle School

Essential Learning Map

Curriculum Map

Scope and Sequence

Table of Contents

Foundations of the essential learning map	3
Review of last year data and Goals for 2021-2022	5
Language Arts	16
6 th Grade	16
7 th Grade	26
8 th Grade	34
Math	45
6 th Grade	46
7 th Grade	54
8 th Grade	63
Science	69
6 th Grade	70
7 th Grade	72
8 th Grade	74
Social Studies	76
6 th Grade	76
7 th Grade	79
8 th Grade	82
Electives	84
Art	84
Physical Education	88
Computers	94
Dance	98
Health	100
Acknowledgment	103

Notes about color coding of the essential learning maps:

	The essential learning is introduced as a new concept.
	The essential learning is reviewed, revisited, or revised.
	The essential learning is mastered for that grade level.





Foundations of the Essential Learning Map

The essential learning map for the 2020-2021 school year was created by the department PLC (professional learning communities) teams during the 2019-2020 school year. The teams are Language Arts, Math, Science, Social Studies, and Electives.

The essential learning map is necessary to satisfy the first of the 4 PLC fundamental principles: *identify what the students need to know*.

Differing from federal or state content standards, essential learnings are defined as what students need to know to be successful; successful in:

- Life. Their current as well as future life. Students are able to use content knowledge synergistically with thinking skills to work through challenges.
- School. Students use their content knowledge and critical thinking skills to achieve next grade level success.
- Navigating the community. Through relevant content acquisition, students engage in real-world problem solving, social-emotional development, higher-order thinking, and collaboration, students are prepared for current and future challenges.
- Creating a better world. Prepared with the knowledge and skills necessary to be successful, students engage in purposeful use of their education addressing issues impacting the world around them including issues of justice, equity, environment, education and government.

The essential learning map provides the foundation for the remaining PLC fundamental principles:

- *How do we know the students have learned the essential learnings? (assessment)*
- *What do we do when students haven't learned the essential learnings? (intervention)*
- *What do we do for those having mastered the essential learnings? (differentiation)*

The essential learnings are grounded in the mission of the school,

To provide students a challenging, high-quality, diverse K-12 learning environment that develops lifelong learners.

and, the core values:

Service to Others
Innovation
Sacrifice
Determination
Non-Violence
Celebrating Community
Knowledge
Acceptance of All People
Respect for Life
A Preference to Help the most Needy



A revision of the 2020-2021 Essential Learning Map occurred in the Summer/Fall of 2021 to update to the 2020 Colorado Department of Education Standards and Benchmarks for Language Arts, Math, Science, and Social Studies. The Administration and Faculty of Ersilia Cruz Middle School completed these revisions, added goals, and essential learning skills not previously listed.

Again, the essential learning map is necessary to satisfy essential learnings of what students need to know and be able to do by the end of the 2022 school year.

Review of the 2020-2021 School Year

The following provides data related to the 2020-2021 school year based on IReady results taken from both Cesar Chavez Academy, and Ersilia Cruz Middle School. It is the baseline in which goals can be created for the 2021-2022 school year at Ersilia Cruz Middle School.

Due to the COVID-19 pandemic, not all data was acquired to give a complete detailed outline of student's performance for the 2020-2021 school year. However, the information below does provide a sampling of achievement and growth for students at CCA and ECMS throughout the year.

An overall end of year (EOY) analysis of student performance will be provided, as well as student achievement in vocabulary, literature and informational comprehension for Language Arts, and number and operational computation, algebra and algebraic thinking, measurement and data, and geometrical concepts in Mathematics.

The following are definitions of subcategories that IReady assesses;

Vocabulary

We continue to develop vocabulary throughout our lives. Words are powerful. Words open up possibilities, and of course, that's what we want for all of our students.



Comprehension: Literacy and Informational Text

Literacy skills are essential for students to fully participate in and expand their understanding of today's global society. Whether they are reading functional texts (voting ballots, a map, a train schedule, a driver's test, a job application, a text message, product labels); reference materials (textbooks, technical manuals, electronic media); or print and non-print literary texts, students need reading skills to fully manage, evaluate, and use the myriad information available in their day-to-day lives.

Number and Operational Computation

From preschool through high school, students are continually extending their concept of numbers as they build an understanding of whole numbers, rational numbers, real numbers, and complex numbers. As they engage in real-world mathematical problems, they conceive of quantities, numbers with associated units. Students learn that numbers are governed by properties and understand these properties lead to fluency with operations.

Algebra and Algebraic Concepts

Algebraic thinking is about understanding and using numbers, and students' work in this area helps them extend the arithmetic of early grades to expressions, equations, and functions in later grades. This mathematics is applied to real-world problems as students use numbers, expressions, and equations to model the world. The mathematics of this standard is closely related to that of Number and Quantity.

Measurement and data

From the early grades, students gather, display, summarize, examine, and interpret data to discover patterns and deviations from patterns. Measurement is used to generate, represent and analyze data. Working with data and an understanding of the principles of probability lead to a formal study of statistics in middle in high school. Statistics provides tools for describing variability in data and for making informed decisions that take variability into account.



Geometry

Students' study of geometry allows them to comprehend space and shape. Students analyze the characteristics and relationships of shapes and structures, and engage in logical reasoning. Students learn that geometry is useful in representing, modeling, and solving problems in the real world as well as in mathematics

This year, we will develop an assessment that determines a student's writing skill level as IReady does not incorporate this type of measurement. We will implement a Write on Demand format using a 6pt. holistic type of rubric.

2020 performance based on IReady

5th grade reading:

8% of students are performing at or above grade level

13% are at grade level

25% are 1 grade level below

28% are 2 grade levels below

25% are 3+ grade levels below

Reading is one of the strengths of students coming from Cesar Chavez Academy as 21% of students who took the assessment are performing at or above grade level. The faculty at ECMS will continue to build on this foundation by ensuring the following evidence outcomes are attained.

- Cite textual evidence
- Determine theme or central idea
- Describe how a story unfolds
- Determine the meaning of words and phrases
- Determine how does sentences, chapters, or themes contribute to themes,



setting, or plot

- Compare and contrast experiences or reading a story
- Compare and contrast texts in different forms or genres

The following goals have been developed in order to show greater growth and achievement by the end of the 2021-2022 school year in 6th grade reading based on the IReady assessment:

6th grade reading goals

14% of students working at or above grade level

19% of students working at grade level

26% of students working one grade level below

26% of students working two grade levels below

14% of students working three or more grade level below

5th grade math:

13% of our current 5th grade students are working at or above grade level in math. However, 31% of our incoming 5th grade class is only one year behind, and most of their struggles are at the abstract, algebraic thinking areas. We will emphasize the following in teaching to assist students into moving to the next level.

5% of students are working at or above grade level

8% are at grade level

31% are 1 grade level below

25% are 2 grade levels below

31% are 3+ grade levels below



An emphasis on ratio and ratio language, as well as a thorough review of arithmetic operations will take place to better strengthen math skills. Students will also be introduced to the following concepts:

- Utilize ratio and ratio language
- Read, write, and evaluate expressions
- Solving one and two step equations
- Mean, Median, Mode, and Range to answer statistical questions
- Area of right triangles, special quadrilaterals, and polygons
- Division of Fractions
- Greatest Common Factors and Least Common Multiples

6th grade math goals

The following goals have been developed in order to show greater growth and achievement by the end of the 2021-2022 school year in 6th grade math based on the IReady assessment

9% of our students will be working at or above grade level

19% of our students will be working at grade level

28% will be working one grade level below

29% will be working two grade levels below

16% will be working three grade levels below

6th grade reading

Vocabulary seems to be a strength of all of our students, however comprehending and understanding both literature and informational text is an area that needs to be improved upon. These two areas seem to have the majority of students that are between two and four grade levels below.



5% are at or above grade level
6% are at grade level
16% are 1 grade level below
16% are 2 grade levels below
57% are 3+ grade levels below

According to IReady, 11% of our 6th grade middle school population are at or above grade level in reading. An emphasis must be made next year in understanding non-fictional text. We will concentrate of the following areas for better achievement and growth:

- Cite textual evidence
- Determine theme or central idea
- Describe how a story unfolds
- Determine the meaning of words and phrases
- Determine how does sentences, chapters, or themes contribute to themes, setting, or plot
- Compare and contrast experiences or reading a story
- Compare and contrast texts in different forms or genres
- Use common greek or latin affixes and roots to determine meaning
- Demonstrate understanding of figurative language

The following goals have been developed in order to show greater growth and achievement by the end of the 2021-2022 school year in 7th grade reading based on the IReady assessment



7th grade reading goals

8% at or above grade level

11% at grade level

16 % 1 grade level below

36% 2 grade levels below

29% 3+ grade levels below

6th grade math

Math seems to be an area that continues to cause concern not only for our students at ECMS (6% at or above grade level) but also across Pueblo and the State of Colorado. An emphasis relating math facts to students must be made in order to show better growth.

2% of students are at or above grade level

4% of our students are at grade level

22% of our students are 1 grade level below

15% are 2 grade levels below

58% of are 3+ grade levels below

According to IReady, the range of areas in which students are struggling are across the board. A lack of understanding in Geometry seems to be an issue across all grade levels, but the data is telling us that students who understand math are doing well in all four sub-content areas, while those that are 3 grade levels or more behind are behind in all four sub-content areas.

- Introduction to expressions and inequalities
- Add, subtract, multiply and divide fractions and decimals



- Area and circumference of a circle
- Probability models
- Proportional relationships
- Supplementary, complementary, vertical, and adjacent angles
- Volume

7th grade math goals

The following goals have been developed in order to show greater growth and achievement by the end of the 2021-2022 school year in 7th grade math based on the IReady assessment

4% at or above grade level

13% at grade level

18% below grade level

36% two grade levels below

28% three or more grade levels below

According to the End of Year IReady data, 7th grade students were achieving at higher rates than their 6th or 7th grade counterparts. They seem to have a better grasp of vocabulary and understanding text, yet more than half of them are 3 years or more below grade expectations.

7th grade reading

11% of our students are at or above grade level

15% of our students are at grade level

14% of our students are 1 grade level below

9% are 2 grade levels below

50% are 3 or more grade levels below



An emphasis on comprehending literature and informational text must be made in order for students to grow and achieve. Faculty will continuously discuss main ideas, cite textual evidence, and monitor levels of comprehension to assist students with their understanding.

- Cite textual evidence
- Determine theme or central idea
- Describe how a story unfolds
- Determine the meaning of words and phrases
- Determine how does sentences, chapters, or themes contribute to themes, setting, or plot
- Compare and contrast experiences or reading a story
- Compare and contrast texts in different forms or genres
- Use common Greek or Latin affixes and roots to determine meaning
- Demonstrate understanding of figurative language
- Delineate and evaluate arguments
- Analyze detail and structure
- Similarities and differences from screenplays and film

8th grade reading goals

The following goals have been developed in order to show greater growth and achievement by the end of the 2021-2022 school year for 8th grade in reading.

18% at or above grade level

14% at grade level

11% below one grade level

30% below two grade levels

25% below 3 or more grade levels



7th grade math

While reading has been a strength for our 7th grade students, math has been met with some challenges in this grade level. According to IRready sub-content data, concrete level understanding has not been mastered to allow for abstract thinking

7% of our students are at or above grade level

10% of our students are at grade level

15% of our students performing one grade below

12% of students performing 2 grades below

57% of our students performing 3 grades below.

An emphasis on the following concepts this year will take place to assist students in making the connection to abstract thinking:

- Rational and Irrational numbers
- Integer Exponents
- Square Roots and Scientific Notation
- Linear and non-linear functions
- Congruence and similarity
- Functions
- Pythagorean Theorem
- Bivariate Data

8th grade math goals

The goal in 8th grade mathematics will be to extend thinking into abstract problem solving. By the end of the 2021-22 school year, student performance will increase in the following categories

12% working at or above grade level



12% working at grade level

14% 1 grade level below

34% 2 grade levels below

29% 3 or more grade levels below



Language Arts

Language Arts	6th Grade					7th Grade					8th Grade			
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
Reading														
Fiction														
Drama														
Poetry														
Non-fiction														
Formal Essays														
Informative														
Persuasive														
Compare / Contrast														
Argumentative														
Research														
Critical Thinking														
Comprehension														
Conventions and Mechanics														
4 Sentence Types														
Notetaking														



6th Grade Language Arts

6 th Grade	Language Art/English	Q1	Q2	Q3	Q4
FICTION					
	Reading for All Purposes Standard	2.1.	<ul style="list-style-type: none"> Understanding the meaning within different types of literature depends on properly analyzing literary components 		
	Descriptive Evidence Outcomes – Students will be able to Cite textual evidence Determine a theme or central idea Describe how a story unfolds Determine the meaning of words Determine how sentences, chapters, and scenes contribute to theme, setting, and plot Compare and contrast experiences Compare and contrast texts in different forms or genres in similar themes and topics		Essential Questions <ul style="list-style-type: none"> How do reading strategies help a reader's comprehension? How does the plot of a story unfold? How do a character's actions, traits, and dialogue add to the plot of the story? How does an author's word choice shape the tone, mood, and point of view of a story? Why is it important to understand both the literal and figurative meanings of words? Enduring Understanding <ul style="list-style-type: none"> Variety comprehension strategies <ul style="list-style-type: none"> connections questioning visualizing inferring important vs. interesting synthesizing listening Dialog Freytag Plot structure Characterizations Author's craft Figurative language 		

6 th Grade	Language Art/English	Q1	Q2	Q3	Q4
DRAMA					
	Reading for All Purposes Standard	2.2.	<ul style="list-style-type: none"> Understanding the meaning within different types of literature depends on properly analyzing literary components 		
		2.3.	<ul style="list-style-type: none"> Word meanings are determined by how they are designed and how they are used in context 		
	Description Evidence Outcomes – Students will be able to Cite textual evidence and support analysis Determine a central idea of text Analyze in detail how a key		Essential Questions <ul style="list-style-type: none"> How do reading strategies help a reader's comprehension? How does the plot of a story unfold? How do a character's actions, traits, and dialogue add to the plot of the story? How does an author's word choice shape the tone, mood, and point of view of a story? Why is it important to understand both the literal and figurative 		



ECMS 2021-2022 Essential Learnings Map

individual, event, or idea is introduced, illustrated, and elaborated Determine meaning of words Analyze how a particular sentence, paragraph, or chapter fits into the overall structure Determine authors point of view and structure.		meanings of words? Enduring Understanding <ul style="list-style-type: none"> Variety comprehension strategies <ul style="list-style-type: none"> connections questioning visualizing inferring important vs. interesting synthesizing listening Drama Structure Characterizations Author's craft Figurative language
---	--	---

6 th Grade	Language Art/English	Q1	Q2	Q3	Q4
POETRY					
Reading for All Purposes Standard	2.1. 2.3.	<ul style="list-style-type: none"> Understanding the meaning within different types of literature depends on properly analyzing literary Word meanings are determined by how they are designed and how they are used in context 			
Description Evidence Outcomes – Students will Determine or clarify meaning of unknown and multiple meaning words Use context as a clue to the meaning of a word Understand Greek and Latin affixes and roots as clues to a meaning of a word Demonstrate understanding of figurative language, word relationships and nuances Understand connotations to words		Essential Questions <ul style="list-style-type: none"> How do reading strategies help a reader's comprehension? What are the main characteristics of poetry and description? How do a character's actions, traits, and dialogue add to the poem? How does an author's word choice shape the tone, mood, and point of view of the poem? Why is it important to understand both the literal and figurative meanings of words? What makes this form of writing different from other genres? What kind of organization could be used for this form of writing? How can I determine the focus of a poem? Enduring Understanding <ul style="list-style-type: none"> Variety comprehension strategies <ul style="list-style-type: none"> connections questioning visualizing inferring important vs. interesting synthesizing listening Poem structure Characterizations Author's craft Figurative language 			



6 th Grade	Language Art/English	Q1	Q2	Q3	Q4
NON-FICTION					
	Reading for All Purposes Standard	2.1.	<ul style="list-style-type: none"> Understanding the meaning within different types of literature depends on properly analyzing literary components Organizing structure to understand and analyze factual information Word meanings are determined by how they are designed and how they are used in context 		
		2.2.			
		2.3.			
	Description Evidence Outcomes Narratives: Students will be able to Engage and orient the reader by establishing a context and introducing an narrative or character Use narrative techniques such as dialogue, pacing, and description to develop experiences and events Use precise words and phrases for descriptive detail and sensory language Use a variety of transitional words and phrases Provide a conclusion from narrated experiences Use stylistic technique including figurative language and graphic elements to express personal of narrative voice		Essential Questions <ul style="list-style-type: none"> Why is it important to read and understand nonfiction text? How are nonfiction texts structured? How can the features of nonfiction texts help readers locate information? What strategies can readers use when dissecting informational text? How do readers recognize authors' purpose? Why is supporting the central idea with textual evidence important? How does the author's word choice affect the mood, tone, and meaning of a text? Enduring Understandings <ul style="list-style-type: none"> Earn new information and develop new ideas Structures aid in deepening a reader's understanding Information that provide a richer understanding Reading strategies <ul style="list-style-type: none"> connections questioning visualizing inferring important vs. interesting synthesizing listening Various text structures and features to determine the author's purpose. Textual evidence to prove the central idea. 		

6 th Grade	Language Art/English	Q1	Q2	Q3	Q4
INFORMATIVE					
	Writing and Composition Standard	3.1.	<ul style="list-style-type: none"> Writing literary genres for intended audiences and purposes requires ideas, organization, and voice Writing informational and persuasive genres for intended audiences and purposes require ideas, organization, and voice develop Specific editing for grammar, usage, mechanics, and clarity gives 		
		3.2.			
		3.3.			



ECMS 2021-2022 Essential Learnings Map

			writing its precision and legitimacy
	<p>Description</p> <p>Evidence Outcomes</p> <p>Students will be able to</p> <p>Write informative/exploratory texts to examine a topic and explain ideas</p> <p>Introduce topic; organize ideas, concepts, and information</p> <p>Develop topic with relevant facts</p> <p>Use appropriate transitions</p> <p>Use precise language and domain and specific vocab</p> <p>Establish and maintain a formal style</p> <p>Provide a concluding statement that provides information presented</p>		<p>Essential Questions</p> <ul style="list-style-type: none">• What is the purpose of writing using reading?• How can writing about reading be organized?• Why is writing about subject essential to analyzing?• Why must effective writing incorporate organization, elaboration, and fluency?• How does pre-writing, drafting, revising, editing, and publishing help an author create effective writing?• How can punctuation, grammar, and vocabulary clarify and/or change the message of an author's piece of writing? <p>Enduring Understandings</p> <ul style="list-style-type: none">• Pre-writing, drafting, revising, editing, and publishing• Reading is to deepen knowledge of text• Information and persuasive organization• Deepen their understanding information• Organized and elaborate coherent message• Punctuation, grammar, and vocabulary for crafting clear, precise writing

6 th Grade	Language Art/English	Q1	Q2	Q3	Q4
COMPARE/CONTRAST					
Writing and Composition Standard	3.1.	<ul style="list-style-type: none"> Writing literary genres for intended audiences and purposes requires ideas, organization, and voice Writing informational and persuasive genres for intended audiences and purposes require ideas, organization, and voice develop Specific editing for grammar, usage, mechanics, and clarity gives writing its precision and legitimacy 			
	3.2.				
	3.3.				
Description		Essential Questions <ul style="list-style-type: none"> How does traits impact subject development in a text? How do the subjects in the text respond or change? How does a specific trait, action, or example support the thesis? How does comparing and contrasting the subjects or themes in different forms or genres helps with understanding text? How does pre-writing, drafting, revising, editing, and publishing help an author create effective writing? Why must effective writing incorporate organization, elaboration, and fluency? How can punctuation, grammar, and vocabulary clarify and/or change the message of an essay? Enduring Understandings <ul style="list-style-type: none"> Evaluate text and define theme, concepts, or subject Cite and analyze text that supports concept Compare and contrast two different readings 			



ECMS 2021-2022 Essential Learnings Map

		<ul style="list-style-type: none"> • Cite textual evidence to support claim or analysis of text • Cite textual evidence to support inferences • Organization and elaboration with fluency comparison and contrast information • Process that includes pre-writing, drafting, revising, editing, and publishing. • Punctuation, grammar, and vocabulary • Clear, precise writing • Variety of writing tools: parallel structure, figurative language, etc.
--	--	--

6 th Grade	Language Art/English	Q1	Q2	Q3	Q4
PERSUASIVE					
Writing and Composition Standard	3.1.	<ul style="list-style-type: none"> • Writing literary genres for intended audiences and purposes requires ideas, organization, and voice • Writing informational and persuasive genres for intended audiences and purposes require ideas, organization, and voice develop • Specific editing for grammar, usage, mechanics, and clarity gives writing its precision and legitimacy 			
	3.2.				
	3.1.				
Description		<p>Essential Questions</p> <ul style="list-style-type: none"> • What is the purpose of writing using reading? • How can writing about reading be organized? • Why is analyzing and writing about subject essential understanding? • Why must effective writing incorporate organization, elaboration, and fluency? • How does pre-writing, drafting, revising, editing, and publishing help an author create effective writing? • How can punctuation, grammar, and vocabulary clarify and/or change the message of an author's piece of writing? <p>Enduring Understandings</p> <ul style="list-style-type: none"> • Pre-writing, drafting, revising, editing, and publishing • Reading is to deepen knowledge of text • Information and persuasive organization • Deepen their understanding information • Organized and elaborate coherent message • Punctuation, grammar, and vocabulary • Crafting clear, precise writing 			

6 th Grade	Language Art/English	Q1	Q2	Q3	Q4
ARGUMENTATIVE					
Writing and Composition Standard	3.1.	<ul style="list-style-type: none"> • Writing literary genres for intended audiences and purposes requires ideas, organization, and voice • Writing informational and persuasive genres for intended audiences and purposes require ideas, organization, and voice 			
	3.2.				



ECMS 2021-2022 Essential Learnings Map

		3.1.	<p>develop</p> <ul style="list-style-type: none"> Specific editing for grammar, usage, mechanics, and clarity gives writing its precision and legitimacy
<p>Description</p> <p>Evidence Outcome – Students will be able to</p> <p>Introduce claims and organize the reasons and evidence clearly</p> <p>Support claims with clear reason and relevant evidence using credible sources</p> <p>demonstrating an understanding of topic</p> <p>Use words, phrases, and clauses to clarify the relationships among claims and reasons</p> <p>Establish and</p> <p>Maintain a formal style</p> <p>Provide a concluding statement that follows the argument</p>			<p>Essential Questions</p> <ul style="list-style-type: none"> How does pre-writing, drafting, revising, editing, and publishing help an author create effective writing? What is the purpose of argumentative writing? Why is it essential for a writer to be aware of his/her audience? What techniques do writers use to craft engaging, convincing arguments? Why must effective writing incorporate organization, elaboration, and fluency? How can punctuation, grammar, and vocabulary clarify and/or change the message of an author's piece of writing? <p>Enduring Understandings</p> <ul style="list-style-type: none"> Process of pre-writing, drafting, revising, editing, and publishing. Supporting a claim with clear reasons and relevant evidence Tone of an argumentative piece Incorporation of facts, opinions, counterarguments, etc. Craft engaging and convincing arguments Organization, elaboration, and fluency Punctuation, grammar, vocabulary, clear, precise writing

6 th Grade	Language Art/English		Q1	Q2	Q3	Q4
CRITICAL THINKING						
Research and Reasoning Standard	4.1.	<ul style="list-style-type: none"> Individual and group research projects require obtaining information on a topic from a variety of sources and organizing it for presentation 				
	4.2.	<ul style="list-style-type: none"> Assumptions can be concealed, and require identification and evaluation 				
	4.3.	<ul style="list-style-type: none"> Monitoring the thinking of self and others is a disciplined way to maintain awareness 				
Description		<p>Essential Questions</p> <ul style="list-style-type: none"> How to distinguish relevant from irrelevant facts, thesis, subject, or reasons? How to determine factual accuracy of source? How are ambiguous or assumptions identified? How are fallacies and bias detected? How are inconsistencies recognized? How is the strength of an argument or claim determined? 				



ECMS 2021-2022 Essential Learnings Map

		Enduring Understanding <ul style="list-style-type: none"> Recognize problem Represent problem Important concepts vs. interesting Examples and attributes of concept Categorize attributes by features or traits Modify and integrate concepts Devise or choose solution Evaluate and execute solution Define goals Understands and analyzes alternative choices Rank and choose best solutions
--	--	--

6 th Grade	Language Art/English		Q1	Q2	Q3	
COMPREHENSION						
	Research and Reasoning Standard	4.1. 4.2. 4.3.	<ul style="list-style-type: none"> Individual and group research projects require obtaining information on a topic from a variety of sources and organizing it for presentation Assumptions can be concealed, and require identification and evaluation Monitoring the thinking of self and others is a disciplined way to maintain awareness 			
	Description Evidence outcomes Students will Conduct short research projects to answer a question Gather relevant information from multiple sources Draw evidence from literary or informational sources to support analysis		Essential Question <ul style="list-style-type: none"> How do differences in cultural, political, and economic create different comprehension of the same subject? How to evaluate and integrate content in various formats and media to gain clarity about a topic? How to communicate a complete account? How do texts on similar information build knowledge? Enduring Understanding <ul style="list-style-type: none"> Questioning Clarifying Retelling, summarizing, or paraphrasing Word relationships, nuances, words/phrases origin Figurative language References (e.g., thesaurus, dictionary, etc.) Verbal, written, or facial expression Read and analyze multiple 			

6 th Grade	Language Art/English		Q1	Q2	Q3	Q4
CONVENTIONS AND MECHANICS						
	Writing and Composition Standard	3.3.	<ul style="list-style-type: none"> Specific editing for grammar, usage, mechanics, and clarity gives writing its precision and legitimacy 			
	Description		Essential Questions			



ECMS 2021-2022 Essential Learnings Map

<p>Evidence Outcome</p> <p>Students will be able to</p> <p>Demonstrate the command of conventions of Standard English Grammar and Usage</p> <p>Ensure pronouns are in the proper case</p> <p>Intensive pronouns</p> <p>Recognize and correct inappropriate shifts in pronoun shifts in pronoun number and person</p> <p>Recognize variations from Standard English in their own and others writing and speaking and one strategy to improve expression</p> <p>Use Punctuation to set off non-restrictive parenthetical elements</p> <p>Correctly spell frequently used words</p> <p>Vary sentence patterns</p> <p>Maintain consistency.</p>		<ul style="list-style-type: none"> What is the purpose of understanding words and word parts when reading? What is the purpose of applying grammar and mechanics skills to our writing? How do the eight parts of speech and each serves a purpose within sentence construction? How does a strong vocabulary allow for a better understanding? How does written and expressive language that use proper grammar and mechanics skills promote fluency of communication? <p>Enduring Understandings</p> <ul style="list-style-type: none"> Function and purpose of words within sentences. Meaning of unknown and multiple-meaning words. Parts of a sentence and paragraphs. Sentences for the purpose of clarifying and expanding ideas. Pronouns, prepositions, and interjections. Grade-level appropriate words. Grammar, coherency, and message
---	--	--

6 th Grade	Language Art/English	Q1	Q2	Q3	Q4
TYPES OF SENTENCES					
Writing and Composition Standard	3.3.	<ul style="list-style-type: none"> Specific editing for grammar, usage, mechanics, and clarity gives writing its precision and legitimacy 			
Description		<p>Essential Questions</p> <ul style="list-style-type: none"> What is the purpose of sentence variation? <p>Enduring Understandings</p> <ul style="list-style-type: none"> Variety of sentences (declarative, interrogative, imperative, and exclamatory; simple, compound, and complex) Create vivid, varied writing pieces. 			

6 th Grade	Language Art/English	Q1	Q2	Q3
NOTE TAKING				
Writing and Composition and Research and Reasoning Standards	3.1 4.3.	<ul style="list-style-type: none"> Writing literary genres for intended audiences and purposes requires ideas, organization, and voice Monitoring the thinking of self and others is a disciplined way to maintain awareness 		



Description	Essential Questions <ul style="list-style-type: none">• Why is writing about subject essential to analyzing?• Why must effective writing incorporate organization, elaboration, and fluency?• How to evaluate and integrate content in various formats and media to gain clarity about a topic? Enduring Understandings <ul style="list-style-type: none">• Reading is to deepen knowledge of text• Deepen their understanding information• Organized and elaborate coherent message• Important concepts vs. interesting• Examples and attributes of concept• Categorize attributes by features or traits• Modify and integrate concepts
-------------	--



7th Grade Language Arts

7 th Grade	Language Art/English	Q1	Q2	Q3	Q4
FICTION					
Reading for All Purposes Standard	2.1.	<ul style="list-style-type: none"> Literary elements, characteristics, and ideas are interrelated and guide the comprehension of literary and fictional texts 			
Descriptive Essential Learning Skills Key Ideas and details -Cite several pieces of evidence to support analysis -Determine a central theme -Analyze how events interact -Determine meaning of words and phrases -Analyze how structure contributes to meaning -Analyze how author develops and contrasts character point of view -Compare and contrast written story, drama, and poem -Compare and contrast fictional portrayal of time, place, or character		Essential Questions <ol style="list-style-type: none"> How would changing the setting, character, plot, or point of view affect the outcome of a story? How do authors appeal to the reader's emotions and beliefs? What makes characters come alive? What creates conflict? What resolves it? Enduring Understanding <ul style="list-style-type: none"> Variety comprehension strategies <ul style="list-style-type: none"> connections questioning visualizing inferring important vs. interesting synthesizing listening Dialog Plot structure Characterizations Settings Metaphors Figurative language 			



7 th Grade	Language Art/English	Q1	Q2	Q3	Q4
NON-FICTION					
Reading for All Purposes Standard	2.2	<ul style="list-style-type: none"> Literary elements, characteristics, and ideas are interrelated and guide the comprehension of literary and fictional texts 			
Descriptive Essential Learning Skills Key Ideas and details -Support analysis of what a text says -Determine two or more central ideas in a text and analyze development -Analyze interaction between individuals, events, and ideas -Cite several pieces of evidence to support analysis -Determine a central theme -Analyze how events interact -Determine meaning of words and phrases -Analyze how structure contributes to meaning -Analyze how author develops and contrasts character point of view -Compare and contrast text to audio, video, or other multimedia -Trace and evaluate arguments and specific claims of a text -Analyze how two or more authors shape their presentation about the same topic		Essential Questions <ul style="list-style-type: none"> How does the author use language to convey his/her viewpoint? (For example, pro-slavery—the words used show a bias toward owning slaves.) How can readers distinguish between facts and an author's opinion? Why does this matter? How are multiple sources valuable when you are learning new information? Enduring Understanding <ul style="list-style-type: none"> Questioning Clarifying Summarizing Word relationships, nuances, words/phrases origin Figurative language References (e.g., thesaurus, dictionary, etc.) Verbal, written, or facial expression Read and analyze multiple 			

7 th Grade	Language Art/English	Q1	Q2	Q3	Q4
DRAMA & POETRY					
Reading for All Purposes Standard	2.1	Literary elements, characteristics, and ideas are interrelated and guide the comprehension of literary and fictional texts			
	2.3.	Purpose, tone, and meaning in word choices influence literary, persuasive, and informational texts			



ECMS 2021-2022 Essential Learnings Map

<p>Description Essential Learning Skills Students will be able to</p> <ul style="list-style-type: none"> -Determine or clarify the meaning of unknown or multiple meanings of words and phrases -Use common grade appropriate Greek or Latin affixes and roots -Consult general and specific reference materials -Verify preliminary determination of meaning of a word or phrase -Understand figurative language, word relationship and nuances -Interpret figures of speech -Use relationship between words for better understanding 		<p>Essential Questions</p> <ol style="list-style-type: none"> 1. How would changing the setting, character, plot, or point of view affect the outcome of a story? 2. How do authors appeal to the reader's emotions and beliefs? 3. What makes characters come alive? 4. What creates conflict? What resolves it? 5. When a word has multiple meanings or pronunciations, how does a reader select the correct one? (For example, I want to contract with that person to detail my car. I hope I don't contract the flu.) 6. What power do words have? 7. How do people adjust the words they use in different contexts? <p>Enduring Understanding</p> <ol style="list-style-type: none"> 8. Variety comprehension strategies <ul style="list-style-type: none"> connections questioning visualizing inferring important vs. interesting synthesizing listening 9. Drama Structure 10. Characterizations 11. Author's craft 12. Figurative language
---	--	---

7 th Grade	Language Art/English	Q1	Q2	Q3	Q4
INFORMATIVE					
Writing and Composition Standard	3.2 3.3 4.1	<ul style="list-style-type: none"> • Organization is used when composing informational and persuasive texts • Editing writing for proper grammar, usage, mechanics, and clarity improves written work • Answering a research question logically begins with obtaining and analyzing information from a variety of sources 			
<p>Description Essential Learning Skills Students will be able to:</p> <ul style="list-style-type: none"> -Introduce a topic clearly -Develop a topic with relative facts -Use appropriate transitions 		<p>Essential Questions</p> <ul style="list-style-type: none"> • How do different references enhance readers' thinking about writing? • Why does word choice play such an important part in writing? • How can a writer use his/her influence to persuade readers? • How do transition words create fluency in writing? • What are other purposes of transitions? 			



ECMS 2021-2022 Essential Learnings Map

<ul style="list-style-type: none"> -Use precise language and vocab -Establish and maintain a formal style -Provide a concluding statement 	<ul style="list-style-type: none"> • How can use of vocabulary help or hinder a piece of writing? • When does a writer know he/she has done enough editing? • How does editing make someone a better writer? • How do people use technology for accessing and recording information? • What is the significance in using primary sources? <p>Enduring Understandings</p> <ul style="list-style-type: none"> • Pre-writing, drafting, revising, editing, and publishing • Reading is to deepen knowledge of text • Information and persuasive organization • Deepen their understanding information • Organized and elaborate coherent message • Punctuation, grammar, and vocabulary for crafting clear, precise writing
--	--

7 th Grade	Language Art/English	Q1	Q2	Q3	Q4
COMPARE/CONTRAST/Create Narratives					
Writing and Composition Standard	3.2 3.3 4.1	<ul style="list-style-type: none"> • Organization is used when composing informational and persuasive texts • Editing writing for proper grammar, usage, mechanics, and clarity improves written work • Answering a research question logically begins with obtaining and analyzing information from a variety of sources 			
Description Learning Outcomes <ul style="list-style-type: none"> -Write narratives to develop real or imagined experiences -Engage and orient the reader by establishing context, point of view, and introducing narrator -Use narrative techniques -Use transition words -Use precise words and phrases, relative descriptive details, and sensory language -Provide a conclusion that follows form and reflects on narrative experiences -Use stylistic techniques, figurative language and graphic elements 		<p>Essential Questions</p> <ul style="list-style-type: none"> • How do different references enhance readers' thinking about writing? • Why does word choice play such an important part in writing? • How can a writer use his/her influence to persuade readers? • How do transition words create fluency in writing? • What are other purposes of transitions? • How can use of vocabulary help or hinder a piece of writing? • When does a writer know he/she has done enough editing? • How does editing make someone a better writer? • How do people use technology for accessing and recording information? • What is the significance in using primary sources? <p>Enduring Understandings</p> <ul style="list-style-type: none"> • Cite and analyze text that supports concept • Compare and contrast two different concepts • Cite textual evidence to support idea • Organization and elaboration with fluency comparison and contrast information • Process that includes planning, drafting, editing. • Punctuation, grammar, and vocabulary 			



ECMS 2021-2022 Essential Learnings Map

		<ul style="list-style-type: none"> Punctuation, grammar, and vocabulary for crafting clear, precise writing
--	--	--

7 th Grade	Language Art/English	Q1	Q2	Q3	Q4
PERSUASIVE					
	Writing and Composition Standard 3.2 3.3 4.1	<ul style="list-style-type: none"> Organization is used when composing informational and persuasive texts Editing writing for proper grammar, usage, mechanics, and clarity improves written work Answering a research question logically begins with obtaining and analyzing information from a variety of sources 			
	Description Learning Outcomes -Write arguments to support claims within reason and relevant evidence -Introduce claims, acknowledge alternate claims, and reason evidence -Support claims using accurate and credible sources Use words, phrases, and clauses to create cohesion Provide concluding statements that support and argument.	Essential Questions <ul style="list-style-type: none"> How do different references enhance readers' thinking about writing? Why does word choice play such an important part in writing? How can a writer use his/her influence to persuade readers? How do transition words create fluency in writing? What are other purposes of transitions? How can use of vocabulary help or hinder a piece of writing? When does a writer know he/she has done enough editing? How does editing make someone a better writer? How do people use technology for accessing and recording information? What is the significance in using primary sources? Enduring Understandings <ul style="list-style-type: none"> Pre-writing, drafting, revising, editing, and publishing Reading is to deepen knowledge of text Information and persuasive organization Deepen their understanding information Organized and elaborate coherent message Punctuation, grammar, and vocabulary Crafting clear, precise writing 			

7 th Grade	Language Art/English	Q1	Q2	Q3	Q4
ARGUMENTATIVE					
	Writing and Composition Standard 3.2 3.3 4.1	<ul style="list-style-type: none"> Organization is used when composing informational and persuasive texts Editing writing for proper grammar, usage, mechanics, and clarity improves written work Answering a research question logically begins with obtaining and analyzing information from a variety of sources 			
	Description	Essential Questions <ul style="list-style-type: none"> How do different references enhance readers' thinking about writing? Why does word choice play such an important part in writing? 			



ECMS 2021-2022 Essential Learnings Map

		<ul style="list-style-type: none"> How can a writer use his/her influence to persuade readers? How do transition words create fluency in writing? What are other purposes of transitions? How can use of vocabulary help or hinder a piece of writing? When does a writer know he/she has done enough editing? How does editing make someone a better writer? How do people use technology for accessing and recording information? What is the significance in using primary sources? <p>Enduring Understandings</p> <ul style="list-style-type: none"> Process of pre-writing, drafting, revising, editing, and publishing. Supporting a claim with clear reasons and relevant evidence Tone of an argumentative piece Incorporation of facts, opinions, counterarguments, etc. Craft engaging and convincing arguments Organization, elaboration, and fluency Punctuation, grammar, vocabulary, clear, precise writing
--	--	---

7 th Grade	Language Art/English	Q1	Q2	Q3	Q4
CRITICAL THINKING/RESEARCH					
Research and Reasoning Standard	1.1 1.2 4.1. 4.3.	<ul style="list-style-type: none"> Formal presentations require preparation and effective delivery Small and large group discussions rely on active listening and the effective contributions of all participants Answering a research question logically begins with obtaining and analyzing information from a variety of sources Reasoned material is evaluated for its quality using both its logic and its use of a medium 			
Description Learning Outcomes -Conduct short projects to answer a question - Use search terms -Evidence from literacy or informational text to support analysis or reflection		<p>Essential Questions</p> <ul style="list-style-type: none"> What background knowledge can presenters apply to their research? Why is it important to use good research strategies when finding information on a topic? How does the lack of a component (introduction, main idea, supporting details, and conclusion) change the intent of a presentation? What makes an effective discussion? How can everyone contribute without a few people dominating the discussion? What strategies do effective communicators use to involve other people in the discussion? What is the significance in using primary sources? When is a primary source unhelpful? What point(s) of view is (are) being dismissed or played down? 			



ECMS 2021-2022 Essential Learnings Map

		<ul style="list-style-type: none"> How can people gain access to the point of view being negated (from those who most intelligently understand it)? How does using multiple perspectives and points of view expand people's thinking? What makes a story have low credibility? What makes a story or text have high credibility? What makes a presentation have clarity for the audience? How are people influenced by something in the news? What are the implications if people receive poor, unreliable information? How does that influence the quality of thinking? <p>Enduring Understanding</p> <ul style="list-style-type: none"> Recognize problem Represent problem Important concepts vs. interesting Examples and attributes of concept Categorize attributes by features or traits Modify and integrate concepts Devise or choose solution Evaluate and execute solution Define goals Understands and analyzes alternative choices Rank and choose best solutions
--	--	---

7 th Grade	Language Art/English	Q1	Q2	Q3	
COMPREHENSION/Writing Process					
Research and Reasoning Standard	2.1 2.2 2.3 3.2	<ul style="list-style-type: none"> Literary elements, characteristics, and ideas are interrelated and guide the comprehension of literary and fictional texts Informational and persuasive texts are summarized and evaluated Purpose, tone, and meaning in word choices influence literary, persuasive, and informational texts Organization is used when composing informational and persuasive texts 			
Description Evidence Outcomes Conventions- Phrases and clauses Simple, compound, complex, compound complex sentences Place phrases and clauses with a sentence – recognition of dangling modifier Use a comma to separated coordinate adjectives		<p>Essential Question</p> <ul style="list-style-type: none"> How would changing the setting, character, plot, or point of view affect the outcome of a story? How do authors appeal to the reader's emotions and beliefs? What makes characters come alive? What creates conflict? What resolves it? How can readers distinguish between facts and an author's opinion? Why does this matter? How are multiple sources valuable when you are learning new information? 			



ECMS 2021-2022 Essential Learnings Map

<p>Correctly spell frequently used words and consult reference materials</p> <p>Produce clear and coherent writing in which the development of organization and style are appropriate</p>	<ul style="list-style-type: none"> How do different references enhance readers' thinking about writing? When a word has multiple meanings or pronunciations, how does a reader select the correct one? (For example, I want to contract with that person to detail my car. I hope I don't contract the flu.) How do people adjust the words they use in different contexts? <p>Enduring Understanding</p> <ul style="list-style-type: none"> Questioning Clarifying Retelling, summarizing, or paraphrasing Word relationships, nuances, words/phrases origin Figurative language References (e.g., thesaurus, dictionary, etc.) Verbal, written, or facial expression Read and analyze multiple
---	--

7 th Grade	Language Art/English	Q1	Q2	Q3	Q4
PUNCTUATION					
Writing and Composition Standard	3.3.	<ul style="list-style-type: none"> Editing writing for proper grammar, usage, mechanics, and clarity improves written work 			
Description		<p>Essential Questions</p> <ul style="list-style-type: none"> How do transition words create fluency in writing? What are other purposes of transitions? How can use of vocabulary help or hinder a piece of writing? When does a writer know he/she has done enough editing? How does editing make someone a better writer? <p>Enduring Understandings</p> <ul style="list-style-type: none"> Function and purpose of words within sentences. Meaning of unknown and multiple-meaning words. Parts of a sentence and paragraphs. Sentences for the purpose of clarifying and expanding ideas. Pronouns, prepositions, and interjections. Grade-level appropriate words. Grammar, coherency, and message 			



8th Grade Language Arts

8 th Grade	Language Art/English	Q1	Q2	Q3	Q4
FICTION					
Standard	1	Engage in effective collaborative discussions and analyze information presented.			
Description Evidence Outcomes Students will: Cite Textual Evidence Identify the central theme or idea Analyze how a text makes connections among and distinctions between individual ideas and events Analyze the detail and structure of a specific paragraph Determine the reasoning of words and phrases Compare and contrast structure Authors point of view acknowledge and responds to conflicting evidence or viewpoints		Essential Questions <ol style="list-style-type: none"> 1. What does good listening look like? 2. How do individuals contribute to the success of a team? 3. Do all teams need leaders? 4. How is asking questions a useful strategy in learning? Enduring Understanding <ul style="list-style-type: none"> • Making connections • Gather appropriate information • Using personal experiences to apply in writing • Entrepreneurial Skills • Critical Thinking • Problem Solving • Presenting different claims • Having perspectives expressed by others • Personal Skills • Adaptability • Flexibility • generate ideas • negotiate roles and responsibilities • respect consensus in decision making Instructional Units <ol style="list-style-type: none"> 1. Houghton Mifflin Harcourt Collections Grade 8 2. Digital Collections 3. Academic Vocabulary 			



ECMS 2021-2022 Essential Learnings Map

Delineate & evaluate the argument and specific claims in a text Analyze a case in which two or more texts provide conflicting information		

8 th Grade	Language Art/English	Q1	Q2	Q3	Q4
DRAMA					
Standard	2	Engage in effective collaborative discussions and analyze information presented.			
Description Evidence Outcomes Students will: Cite Textual Evidence Identify the central theme or idea Analyze how particular dialogue or lines in a story propel the story Determine the reasoning of words and phrases Compare and contrast structure Analyze different points of view		Essential Questions 1. How do authors develop theme? 2. How do authors convey mood? 3. How do different authors approach story elements? Enduring Understanding <ul style="list-style-type: none"> • Apply knowledge • Setting goals • Making informed decisions • Using personal skills • Self-direction • Value different perspectives • Interpret messages differently • Using professional skills • Informational Literacy Instructional Units 1. Houghton Mifflin Harcourt Collections Grade 8 2. Digital Collections 3. Academic Vocabulary			



Analyze the extent to which a film or live production stays faithful or departs from text		
---	--	--

8th Grade	Language Art/English	Q1	Q2	Q3	Q4
POETRY					
Standard	2	Apply knowledge of word structure, grammar, and context to determine the meaning of new words and phrases in increasingly complex texts.			
Description		Essential Questions 1. How does the history of language affect our understanding of a text? 2. How does slang, dialect, or colloquial language affect a listener? 3. How do we learn new words? Enduring Understanding <ul style="list-style-type: none"> • Apply knowledge to set goals • Make informed decisions • Transfer to new contexts • Personal skills initiative • Self-Direction • Generate ideas • Negotiate roles • Decision making • Interpersonal Skills • Teamwork Instructional Units 1. Houghton Mifflin Harcourt Collections Grade 8 2. Digital Collections 3. Academic Vocabulary			

8th Grade	Language Art/English	Q1	Q2	Q3	Q4
NON-FICTION					
Standard	2	Apply knowledge of word structure, grammar, and context to determine the meaning of new words and phrases in increasingly complex texts.			
Description Evidence Outcomes		Essential Questions 1. What are the elements of a well-developed character? 2. How do authors use imagery to create tone?			



<p>Students will: Cite Textual Evidence Identify the central theme or idea Analyze how a text makes connections among and distinctions between individual ideas and events Analyze the detail and structure of a specific paragraph Determine the reasoning of words and phrases Compare and contrast structure Authors point of view acknowledge and responds to conflicting evidence or viewpoints Delineate & evaluate the argument and specific claims in a text Analyze a case in which two or more texts provide</p>	<p>3. What makes text elements engaging to a reader? 4. How does foreshadowing create connections for a reader?</p> <p>Enduring Understanding</p> <ul style="list-style-type: none"> • Engage in novel approaches • Applying intreprenurial Skills • Creativity • Assess personal strengths • Applying personal skills • Self-awareness • Establish goal • Comprehension • Write out steps accordingly <p>Instructional Units</p> <ol style="list-style-type: none"> 1. Houghton Mifflin Harcourt Collections Grade 8 2. Digital Collections 3. Academic Vocabulary
---	--



conflicting information		
--------------------------------	--	--

8 th Grade	Language Art/English	Q1	Q2	Q3	Q4
INFORMATIVE					
Standard	3	Write well-developed and logically organized informative/explanatory texts, conveying relevant content through precise language, domain-specific vocabulary, and formal style.			
Description Evidence Outcomes Students will be able to: Write informative & expository texts to examine a topic -Introduce topic, previewing what is to follow, and organize ideas Develop the topic with relevant well-chosen facts, definitions, and concrete details Use appropriate and varied transitions Use precise language and specific vocab Establish and maintain a formal style Provide a concluding		Essential Questions: 1. What techniques do writers use to “hook” their readers? 2. What tools do writers use to summarize ideas? 3. What kind of organization is most effective in informational writing? 4. How do writers know when they have given enough information? 5. Are all styles of informational writing equally appropriate? Enduring Understanding <ul style="list-style-type: none"> • Identify the purpose • Identify and ask question(s) • Identifying issues and point of view • Monitor selected sources • Check the credibility of the author • Recognize errors in reasoning • Correcting errors in reasoning • Cite Instructional Units 1. Houghton Mifflin Harcourt Collections Grade 8 2. Digital Collections 3. Academic Vocabulary 4. Performance Tasks			



ECMS 2021-2022 Essential Learnings Map

statement with support		
---------------------------	--	--

8th Grade	Language Art/English	Q1	Q2	Q3	Q4
COMPARE/CONTRAST					

Standard	3	Write well-organized and cohesive arguments, distinguishing claim(s) from opposing claims and using language to clarify connections among claims, reasons, and evidence
Description		<ul style="list-style-type: none"> Essential Questions: <ul style="list-style-type: none"> How does comparing and contrasting subjects clarify bias? How does comparative thinking beneficial for personal life experiences? How do the principles of comparing and contrasting effect a person's perspective? Enduring Understanding <ul style="list-style-type: none"> Comparative thinking Reflective thinking Evaluates

8 th Grade	Language Art/English	Q1	Q2	Q3	Q4
PERSUASIVE					

Standard	3	2. Write well-developed and logically organized informative/explanatory texts, conveying relevant content through precise language, domain-specific vocabulary, and formal style
Description		<p>Essential Questions</p> <ol style="list-style-type: none"> What techniques do writers use to “hook” their readers? What tools do writers use to summarize ideas? What kind of organization is most effective in informational writing? How do writers know when they have given enough information? Are all styles of informational writing equally appropriate? <p>Enduring Understanding</p> <ul style="list-style-type: none"> Identify purpose Identifying questions Issue the point of view Monitor selected sources check for credibility of the author of the source Recognize and correct errors in reasoning



		Instructional Units 1. Houghton Mifflin Harcourt Collections Grade 8 2. Digital Collections 3. Academic Vocabulary 4. Performance Tasks
--	--	--

8 th Grade	Language Art/English	Q1	Q2	Q3	Q4
ARGUMENTATIVE					
	Standard Description Evidence Outcomes Students will be able to Write arguments to support clear reasons and relevant evidence -Introduce claims and distinguish from alternate or opposing claims -Support claims with logical reasoning and relevant evidence Words, phrases, and clauses to create cohesion clarify relationships, claims, and counterclaims	3 Write well-organized and cohesive arguments, distinguishing claim(s) from opposing claims and using language to clarify connections among claims, reasons, and evidence. Essential Questions 1. What techniques do authors use to persuade readers? 2. How can authors use diction to convince or persuade others? 3. How do writers select evidence to best support their claim(s)? Essential Understanding <ul style="list-style-type: none"> • Look for values • Expression • Personal Skills • Flexibility • Interpret messages • Show values and points of view that are included or excluded • Professional skills • Information literacy • Demonstrate confidence in sharing ideas/feelings • Professional Skills • Self-Advocacy • Cite Instructional Units 1. Houghton Mifflin Harcourt Collections Grade 8 2. Digital Collections 3. Performance Tasks 4. Academic Vocabulary			

8 th Grade	Language Art/English	Q1	Q2	Q3	Q4
-----------------------	----------------------	----	----	----	----



RESEARCH			
Standard		Pose important questions; identify, locate, and evaluate sources; extract and synthesize relevant information, and communicate findings appropriately.	
Description		Essential Questions <ol style="list-style-type: none"> 1. How do we know what resources meet our needs? 2. What do we do when our immediate resources are not adequate? 3. How do we know our information is reliable? 4. What organizational strategy best suits this research? 5. How do we determine the most appropriate format for presenting our research? 6. How do we cite our research? Enduring Understanding <ul style="list-style-type: none"> • Making connections between information gathered and personal experiences • apply and/or test solutions • Critical Thinking • Problem Solving • Test hypotheses/prototype with planned process • Inquiry • Analysis • Evaluate given information • Communication • Technology skills • Cite Instructional Units <ol style="list-style-type: none"> 1. Houghton Mifflin Harcourt Collections Grade 8 2. Digital Collections 3. Performance Tasks 4. Academic Vocabulary 5. Analyze 6. Performance Tasks 	

8 th Grade	Language Art/English	Q1	Q2	Q3	Q4
COMPREHENSION					
Standard		2. Analyze and evaluate an author's choices to understand informational text.			
Description Evidence Outcomes: Write Narratives to develop real or imagined		Essential Questions: <ol style="list-style-type: none"> 1. How do we evaluate an author's credibility? 2. How do visuals convey information? 3. How can bias influence a reader? 4. What elements make a text more attractive to some readers than others? 			



ECMS 2021-2022 Essential Learnings Map

<p>experiences or events</p> <p>-Engage and orient the reader by establishing a context and point of view</p> <p>Use narrative techniques</p> <p>Use a variety of transitions</p> <p>Use precise words and phrases to common sequence, descriptive details and sensory language</p> <p>Provide a conclusion that follows on & reflects on the narrated experience.</p> <p>Use stylistic techniques</p>	<p>Enduring Understanding</p> <ul style="list-style-type: none"> Analyze the points of view Implications of consequences Inferencing Assumptions Concepts inherent in thinking Differentiate Identify fallacies <p>Instructional Units</p> <ol style="list-style-type: none"> Houghton Mifflin Harcourt Collections Grade 8 Digital Collections Performance Tasks Academic Vocabulary Higher level questioning Performance Tasks
--	---

8 th Grade	Language Art/English	Q1	Q2	Q3	Q4
CONVENTIONS					
Standard	Produce clear and coherent final drafts that demonstrate a command of the conventions for grammar, usage, and mechanics as well as a style appropriate to task, purpose, and audience				
<p>Description</p> <p>Evidence</p> <p>Outcomes:</p> <p>Students will be able to</p> <p>-Demonstrate command of conventions</p> <p>Explain the function of verb forms and use verbs in active</p>	<p>Essential Questions</p> <ol style="list-style-type: none"> How does the use of correct grammar, usage, and mechanics add clarity to writing? How can various tools help a writer edit work? What are some common punctuation errors? How can writers avoid these challenges in the future? When is it beneficial to use the thesaurus? <p>Enduring Understanding</p> <ul style="list-style-type: none"> Explain the rationales Conventional rules for grammar Punctuation 				



<p>and passive voice</p> <p>-Form and use verbs in indicative, imperative, interrogative, conditional, and subjective mood</p> <p>-Recognize and correct inappropriate shifts in verb voice</p> <p>-Punctuation to indicate pause or break</p> <p>-Ellipsis to indicate omission</p> <p>-Correctly spell frequently used words and consult reference materials</p> <p>-Apply knowledge of structure, grammar, and context to determine the meaning of new words and phrases</p> <p>-Determine the meaning of unknown and multiple words and phrases</p> <p>-Use context</p> <p>-Use common Greek and Latin Affixes and roots</p> <p>-Consult general and specialized reference materials</p>	<ul style="list-style-type: none"> • Usage • Spelling • Presentations • Explanation of any writing violations • Follow conventional rules • <p>Instructional Units</p> <ol style="list-style-type: none"> 1. Houghton Mifflin Harcourt Collections Grade 8 2. Digital Collections 3. Performance Tasks 4. Academic Vocabulary 5. Performance Tasks
--	--



ECMS 2021-2022 Essential Learnings Map

Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.	
---	--



Mathematics

	Introduced
	Reviewed/ Revisited
	Mastered

ECMS Essential Learning Map

Math	6th Grade				7th Grade				8th Grade			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Linear Equations	Introduced			Reviewed/ Revisited								
Expressions & Inequalities					Reviewed/ Revisited			Mastered				
Ratios and Proportions	Introduced											
Rational Numbers					Introduced		Mastered					
Real Number Systems									Reviewed/ Revisited			Mastered
Solving Functions (Linear & Non-Linear)									Introduced	Mastered		
Graphing Functions										Introduced	Mastered	
Geometry												
Surface Area (2D & 3D)				Introduced								
Circles						Mastered						
Volume								Reviewed/ Revisited				Mastered
Angles							Introduced					
Pythagorean Theorem											Mastered	
Congruence & Similarity									Introduced			
LCM & GCF		Introduced		Mastered								
Absolute Value	Introduced	Mastered										
Graphing of Points			Mastered									
Mean, Median, Mode			Mastered									
Probability w/Ratios & Inferences						Introduced	Mastered					
Bivariate Data											Introduced	Reviewed/ Revisited
Real World App. & Word Problems					Reviewed/ Revisited			Mastered				



6th Grade Math

6 th grade	Math	Q1	Q2	Q3	Q4
Linear Equations					
Standard:	6.EE.A.2.a	Write expressions that record operations with numbers and with letters standing for numbers. For example, express the calculation “Subtract y from 5” as 5−y.			
Description: Evidence Outcomes - Write & evaluate whole number expressions as exponents -Read, write, and evaluate expressions using variables -Identify parts of expressions using math terms -Evaluate expressions	Quarter 1: 1. Essential question: How do you use patterns to model mathematic situations? a) Building Equations 1. Basic addition or Subtraction with a single variable 2. Basic multiplication or Division with a single variable 2. Essential question: How do you use patterns to understand mathematics? a) Building Equations 1. Basic addition or Subtraction with a single variable 2. Basic multiplication or Division with a single variable				
Standard:	6.EE.A.3	Apply the properties of operations to generate equivalent expressions. For example, apply the distributive property to the expression 3(2+x) to produce the equivalent expression 6+3x; apply the distributive property to the expression 24x+18y to produce the equivalent expression 6(4x+3y); apply properties of operations to y+y+y to produce the equivalent expression 3y.			



<p>Description:</p> <p>Evidence Outcome -Define ration using ratio language Apply the concept of a unit ratio Use a ratio to solve real-world problems by using equivalent ratios, tape diagram, double line diagram, or equations Make tables of equivalent ratios relating quantities with whole number measurement, and missing values in tables, and plot them in the coordinate plane Solve unit rate problems to find the best value</p>	<p>Quarter 1:</p> <ol style="list-style-type: none"> Essential question: How are algebraic expressions similar to and different from numerical expressions? <ol style="list-style-type: none"> Order of operations <ol style="list-style-type: none"> Distributive property with algebraic expressions. Commutative property with algebraic expression and numerical expressions. Associative property with numerical expressions Associative property with algebraic expressions after substitution. Essential question: Are the two algebraic equations equivalent? <ol style="list-style-type: none"> Substitution <ol style="list-style-type: none"> One expression and one variable. One expression and two variables. Input and output box Setting two algebraic equations equal to each other and substituting into each equation. Combine like terms <ol style="list-style-type: none"> One variable algebraic equations One variable algebraic equations with numerical Two variable algebraic equations with numerical Multi variable algebraic equations with numerical
---	--

<p>Standard:</p>	<p>6.EE.B.5</p>	<p>Describe solving an equation or inequality as a process of answering a question: Which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.</p>
-------------------------	-----------------	--

<p>Description:</p> <p>Introduce independent and dependent variables – Use them to show that as one variable changes, the other also changes.</p>	<p>Quarter 1:</p> <ol style="list-style-type: none"> Essential question: How is the solution to an inequality different than a solution to an equation? <ol style="list-style-type: none"> Solve one Step Equations and Inequalities <ol style="list-style-type: none"> Basic addition or Subtraction with a single variable Basic multiplication or Division with a single variable Solve two step equations <ol style="list-style-type: none"> Multiplication with addition or subtraction <ol style="list-style-type: none"> Example $3x-2=7$ Example $3x+2=11$ Division with addition or subtraction <ol style="list-style-type: none"> Example: $x/2+3=9$ Example: $x/2-3=3$ <p>Quarter 4:</p> <ol style="list-style-type: none"> Essential Question: What makes a strategy effective and efficient and the solution reasonable with inequalities and equations? <ol style="list-style-type: none"> Analyze given work and answers to inequalities Analyze given work and answers to equations Analyze the different representations of both
---	--



Standard:	6.EE.B.8	Write an inequality of the form $x > c$, $x \geq c$, $x < c$, or $x \leq c$ to represent a constraint or condition in a real-world or mathematical problem. Show that inequalities of the form $x > c$, $x \geq c$, $x < c$, or $x \leq c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams.
Description:	Quarter 1: <ol style="list-style-type: none"> Essential question: Why does an inequality have infinitely many solutions? <ol style="list-style-type: none"> Symbol Representation and meaning <ol style="list-style-type: none"> Greater than Less than Greater than or Equal to Less than or Equal to Inequality a word problem <ol style="list-style-type: none"> Create an inequality from a word problem Create a word problem from an inequality Graphing an inequality <ol style="list-style-type: none"> Direction of arrow Closed or open circle Equal to a single number 	

6 th grade	Math	Q1	Q2	Q3	Q4
Absolute Values					
Standard:	6.NS.C.5	Explain why positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.			
Description: Evidence Outcome: Understand opposite of numbers Understand that the sign of a number can also represent the reflection of the same number Label positive and negative numbers in a coordinate plane. Extend a number line diagram and	Quarter 1: 1. Essential question: What do negative numbers relate to the real world? a) Negative Numbers b) Negative Numbers multiplication and division 1. Negative times a Negative 2. Positive times a Negative 3. Negative times a Positive				



coordinate axes to represent points on the line and in the plane of negative number coordinates.	
--	--

Standard:	6.NS.C.7.c	Define the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. For example, for an account balance of -30 dollars, write $ -30 =30$ to describe the size of the debt in dollars.
Description:	<p>Quarter 1:</p> <p>1. Essential question: How is absolute value and distance related?</p> <p>a) Absolute Value Operations</p> <ol style="list-style-type: none"> Example: -3 Example: $-3+2$ Example: $- -3$ <p>Quarter 2:</p> <p>1. Essential question: How does absolute value and money relate?</p> <p>a) Real World</p> <ol style="list-style-type: none"> Number line location Money <ol style="list-style-type: none"> Debt Borrowed Owed In the red In the Black Distance Traveled <ol style="list-style-type: none"> Miles Going forward then backwards (Does going backwards account for distance) 	

6 th grade	Math	Q1	Q2	Q3	Q4
LCM and GCF					
Standard:	6.NS.B.4	Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. For example, express $36+8$ as $4(9+2)$.			



ECMS 2021-2022 Essential Learnings Map

Description:	<p>Quarter 2:</p> <p>1. Essential question: How do you use prime factorization?</p> <p>a) Prime numbers</p> <p>1. Important Facts</p> <p>i. The numbers 0 and 1 are neither prime nor 1</p> <p>I. 1 has only one factor – itself</p> <p>II. 0 has endless number of factors</p> <p>ii. 2 is the only even prime number</p> <p>b) Build a factor tree</p> <p>c) Prime Factorization Relay Game</p> <p>1. Index cards that are colored in the middle of the table of prime numbers and none prime numbers</p> <p>2. Each group has a composite number</p> <p>2. Essential question: How do you use patterns to understand mathematics?</p> <p>a) Building Equations</p> <p>1. Basic addition or Subtraction with a single variable</p> <p>2. Basic multiplication or Division with a single variable</p>
---------------------	---

Standard:	6.NS.A.1	Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. For example, create a story context for $23 \div 34$ and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that $23 \div 34 = 89$ because 34 of 89 is 23. (In general, $a/b \div c/d = ad/bc$.) How much chocolate will each person get if 3 people share 12 lb of chocolate equally? How many 34-cup servings are in 23 of a cup of yogurt? How wide is a rectangular strip of land with length 34 mi and area 12 square mi?
Description: Evidence Outcome Describe a rational number as a point on the number line.	<p>Quarter 2:</p> <p>1. Essential question: How do multiplying and dividing fractions relate to one another?</p> <p>a) Multiplying Fractions</p> <p>b) Dividing Fractions</p> <p>c) Reducing Fractions</p> <p>2. Essential question: What is the most important rule when adding or subtracting fractions?</p> <p>a) Adding or subtracting fractions with different denominators</p> <p>1. Finding the LCM.</p> <p>2. Reducing fraction (GCF)</p> <p>Quarter 4:</p> <p>1. Essential question: How can you use LCM's or GCF's to solve problems?</p> <p>a) Difference between LCM and GCF</p> <p>b) Real life problems</p>	

6 th grade	Math	Q1	Q2	Q3	Q4
Graphing Points					
Standard:	6.SP.A.2	Demonstrate that a set of data collected to answer a statistical question has a distribution that can be described by its center, spread, and overall shape.			



ECMS 2021-2022 Essential Learnings Map

Description:	Quarter 3: <ol style="list-style-type: none"> Essential question: How are coordinate pairs and plotting points related? <ol style="list-style-type: none"> Labeling a coordinate plane <ol style="list-style-type: none"> Origin (0,0) Quadrants Positive and negative Quadrants Location of coordinate pairs Graphing points in all four quadrants Reflections Essential question: How can points relate to real life? <ol style="list-style-type: none"> Distance between points on the grid Determining location of points compared to a map
---------------------	--

6 th grade	Math	Q1	Q2	Q3	Q4
Mean, Median, Mode					
Standard:	6.SP.B.4	Display numerical data in plots on a number line, including dot plots, histograms, and box plots.			
Description: Identify a statistical question as one that anticipates variability of the data related to the question. Explain that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its value varies with a single measure.	Quarter 3: <ol style="list-style-type: none"> Essential question: How do you determine how to display numerical data? <ol style="list-style-type: none"> Create a Box Plot Plotting data on a number line Creating a Histograms <ol style="list-style-type: none"> Bucket List Histogram VS Bar Graph Essential question: How do you read numerical data displayed? <ol style="list-style-type: none"> Read a Box Plot Read a Histogram Read Dot Plots 				
Standard:	6.SP.B.5.c	Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.			



ECMS 2021-2022 Essential Learnings Map

Description:	Quarter 3: <ol style="list-style-type: none"> Essential question: What is the best measure of center? <ol style="list-style-type: none"> Mean/Average Median Interquartile range Essential question: What does the shape of data tell us? <ol style="list-style-type: none"> Symmetric Shape Essential Questions: How do you determine data from different graphs? <ol style="list-style-type: none"> Look at Box Plot <ol style="list-style-type: none"> Mean Median Range Look at the outliers in the data <ol style="list-style-type: none"> Determine if there are outliers Decide what makes an outlier affect the data
---------------------	--

6 th grade	Math	Q1	Q2	Q3	Q4
Geometry					
Standard:	6.G.A.1	Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.			
Description:	<u>Quarter 4:</u> <div>1. Essential question: How do we use formulas in Geometry? a) Right Triangle 1. Angles of a right triangle 2. Side lengths 3. Area of a right Triangle b) Isosceles Triangle 1. Side lengths 2. Angles of an isosceles triangle 3. Area of an isosceles triangle c) Scalene Triangle 1. Side lengths 2. Angles of an isosceles triangle 3. Area of an isosceles triangle</div> <div>3. Essential question: How do you find area of irregular shapes? a) Area 1. Quadrilaterals i) Classify Quadrilaterals ii) Plot on a coordinate plane iii) Determine the shapes name iv) Calculate the side lengths of the shape on the coordinate plane</div>				

Standard:	6.G.A.3	Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.
Description:	Quarter 4: <ol style="list-style-type: none"> Essential question: How do we use formulas in Geometry? 	



ECMS 2021-2022 Essential Learnings Map

	<p>a) Polygon Graphing</p> <ol style="list-style-type: none"> 1. Calculate the area <ol style="list-style-type: none"> i) Split the polygon into recognized shapes (Triangle, square rectangle, etc....) ii) Use absolute value to find side lengths iii) Calculate each shapes area <p>b) Real World Polygons</p> <ol style="list-style-type: none"> 1) Area of a park 2) Birds eye vie area 3) Construction of a building
--	---

<u>Standard:</u>	6.G.A.2	Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas $V=lwh$ and $V=bh$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.
Description:	<u>Quarter 4:</u>	<p>1. Essential question: What does volumes cubic units represent?</p> <p>a) 3-D Shapes</p> <ol style="list-style-type: none"> 1. Types of 3-D Shapes 2. Cubes to build a 3-d Shape 3. Volumes of Rectangular Prisms <p>b) Geometry City</p> <ol style="list-style-type: none"> 1. Students build shapes for builds 2. Calculate the volume of those shapes in their city

<u>Standard:</u>	6.G.A.4	Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.
Description:	<u>Quarter 4:</u>	<p>1. Essential question: How can you model surface area?</p> <p>a) Calculate Surface area</p> <ol style="list-style-type: none"> 1. Nets 2. 3-d and 2-d <p>2. Essential question: How does surface area relate to the real world?</p> <p>a) Unit Dog</p> <ol style="list-style-type: none"> 1. Create a scale drawing of parts of a dog (Nets) 2. Create ratio 3. Build the dog 4. Create pieces for the dog 5. Dog show



7th Grade Math

7 th grade	Math	Q1	Q2	Q3	Q4
Expressions & Inequalities					
Standard:	7.EE.A.2	Demonstrate that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. For example, $a + 0.05a = 1.05a$ means that “increase by 5%” is the same as “multiply by 1.05.”			
Description: Learning Outcomes: -Apply properties of operations as strategies to add, subtract, factor, and expand linear equations and rational coefficients	Quarter 1: 1. Essential Question: What are different ways you can use expressions to solve problem? a. Re-writing Expressions 1. Combining Like Terms 2. Distribution Property 3. Similarities of Expressions (Are they the same?) Quarter 4: 1. Essential Question: How do you create an expression from word problems? a. Creating Expression from Word Problems 1. Identifying Key Information in Word Problems 2. Write Expressions from Word Problems				

Standard:	7.EE.B.4.a	Solve word problems leading to equations of the form $px \pm q = r$ and $p(x \pm q) = r$, where p , q , and r are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. <i>For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?</i>
Description:	<p>Quarter 1:</p> <ol style="list-style-type: none"> Essential Question: What the difference between algebraic & arithmetic solutions? <ol style="list-style-type: none"> Algebraic Solution Arithmetic Solution Compare Algebraic and Arithmetic Solutions <p>Quarter 4:</p> <ol style="list-style-type: none"> Essential Question: How do you express algebraic & arithmetic solutions in word problems? <ol style="list-style-type: none"> Word Problems <ol style="list-style-type: none"> Algebraic Solutions in Word Problems Arithmetic Solutions in Word Problems 	

Standard:	7.EE.B.4.b	Solve word problems leading to inequalities of the form $px \pm q > r$, $px \pm q \geq r$, $px \pm q < r$, or $px \pm q \leq r$, where p , q , and r are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem. <i>For example: As a salesperson, you are paid \$50 per week plus \$3 per sale. This week you want your pay to be at least \$100. Write an inequality for the number of sales you need to make and describe the solutions.</i>
------------------	------------	---



Description:	<u>Quarter 1:</u> 1. Essential Question: What can you graph multi-step inequalities? a. Inequalities 1. Writing Expressions for Inequalities 2. Solving Inequalities b. Graphing Inequalities 1. Negative Numbers 2. Two-Step Problems 3. Interpret the Graph
---------------------	---

<u>Standard:</u>	7.RP.A.2.b	Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.
Description:	<u>Quarter 4:</u> 1. Essential Question: How do you determine the constant proportionality (unit rate)? a. Constant Proportionality from a Graph 1. Table 2. Equations (ratio of X over Y) b. Constant Proportionality from a Table 1. Graph 2. Equations (ratio of X over Y)	



ECMS 2021-2022 Essential Learnings Map

7 th grade	Math	Q1	Q2	Q3	Q4
Rational Numbers					
Standard:	7.NS.A.1.c	Demonstrate subtraction of rational numbers as adding the additive inverse, $p-q=p+(-q)$. Show that the distance between two rational numbers on the number line is the absolute value of their difference and apply this principle in real-world contexts.			
Description: Learning Outcome: Opposite Quantities combine to make zero.	Quarter 1: 1. Essential Question: What are Rational Number? a. Rational Numbers 1. Integers 2. Repeating/Terminating Decimals 3. Fractions 2. Essential Question: How do you calculate distance between two rational numbers? a. Rational Number Distance 1. Integers 2. Repeating/Terminating Decimals 3. Fractions				
Standard:	7.NS.A.2.c	Apply properties of operations as strategies to multiply and divide rational numbers.			
Description: Learning Outcome: Be able to add, subtract, multiply, and divide fractions, decimals, and mixed numbers	Quarter 1: 1. Essential Question: What ways can a negative sign be applied to fractions? a. Multiplying Rational Numbers b. Dividing Rational Numbers 2. Essential Question: How do you apply Order of Operations to solve Rational Number problems? a. Multi-Step Operations with Rational Numbers				
Standard:	7.NS.A.2.d	Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats.			
Description:	Quarter 3: 1. Essential Question: What is the difference between a repeating and terminating decimal? a. Rational Number Conversions 1. Long Division				



ECMS 2021-2022 Essential Learnings Map

7 th grade	Math	Q1	Q2	Q3	Q4
<i>Real World Application & Word Problems</i>					

Standard:	7.EE.B.3	Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. <i>For example: If a woman making \$25 an hour gets a 10% raise, she will make an additional 1/10 of her salary an hour, or \$2.50, for a new salary of \$27.50. If you want to place a towel bar 9 3/4 inches long in the center of a door that is 27 1/2 inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.</i>
Description: Learning Outcomes: Use Variables to represent quantities in a real-world or math problem, and construct simple equations and inequalities to solve problems by reasoning -Solve 2 step equations such as $2l + 2w = 54$ or $2w + 12 = 54$	Quarter 1: <ol style="list-style-type: none"> 1. Essential Question: Can money Grow? <ol style="list-style-type: none"> a. 3-Step Operation Problems with Rational Numbers <ol style="list-style-type: none"> 1. Add/Subtract/Multiply/Divide b. 4-Step Operation Problems with Rational Numbers <ol style="list-style-type: none"> 1. Add/Subtract/Multiply/Divide c. Conversions <ol style="list-style-type: none"> 1. Mental Computation 2. Estimations 	

Standard:	7.RP.A.3	Use proportional relationships to solve multistep ratio and percent problems. <i>Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.</i>
Description: Learning Outcome: Compute unit rates associated with fractions, including rates of length, area, and other quantities measured in different units.	Quarter 4: <ol style="list-style-type: none"> 2. Essential Question: How can you represent relationships if equations didn't always work? <ol style="list-style-type: none"> a. Percent <ol style="list-style-type: none"> 1. Interest 2. Commission 3. Percent Change b. Simple Interest <ol style="list-style-type: none"> 1. $A = P(1 + rt)$ 2. Commission 	



Solve problems involving scale drawings of geometric figures including computing actual lengths and areas of scale drawings.	
---	--



ECMS 2021-2022 Essential Learnings Map

7 th grade	Math	Q1	Q2	Q3	Q4
Geometry					
Standard:	7.G.A.2	Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.			
Description: Learning Outcome: Describe the 2-dimensional figures that result from slicing 3-dimensional figures in cross sections of right rectangular figures.	Quarter 2: <div>1. Essential Question: How do you construct geometric triangles from given conditions? <div>a. Drawing Triangles <div>1. Creating Triangles from angles</div><div>2. Creating Triangles form sides</div></div></div> <div>2. Essential Question: What classifies as a triangle? <div>a. Types of Triangles <div>1. Unique Triangle</div><div>2. No Triangle</div></div></div>				

7 th grade	Math	Q1	Q2	Q3	Q4
Circles					
Standard:	7.G.B.4	State the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.			
Description:	<u>Quarter 2:</u> <div>1. Essential Question: What is the Circumference of a Circle? a. Circumference 1. Define Pi 2. Define Circumference 3. Formula for the Circumference of a Circle i)Formula: $C=2\pi r$</div> <div>2. Essential Question: What is the Area of a Circle? a. Circles 1. Radius of Circle i)Formula: $r = C/2\pi$ 2. Diameter of Circle i)Formula: $2r$ 3. Area of a Circle i) Formula: $A=\pi r^2$</div> <div>3. Essential Question: What is the relationship between the circumference and area of a circle? a. Relationships between Area & Circumference</div>				



ECMS 2021-2022 Essential Learnings Map

7 th grade	Math	Q1	Q2	Q3	Q4
Probability w/Ratios & Inferences					
Standard:	7.SP.A.2	Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. <i>For example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be.</i>			
Description: Evidence Outcome: Understand that statistics can be used to gain information about a population by examining a sample of the population Generalizations about a population from a sample are only valid if the sample is representative of the population Draw inferences about a population	Quarter 2: 1. Essential Question: How can a random sample be used to draw inferences about a population? a. Inferences 1. Random Sample 2. Multiple Samples				

<u>Standard:</u>	7.SP.C.7.b	Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process. <i>For example, find the approximate probability that a spinning penny will land heads up or that a tossed paper cup will land open-end down. Do the outcomes for the spinning penny appear to be equally likely based on the observed frequencies?</i>
Description:	<u>Quarter 2:</u> 1. Essential Question: What is a Probability Model? a. Probability Model 1. Uniform 2. Non-Uniform	



ECMS 2021-2022 Essential Learnings Map

Standard:	7.SP.C.8.b	Represent sample spaces for compound events using methods such as organized lists, tables, and tree diagrams. For an event described in everyday language (e.g., “rolling double sixes”), identify the outcomes in the sample space which compose the event.
Description: Evidence Outcome: -Explain that the probability of a chance event is a number between 0 and 1 and expresses the likelihood of an event occurring -Approximate the probability of a chance event over time. Rolling a number cube six hundred times will probably give a 3 100 times -Develop a probability model by assigning equal probability to all outcomes	Quarter 2: 1. Essential Question: How can diagrams be used to represent data? a. Compound Events 1. Tables 2. Tree Diagram 3. Organized Lists	

Standard:	7.RP.A.2.a	Determine whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin.
Description: Learning Outcomes: -Use measures of center and variability to draw informal comparative inferences.	Quarter 3: 1. Essential Question: What determines if two quantities are in a proportional relationship? a. Tables 1. Reading a Table 2. Creating a Table 3. Comparing Tables b. Graph 1. Observing the Graph 2. Graphing	



ECMS 2021-2022 Essential Learnings Map

	3. Comparing Graphs
--	---------------------

7 th grade	Math	Q1	Q2	Q3	Q4
Angles					
Standard:	7.EE.A.2	Use facts about supplementary, complementary, vertical, and adjacent angles in a multistep problem to write and solve simple equations for an unknown angle in a figure.			
Description:	Quarter 3: <div>1. Essential Question: What are the different relationships between different types of Angles? <div>a. Types of Angles <div>1. Supplementary</div><div>2. Complementary</div><div>3. Vertical</div><div>4. Adjacent</div></div><div>b. Relationships of Angles <div>1. Supplementary</div><div>2. Complementary</div><div>3. Vertical</div><div>4. Adjacent</div></div></div> <div>2. Essential Question: How do you find an unknown angle? <div>a. Finding Unknown Angles <div>1. Finding a Supplementary Angle</div><div>2. Finding a Complementary Angle</div><div>3. Finding a Vertical Angle</div><div>4. Finding an Adjacent Angle</div></div></div>				

7 th grade	Math	Q1	Q2	Q3	Q4
<i>Volume</i>					
<u>Standard:</u>	7.G.B.6	Solve real-world and mathematical problems involving area, volume, and surface area of two and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.			
<u>Description:</u>	<u>Quarter 4:</u> 1. Essential Question: What is Volume? a. Volume 1. Formulas of Volume				



8th Grade Math

8 th Grade	Math	Q1	Q2	Q3	Q4
<i>Real Numbers System</i>					
Standard:	8.NS.A.1	Demonstrate informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually, and convert a decimal expansion which repeats eventually into a rational number. Define irrational numbers as numbers that are not rational.			
Description:	Quarter 1: 1. Essential Questions: How many irrational numbers exist? a. Repeated Decimal to Fraction 1. Patterns 2. Ending in zero				
Standard:	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.			
Description:	Quarter 1: 1. Essential Questions: How do you use a number line to compare the size of 2 irrational numbers? a. Number line b. Comparing irrational c. Expansion of Square roots				
Standard:	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 (up to 100) and cube roots of small perfect cubes (up to 64). Know that $\sqrt{2}$ is irrational.			
Description:	Quarter 1: 1. Essential Questions: How do you tell if a number is a perfect square or cube? a. Square Roots b. Squares to Cubes c. Cube Roots				
Standard:	8.EE.A.4	Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notations 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			



Description: Evidence Outcomes: Know and apply the properties of integer exponents	Quarter 4: 1. Essential Questions: How do you use scientific notation? a. Significant figures b. Scientific notions 2. Essential Questions: Why is it important to perform operation on scientific notation vs standard form? a. Powers of 10 b. Expanded form to scientific notation
---	--

8 th Grade	Math	Q1	Q2	Q3	Q4
<i>Solving Functions (linear and nonlinear)</i>					
	Standard:	8.EE.C.7.a	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).		
	Description: Solve linear equations with rational number coefficients including equations with variables on both sides and using distributive properties	Quarter 1: 1. Essential Questions: How do you determine the number of solutions to a linear equation? a. Laws of Exponents b. One variable 1. Expanding expressions 2. Combining like terns c. Number of solutions 1. One Solution 2. No solution 3. Infinitely many Solutions d. Isolate a Variable 1. Input and Output Quarter 2: 2. Essential Questions: How do you create expressions and equations to represent real world problems? a. Forms of Equations 1. Slope Intercept form 2. Point Slope form b. Create an Equation 1. One Solution 2. No solution 3. Infinitely many Solutions			
	Standard:	8.EE.C.8.b	Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. <i>For example, $3x+2y=5$ and $3x+2y=6$ have no solution because $3x+2y$ cannot simultaneously be 5 and 6.</i>		



Description:	Quarter 2: <ol style="list-style-type: none"> Essential Question: What are the disadvantages of having two methods of solving systems of linear equations? <ol style="list-style-type: none"> Substitution <ol style="list-style-type: none"> Basic Complex Elimination <ol style="list-style-type: none"> Basic Complex Essential Question: How do you determine which method is best to solve the system of equations? <ol style="list-style-type: none"> Substitution Elimination
---------------------	---

8th Grade	Math	Q1	Q2	Q3	Q4
Congruencies and Similarities					
	Standard:	8.G.A.2	Demonstrate 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.		
	Description:	<u>Quarter 1:</u> 1. Essential Question: How to you use congruencies in rotations, reflections, and translations? a. Rotations 1. Two-dimensional figure 2. Two-dimensional figure with coordinates b. Reflections 1. Two-dimensional figure 2. Two-dimensional figure with coordinates c. Translations 1. Two-dimensional figure 2. Two-dimensional figure with coordinates d. Triangles 1. ASA 2. SSS 3. SAS 2. Essential Question: How can you use sequence to achieve congruency between two-dimensional figures. a. Sequence to Congruent 1. Two-dimensional figure 2. Two-dimensional figure with coordinates			
	Standard:	8.G.A.4	Demonstrate 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. CCSS: 8.G.A.4		
	Description:	<u>Quarter 1:</u> 1. Essential Question: How can you use physical models to understand similarities? a. Shapes b. Angles c. Dilations			



8 th Grade	Math	Q1	Q2	Q3	Q4
Graphing Functions					
Standard:	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.			
Description:	Quarter 2:				
Use similar triangles to explain why the slope of is the same between any distinct points.	1. Essential Question: How does the graph represent the unit rate?				
Y=mx + b	a. Proportional Relationship				
	1. Unit Rate				
	2. Slope				
	2. Essential Question: What two ways can you represent proportional relationships?				
	a. Compare Unit Rates				
Standard:	8.EE.C.8.a	Explain 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.			
Description:	Quarter 3:				
Evidence outcome:	1. Essential Questions: What information can you get from the graph of two linear equations?				
Define a function as a rule that assigns to each input exactly one output	a. Linear equation				
Prove that the graph of a function is the set of ordered pairs consisting of an input and output	1. Types of slope				
Compare properties of two functions each represented in different ways	2. Y-intercept				
Construct a function to model a linear relationship between two quantities.	3. X-intercept				
Determine rate of change and initial value of a function from a description	b. Construct the Slope				
Describe quantitatively the functional relationships between two quantities by analyzing a graph	1. Rise over Run (Triangle)				
Use the equation of a linear model to solve problems in	2. Two Points on the Graph				
	3. Types of Slopes				
	c. Equation Forms				
	1. Slope intercept form				
	2. Point slope form				
	3. Standard Form				
	d. Two Linear equations				
	1. Points of intersection				



the context of bivariate measurement data.	
--	--

Standard:	8.F.A.3	Interpret the equation $y=mx+b$ as defining a linear function, whose graph is a straight line; give examples of functions that are not linear. <i>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.</i>
Description:	Quarter 3: <ol style="list-style-type: none"> Essential Questions: What is the difference between a linear function and a nonlinear functions graph? <ol style="list-style-type: none"> Nonlinear <ol style="list-style-type: none"> Tables Forms Graphs Identify Linear and Nonlinear Graphs 	

8 th Grade	Math	Q1	Q2	Q3	Q4
Pythagorean Theorem					
	Standard:	8.G.B.6	Explain a proof of the Pythagorean Theorem and its converse.		
	Description:	<u>Quarter 3:</u> <div><div>1. Essential Questions: What is the Pythagorean Theorem?<div><div>a. Pythagorean Theorem</div><div><div>1. Solve Problems for unknown side</div><div>2. Proof</div></div><div>b. Converse</div><div><div>1. Statements</div><div>2. Pythagorean Theorem</div></div></div></div><div>2. Essential Question: How does the Pythagorean Theorem apply to the real world?<div><div>a. Distance Between Points</div><div><div>1. Distance formula</div><div>2. Pythagorean theorem</div></div><div>b. Real world Problems</div><div><div>1. Triangles</div><div>2. Pythagorean Theorem</div></div></div></div></div>			

8 th Grade	Math	Q1	Q2	Q3	Q4
-----------------------	------	----	----	----	----



ECMS 2021-2022 Essential Learnings Map

Bivariate Data					
	Standard:	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.		
	Description: Essential Outcome: Know that straight lines are widely used to model relationships between 2 quantitative variables.	Quarter 3: 1. Essential Question: What information can scatter plots tell you about data? a. Construct Scatter Plots b. Patterns 1. Outliers 2. Linear or non linear c. Line of Best Fit d. Bivariate data 1. Compare two quantities			
	Standard:	8.SP.A.4	Explain 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?		
	Description:	Quarter 4: 1. Essential Question: How can you gather information to display it to the real world? a. Categorical 1. Table			

8 th Grade	Math	Q1	Q2	Q3	Q4
Volume					
	Standard:	8.G.C.9	State the formulas for the volumes of cones, cylinders, and spheres and use them to solve real-world and mathematical problems pyramids, prisms, and cubes.		
	Description:	Quarter 4: 1. Essential Questions: How are cones, cylinders, and spheres used in the real world? a. Calculate Volumes 1. Cones 2. Cylinders 3. Spheres b. Real World Problems			



Science

ECMS Essential Learning Map												
Science	6th Grade				7th Grade				8th Grade			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Earth-Sun-Moon Systems	Introduced											
Gravity & the Universe	Introduced											
Water Cycle			Introduced									
Weather & Climate			Introduced	Introduced								
Human Impact on the Environment				Introduced								
Geological Time		Introduced										
Earth's Structure	Introduced	Introduced										
Plate Tectonics		Introduced										
Basic Laws of Physics					Introduced	Introduced						
Newton's Laws					Introduced	Introduced						
Mechanical Energy						Introduced	Introduced					
Conservation of Energy						Introduced	Introduced					
Electromagnetic Forces							Introduced					
Properties of Waves							Introduced					
Classification of Matter								Introduced				
Ecosystems									Introduced			
Cells										Introduced		
Human Body Systems										Introduced		
Reproduction of Organisms											Introduced	
Hereditary											Introduced	
Evolution											Introduced	Introduced
Natural Selection												Introduced
Adaptations												Introduced



6th Grade Science

- **Earth-Sun-Moon Systems**
 - **Standard: MS ESS 1-1**
 - Develop and use a model of the Earth-sun-moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and moon, and seasons.
 - **Essential Question**
 - **How do the movements of the Sun, Earth, and Moon influence the seasons, phases of the Moon, and eclipses?**
 - Instructional Units
 - Seasons
 - Lunar phases
 - Eclipses
- **Gravity and the Universe**
 - **Standard: MS ESS 1-2**
 - Develop and use a model to describe the role of gravity in the motions within galaxies and the solar system.
 - **Essential Question**
 - **What role does gravity play in the formation and motion of components within galaxies and our solar system?**
 - **What are the distinguishing properties of objects in our solar system?**
 - Instructional Units
 - Gravity
 - Formation of Galaxies & Stars
 - Earth & the Solar System
- **Earth's Structure/Plate Tectonics**
 - **Standard: MS ESS 2-3**
 - Analyze and interpret data on the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence of the past plate motions
 - **Standard: MS ESS 2-2**
 - Construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time and spatial scales.
 - **Standard: MS ESS 2-1**
 - Develop a model to describe the cycling of Earth's materials and the flow of energy that drives this process.
 - **Essential Question**
 - **How do geoscience processes shape and change Earth's surfaces over time?**
 - **Why do South America and Africa have matching coast lines?**
 - Instructional Units
 - Theory of plate tectonics
 - Cycling of materials
 - Changing earth's surface
- **Geological Time**
 - **Standard: MS ESS 1-4**
 - Construct a scientific explanation based on evidence from rock strata for how the geologic time scale is used to organize Earth's 4.6-billion-year-old history.
 - **Essential Question**
 - **How can rocks tell the story of Earth's long history?**
 - Instructional Units
 - Fossil record
 - Geological timeline
- **Water Cycle**
 - **Standard: MS ESS 2-4**
 - Develop a model to describe the cycling of water through Earth's systems driven by energy from the sun and the force of gravity.
 - **Essential Question**
 - **How might the water you drink today be the same water a dinosaur drank millions of years ago?**
 - **How might a single drop of water travel from a cloud to a stream to an aquifer?**
 - Instructional Units
 - Water in the atmosphere
 - Water on earth's surface
- **Weather & Climate**
 - **Standard: MS ESS 2-5**
 - Collect data to provide evidence for how the motions and complex interactions of air masses result in changes in weather conditions.
 - **Standard: MS ESS 2-6**



ECMS 2021-2022 Essential Learnings Map

- Develop and use a model to describe how unequal heating and rotation of the Earth cause patterns of atmospheric and oceanic circulation that determine regional climates.
- **Essential Question**
 - **Why is water off the coast of northern California typically colder than after further offshore?**
- Instructional Units
 - Solar Energy on Earth
 - Atmospheric & Oceanic Circulation
 - Weather Patterns
 - Climates on Earth
- **Human Impact on the Environment**
 - **Standard: MS ESS 3-3**
 - Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.
 - **Standard: MS ESS 3-4**
 - Construct an argument supported by evidence for how increases in human population and per-capita consumption of natural resources impact Earth's systems.
 - **Essential Question**
 - **How can humans minimize their impact on land, water, and the atmosphere?**
 - **How have activities caused the rise in global temperatures and what is the environmental impact of global warming?**
 - **What can patterns of night and light tell us about the human population and resource use?**
 - Instructional Units
 - Impact on Land
 - Impact on Water
 - Impact on Atmosphere
 - Global Warming
 - Effect of Human Population on Natural Resources



7th Grade Science

- **Basic Laws of Physics**
 - **Standard: MS PS 2-2**
 - Plan an investigation to provide evidence that the change in an objects motion depends on the sum of the forces on the object and the mass of the object.
 - **Standard: MS PS 2-1**
 - Apply Newton's Third Law to design a solution to a problem involving the motion of two colliding objects.
 - **Essential Questions**
 - **How can you describe the position and motion of a train when looking out the window?**
 - **How does air push an airboat forward?**
 - **What pulls a skydiver to the ground?**
 - Instructional Units
 - Newton's Laws of Physics
 - Position and Motion
 - Force & Acceleration
 - Force Pairs
 - Gravitational Force
- **Mechanical Energy**
 - **Standard: MS PS 3-1**
 - Construct and interpret graphical displays of data to describe the relationships of kinetic energy to the mass of an object and the speed of an object.
 - **Standard: MS PS 3-2**
 - Develop a model to describe that when the arrangement of objects interacting at a distance changes, different amounts of potential energy are stored in the system.
 - **Standard: MS PS 3-5**
 - Construct, use, and present arguments to support the claim that when the kinetic energy of an object changes, energy is transferred to or from the object.
 - **Essential Question**
 - **What role does energy play in an amusement park ride?**
 - Instructional Units
 - Kinetic Energy
 - Potential Energy
 - Conservation of Energy
- **Electromagnetic Forces**
 - **Standard: MS PS 2-3**
 - Ask questions about data to determine the factors that affect the strength of electric and magnetic forces.
 - **Standard: MS PS 2-5**
 - Conduct an investigation and evaluate the experimental design to provide evidence that fields exist between objects exerting forces on each other even though the objects are not in contact.
 - **Essential Questions**
 - **How is a battery powered fan similar to a hand crank flashlight?**
 - Instructional Units
 - Magnetic Forces
 - Electric Forces
 - Simple Circuits
 - Electromagnetism
- **Properties of Waves**
 - **Standard: MS PS 4-1**
 - Use mathematical representations to describe a simple model for waves that includes how the amplitude of a wave is related to the energy in the wave.
 - **Standard: MS PS 4-2**
 - Develop and use a model to describe that waves are reflected, absorbed or transmitted through various materials.
 - **Essential Question**
 - **Why can you feel thunder?**
 - **How does a rainbow form?**
 - **How can you talk to someone when they live across the world?**
 - Instructional Units
 - Properties of Waves
 - Mechanical Wave Interactions
 - How light travels
 - Reflection



- Refraction
- Color & Light
- Information & Technology
- **Classification of Matter**
 - **Standard: MS PS 1-1**
 - Develop models to describe the atomic composition of simple molecules and extended structures.
 - **Standard: MS PS 1-4**
 - Develop a model that predicts and describes changes in particle motion, temperature, and state of a pure substance when thermal energy is added or removed.
 - **Standard: MS PS 1-2**
 - Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred.
 - **Standard: MS PS 1-5**
 - Develop and use a model to describe how the total number of atoms does not change in a chemical reaction and thus mass is conserved.
 - **Essential Question**
 - **What makes popcorn kernels pop?**
 - **What conditions are needed for a substance to freeze and boil at the same time?**
 - **Why do some substances dissolve in water and others do not?**
 - **How does wood change when it burns?**
 - Instructional Units
 - Energy & Matter
 - States of Matter
 - Atomic structure
 - Properties & Changes
 - Conservation of Matter



8th Grade Science

- **Ecosystems**
 - **Standard: MS LS 1-6**
 - Construct a scientific explanation based on evidence for the role of photosynthesis in the cycling of matter and flow of energy into and out of organisms.
 - **Standard: MS LS 1-7**
 - Develop a model to describe how food is rearranged through chemical reactions forming new molecules that support growth and/or release energy as this matter moves through an organism.
 - **Standard: MS LS 2-1**
 - Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.
 - **Standard: MS LS 2-2**
 - Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.
 - **Standard: MS LS 2-3**
 - Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem
 - **Standard: MS LS 2-4**
 - Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.
 - **Essential Questions**
 - **How does a sea slug get energy from the Sun?**
 - **How do snow geese respond to the environment around them?**
 - **How are populations affected by changes to a forest ecosystem when it is destroyed by fire?**
 - **What can be done to protect the endangered gray wolf and its ecosystem in Yosemite National Park?**
 - Instructional Units
 - Photosynthesis & Cellular Respiration
 - Flow of Energy/Food Webs
 - Producers & Consumers
 - Cycling of Matter
 - Resource and their Effect on Ecosystems
 - Interactions Within Ecosystems
 - Changing Ecosystems
 - Biodiversity (Variations in Populations)
- **Cells**
 - **Standard: MS LS 1-1**
 - Conduct an investigation to provide evidence that living things are made of cells; either one cell or many different numbers and types of cells.
 - **Standard: MS LS 1-2**
 - Develop and use a model to describe the function of a cell as a whole and ways the parts of cells contribute to the function.
 - **Standard: MS LS 1-3**
 - Use argument supported by evidence for how the body is a system of interacting subsystems composed of groups of cells.
 - **Essential Question**
 - **How does a microscopic amoeba perform all the same functions that you do to stay alive?**
 - Instructional Unit
 - Classification of cells
 - Singular v Multicellular
 - Prokaryotic v Eukaryotic
 - Animal v Plant
 - Structure & function
- **Human Body Systems**
 - **Standard: MS LS 1-3**
 - Use argument supported by evidence for how the body is a system of interacting subsystems composed of groups of cells.
 - **Standard: MS LS 1-8**
 - Gather and synthesize information that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or storage as memories.
 - **Essential Question**
 - **How do your organ systems work together to perform life functions?**
 - Instructional Unit
 - Levels of organization



- Circulatory & Respiratory Systems
 - Excretory & Digestive
 - Skeletal & Muscular
 - Nervous System
- **Reproduction of Organisms/Hereditary**
 - **Standard: MS LS 3-2**
 - Develop and use a model to describe why asexual reproduction results in offspring with identical genetic information and sexual reproduction results in offspring with genetic variation.
 - **Standard: MS LS 3-1**
 - Develop and use a model to describe why structural changes to genes (mutations) located on chromosomes may affect proteins and may result in harmful, beneficial, or neutral effects to the structure and function of the organism.
 - **Essential Question**
 - **Why do some offspring look like their parents but others do not?**
 - Instructional Units
 - Asexual v Sexual
 - DNA
 - Inheritance
 - Punnett Squares
 - Mutations
 - Reproduction & Growth of Plants
- **Evolution**
 - **Standard: MS LS 4-1**
 - Analyze and interpret data for patterns in the fossil record that document the existence, diversity, extinction, and change of life forms throughout the history of life on Earth under the assumption that natural laws operate today as in the past.
 - **Standard: MS LS 4-2**
 - Apply scientific ideas to construct an explanation for the anatomical similarities and differences among modern organisms and between modern and fossil organisms to infer evolutionary relationships
 - **Standard: MS LS 4-3**
 - Analyze displays of pictorial data to compare patterns of similarities in the embryological development across multiple species to identify relationships not evident in the fully formed anatomy.
 - **Standard: MS LS 4-4**
 - Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment.
 - **Essential Question**
 - **Why does this butterfly, when it stretches its wings, look like a face of an owl?**
 - **Why are there so many different breeds of dogs?**
 - **How do whale pelvic bones show evidence of evolution?**
 - Instructional Units
 - Theory of evolution
 - Fossil & Biological Evidence for Evolution
 - Homologous/analogous structures
 - Phylogenetic Trees
 - Theory of Natural Selection
 - Adaptations
 - Artificial selection



Social Studies

6th Grade Social Studies

6th Grade Social Studies Curriculum Map

Social Studies	6th Grade			
	Q1	Q2	Q3	Q4
Columbian Exchange	Green	Red		
History	Green	Yellow	Yellow	Red
Economics	Green	Yellow	Red	
Civics	Red			
Primary/Secondary	Green	Yellow	Yellow	Red

6th	Social Studies	Q1	Q2	Q3	Q4
Columbian Exchange					
	Standard:	1 & 2	The historical eras, individuals, groups, ideas, and themes within regions of the Western Hemisphere.		
	Description:	<ul style="list-style-type: none">Quarter 1 & 2:<ol style="list-style-type: none">How did trade networks, exploration, and colonization lead to the spread of ideas and resources in the Western Hemisphere?What are examples of human and natural resources found in the Western Hemisphere?Essential question: What is the importance of using various geographic tools to analyze topics?How do the varying perspectives about the Columbian Exchange reflects its belief about its impact on history?			
6th	Social Studies	Q1	Q2	Q3	Q4
Economic Systems					
	Standard:	Economics 1 & 2	Investigate how societies create different economic systems in the Western Hemisphere.		
	Description:	<ul style="list-style-type: none">Quarter 1,2,3,4<ol style="list-style-type: none">By Compare and contrast forms of government and economic components what can we learn?			



ECMS 2021-2022 Essential Learnings Map

2. What is the importance in identifying examples of political and economic development in key areas of the Western Hemisphere?

3. How does the type of government system predict the economic system?

		LEWIS 2021-2022 Essential Learnings Map				
		2. What is the importance in identifying examples of political and economic development in key areas of the Western Hemisphere?				
		3. How does the type of government system predict the economic system?				
6th		Social Studies	Q1	Q2	Q3	Q4
Primary/Secondary Documents						
	Standard:	History 1	Analyze and interpret primary and secondary sources to ask and research historical questions about the Western Hemisphere			
	Description:	<ul style="list-style-type: none">Quarter 1,2,3,4 <p>1.Discover how primary and secondary sources, as windows on the past, allow historians to access and evaluate multiple perspectives of various events and time periods?</p> <p>2.What key historical beliefs and ideals of Western civilizations have been handed down and are evident in today’s world?</p> <p>3.What stories emerge from historians’ interpretations of historical sources (e.g. the Mayan calendar or the Rosetta Stone)?</p>				
6th		Social Studies	Q1	Q2	Q3	Q4
Civics						
	Standard:	Civics 2, Civics 1	Analyze the interconnectedness of the United States and other nations			
	Description:	<ul style="list-style-type: none">Quarter 1 <p>1.Who has the power to determine an individual’s rights?</p> <p>2. How do civil rights change by culture, location, and historical context?</p> <p>3.In what countries in the Western Hemisphere have the rights of citizens been limited? How? Why?</p>				
6th		Social Studies	Q1	Q2	Q3	Q4



History			
	Standard:	1 & 2	Identify ways different cultures record history in the Western Hemisphere.
	Description:	<p>Quarter 1,2,3,4</p> <p>1.How important were the ancient civilizations of the Western Hemisphere, including the Maya, Aztec, Inca, early Native American cultures of North America?</p> <p>2. What can we learn by Analyzing the interactions between human and physical systems in the Western Hemisphere are both positive and negative?</p> <p>3. Who were the major explorers and colonizers of the Western Hemisphere?</p>	



7th Grade Social Studies

7th	Social Studies	Q1	Q2	Q3	Q4
Geographical implication					
	Standard:	Geography 1	Use geographic tools and resources to research topics in the Eastern Hemisphere to make geographic inferences and predictions.		
	Description:	<ul style="list-style-type: none">Quarter 1:<ol style="list-style-type: none">Essential question: How are different types of maps important in understanding various types of information?<ol style="list-style-type: none">Review different types of maps such as population, physical, political.Essential question: What is the importance of using various geographic tools to analyze topics?<ol style="list-style-type: none">Geographic benefits for protectionGeographic benefits for survival			
7th	Social Studies	Q1	Q2	Q3	Q4
Economic Systems					
	Standard:	Economics 2	Investigate the role of consumers within the Eastern Hemisphere.		
	Description:	<ul style="list-style-type: none">Quarter 1,2,3:<ol style="list-style-type: none">Essential question: What are the similarities and differences between different markets in the Eastern Hemisphere?<ol style="list-style-type: none">Review different styles of economies.Review differences in loansSummarize policy of interestReview inflation			
7th	Social Studies	Q1	Q2	Q3	Q4
Primary/Secondary Documents					



ECMS 2021-2022 Essential Learnings Map

	Standard:	History 1	Use a variety of primary and secondary sources from multiple perspectives to formulate an appropriate thesis supported by evidence.			
	Description:	<ul style="list-style-type: none">Quarter 1:<ol style="list-style-type: none">Essential question: How can various primary and secondary perspectives in history be beneficial in understanding past and current issues?<ol style="list-style-type: none">Describe the difference between Primary and secondary sourcesReview sources from certain time periods to discuss perspectives under which they were written.Apply perspective to own writing.				
7th		Social Studies	Q1	Q2	Q3	Q4
Societal Differences						
	Standard:	History 2	Analyze historical time periods and patterns of continuity and change, through multiple perspectives, within and among cultures and societies.			
	Description:	<ul style="list-style-type: none">Quarter 1,2,3:<ol style="list-style-type: none">Essential question:How have ideas fundamentally changed various cultures in the Eastern Hemisphere?<ol style="list-style-type: none">Review civilization's GovernmentReview civilization's Religious implicationsReview civilization's ArtsReview civilization's Political structuresReview civilization's Economy systemReview civilization's Social stratifications				
7th		Social Studies	Q1	Q2	Q3	Q4
Civic responsibilities						
	Standard:	Civics 2, Civics 1	Analyze the origins, structures, and functions of governments to evaluate the impact on citizens and the global society.			
	Description:	<ul style="list-style-type: none">Quarter 1,2,3,4:<ol style="list-style-type: none">Essential question: What are Fundamental Human Rights?<ol style="list-style-type: none">Review current human rightsCompare to previous civilizations rightsQuarter 1,2,3,4:<ol style="list-style-type: none">Essential question: How do international laws and organizations help encourage ethical governmental practices?				



ECMS 2021-2022 Essential Learnings Map

1. Review governments though historical

2. Display neccesitation of new rules and

time eras

focuses



8th Grade Social Studies

8 th Grade	Social Studies	Q1	Q2	Q3	Q4
Declaration of Independence					
	Standard:	MS SS History 1.	Investigate and evaluate primary and secondary sources about United States history from the American Revolution through Reconstruction to formulate and defend a point of view with textual evidence.		
	Description:	Describe the impact of Thomas Paine’s Pamphlet Common Sense. What were the potential consequences for the delegates who chose to declare independence? What are some of the grievances Jefferson included in the Declaration. What justifications for separation were included in the Declaration of Independence?			
	Standard:	MS SS History 2	The historical eras, individuals, groups, ideas and themes from the origins of the American Revolution through Reconstruction.		
	Description:	How do you think the Loyalists reacted when the Declaration of Independence was first distributed throughout the colonies? Did Parliament have the right to make laws for the 13 Colonies?			
8 th Grade	Social Studies	Q1	Q2	Q3	Q4
Constitution					
	Standard:	MS SS History 1	Investigate and evaluate primary and secondary sources about United States history from the American Revolution through Reconstruction to formulate and defend a point of view with textual evidence.		
	Description:	Identify the leaders of the Constitutional Convention. Compare the main differences between the two rival plans for the new Constitution Summarize compromises the delegates had to reach before the Constitution could be signed.			
	Standard:	MS SS 4 Civics	Construct an understanding of the changing definition of citizenship and the expansion of rights of citizens in the United States.		
	Description:	Explain the basic goals of the Constitution as defined by the Preamble. Identify the framework of government that the Constitution established. Summarize the seven basic principles of American Government. Identify the powers and duties of the legislative branch, executive branch, and judicial branch of the American government.			

8 th Grade	Social Studies	Q1	Q2	Q3	Q4
Structure of Government					



ECMS 2021-2022 Essential Learnings Map

	Standard:	MS SS Civics 1	Construct an understanding of the changing definition of citizenship and the expansion of rights of citizens in the United States.				
	Description:	Identify the rights that the Bill of Rights protects Summarize how later amendments expanded democratic rights.					
	Standard:	MS SS Civics	The purpose and place of rule of law in a constitutional system.				
	Description:	Why is bullying an example of being an irresponsible citizen Identify the Origin of Judicial Review Analyze the Principle of Individual Rights How much power should the government have?					
8 th Grade		Social Studies		Q1	Q2	Q3	Q4
Civil War							
	Standard:	MS SS History 2	The historical eras, individuals, groups, ideas and themes from the origins of the American Revolution through Reconstruction				
	Description:	Summarize the impact of the Dred Scott case on the nation. What motivated the South to fight in the Civil War? Identify the victories of the Confederates and the Union in the early years of the war. Describe some ways in which women contributed to the war effort.					
	Standard:	MS SS History 1	Investigate and evaluate primary and secondary sources about United States history from the American Revolution through Reconstruction to formulate and defend a point of view with textual evidence				
	Description:	How did Jefferson Davis use the Declaration of Independence to justify secession? Analyze the impact of the Fugitive Slave Act Explain the Constitutional issues regarding States Rights in the Civil War Why was the Emancipation Proclamation issued? Why does Abraham Lincoln deliver the Gettysburg Address, and what effect does he hope it will have on the nation?					



Electives

Art

General Art Classes	Mixed Grade Levels				Content Standard				Substandard			
	Q1	Q2	Q3	Q4	1	2	3	4	1	2	3	
Elements of Art	Green	Yellow	Yellow	Red	Grey						Grey	
Principles of Art	Green	Yellow	Yellow	Red	Grey						Grey	
Art Critique	Green	Yellow	Yellow	Red	Grey			Grey			Grey	
Use of Media	Green	Yellow	Red	Red			Grey			Grey		
Art History	Green	Yellow	Yellow	Red	Grey			Grey		Grey		
Drawing Techniques	Green	Yellow	Yellow	Red		Grey	Grey		Grey			
Painting Techniques	Green	Yellow	Yellow	Red		Grey	Grey		Grey			
Peer Critique	Green	Yellow	Yellow	Red	Grey			Grey		Grey		
Final Presentation	Green	Yellow	Yellow	Red	Grey			Grey		Grey		

Visual Art Standard	Subtopic
1. Observe and Learn to Comprehend	1. The characteristics and expressive features of art and design are used in unique ways to respond to two- and three-dimensional art
	2. Art created across time and cultures can exhibit stylistic differences and commonalities
	3. Specific art vocabulary is used to describe, analyze, and interpret works of art
2. Envision and Critique to Reflect	1. Visual symbols and metaphors can be used to create visual expression
	2. Key concepts, issues, and themes connect the visual arts to other disciplines such as the humanities, sciences, mathematics, social studies, and technology
3. Invent and Discover to Create	1. Plan the creation of a work of art
	2. Explore various media, materials, and techniques used to create works of art
	3. Utilize current, available technology to refine ideas in works of art
4. Relate and Connect to Transfer	1. Critical thinking in the arts transfers to multiple lifelong endeavors



ECMS 2021-2022 Essential Learnings Map

	2. Visual arts impact community, cultural traditions, and events
	3. Eco-art is a contemporary response to environmental issues

Art History	Mixed Grade Levels				Content Standard				Substandard		
	Q1	Q2	Q3	Q4	1	2	3	4	1	2	3
4 Steps of Critique	Green	Yellow	Yellow	Red		Grey				Grey	Grey
Art Specific Vocabulary	Green	Yellow	Yellow	Red	Grey				Grey	Grey	
Ancient Art	Green	Yellow									
Greco Roman Art	Green	Yellow									
Medieval Art	Green	Yellow									
Renaissance Art		Green	Yellow								
Mannerism		Green	Yellow								
Realism		Green	Yellow								
Neoclassical		Green	Yellow								
Impressionism			Green	Yellow							
Cubism			Green	Yellow							
Expressionism			Green	Yellow							
Modern Art				Green							

Visual Art Standard	Subtopic
1. Observe and Learn to Comprehend	1. The characteristics and expressive features of art and design are used in unique ways to respond to two- and three-dimensional art
	2. Art created across time and cultures can exhibit stylistic differences and commonalities
	3. Specific art vocabulary is used to describe, analyze, and interpret works of art
2. Envision and Critique to Reflect	1. Visual symbols and metaphors can be used to create visual expression
	2. Key concepts, issues, and themes connect the visual arts to other disciplines such as the humanities, sciences, mathematics, social studies, and technology
3. Invent and Discover to Create	1. Plan the creation of a work of art
	2. Explore various media, materials, and techniques used to create works of art



ECMS 2021-2022 Essential Learnings Map

	3. Utilize current, available technology to refine ideas in works of art
4. Relate and Connect to Transfer	1. Critical thinking in the arts transfers to multiple lifelong endeavors
	2. Visual arts impact community, cultural traditions, and events
	3. Eco-art is a contemporary response to environmental issues

Painting Classes	Mixed Grade Levels				Content Standard				Substandard			
	Q1	Q2	Q3	Q4	1	2	3	4	1	2	3	4
Specific Media												
Brushes												
Papers												
Watercolor												
acrylic												
oil												
Types of Paintings												
Basic Shapes												
Abstract												
Portrait												
Landscape												
Color Mixing												
Color Wheel from Primary												
Tints and Shades												
Blending												

Visual Art Standard	Subtopic
1. Observe and Learn to Comprehend	1. The characteristics and expressive features of art and design are used in unique ways to respond to two- and three-dimensional art
	2. Art created across time and cultures can exhibit stylistic differences and commonalities
	3. Specific art vocabulary is used to describe, analyze, and interpret works of art
2. Envision and Critique to Reflect	1. Visual symbols and metaphors can be used to create visual expression



ECMS 2021-2022 Essential Learnings Map

	2. Key concepts, issues, and themes connect the visual arts to other disciplines such as the humanities, sciences, mathematics, social studies, and technology
3. Invent and Discover to Create	1. Plan the creation of a work of art
	2. Explore various media, materials, and techniques used to create works of art
	3. Utilize current, available technology to refine ideas in works of art
4. Relate and Connect to Transfer	1. Critical thinking in the arts transfers to multiple lifelong endeavors
	2. Visual arts impact community, cultural traditions, and events
	3. Eco-art is a contemporary response to environmental issues



Physical Education

<u>Colorado State Standards:</u>	(S1)Movement, Competence and Understanding.	(S2)Physical and personal wellness	(S3)Emotional and Social Wellness	(S4)Prevention and Risk Management	(EQ5)What skills enhance personal physical performance?
<u>Essential Questions:</u>	(EQ1)What activities promote healthy hearts?	(EQ2)How can skill-related activities improve overall physical performance?	(EQ3)How does individual performance affect team performance?	(EQ4)What benchmarks assess the attainment of personal fitness?	Individual Sports
<u>Content:</u>	Aerobic activities	Striking	Team Sports	Individual Fitness Plans	(S1)-Investigate individual sports and activities (ex.: golf, yoga, and pilates)(EQ2)
<u>Skills and Subtopics:</u>	<p>(S2)-Summarize heart healthy practices (ex.: proper nutrition, exercise, monitoring heart rate) (EQ1)</p> <p>(S2)-Perform aerobic exercise (EQ1)</p> <p>(S3)-Monitor personal heart rate during exercise(EQ4)</p> <p>-Apply technology to maintain a fitness journal that tracks progress toward attainment of personal goals. (EQ5)</p>	<p>(S1)-Assess the physical skills necessary to perform striking tasks (EQ2)</p> <p>(S1)-Apply striking skills in a variety of games and activities (ex.: baseball, cricket, handball, volleyball, and hockey) (EQ3)</p> <p>(S3)-Employ a scoring rubric to evaluate personal performance of striking skills.(EQ4)</p>	<p>(S1)-Recall the responsibilities of team members (EQ3)</p> <p>(S1)-Practice necessary personal performance skills for a variety of team games/sports (ex.: baseball, softball, ultimate Frisbee, soccer)(EQ3)</p> <p>(S1)-integrate personal skills in team sport play(EQ3)</p> <p>(S3)-summarize personal contributions to team success (EQ3)</p>	<p>(S2)-Compare and contrast personal fitness goals and achievement of goals (EQ4)</p> <p>(S2)-Demonstrate the attainment of fitness goals(EQ4)</p> <p>-Determine immediate future and lifelong fitness goals (EQ4)</p> <p>(S3)-Create a rubric to document and assess future and lifelong fitness goals(EQ4)</p>	<p>(S3)-Assess the lifelong benefits of individual sports (EQ2)</p> <p>-Select a personal individual sport to practice</p> <p>(EQ4)-Apply the appropriate technique in the practice of the chosen individual sport</p> <p>(S2)-Apply technology to maintain a fitness journal that tracks progress towards attainment of personal goals. (EQ4)</p>



Computers

Intro to Coding

Algorithms & Programming

Grade 6

Intro to Coding (6 th Grade)	6th Grade			
	Q1	Q2	Q3	Q4
Create programs which specify the order (sequence)	Green	Yellow	Red	White
Appropriately name and apply variables	Green	Yellow	Yellow	Red
Combine If-statements and loops	White	Green	Yellow	Red
Creating a Program	White	Green	Yellow	Red
Data and Society	White	White	Green	Red
Physical Computing	White	White	Green	Red
Create programs	White	White	Green	Red
Work with a partner or group to create a program	Green	Yellow	Yellow	Red
Appropriately apply variables	White	White	Green	Red

The sixth-grade standards emphasize constructing programs and utilizing algorithms to accomplish a task. Students continue to decompose larger problems into smaller tasks and recognize the impacts of computing and computing devices. Students in sixth grade begin to understand the means of storing data as representations of real-world phenomena. The accurate use of terminology as well as the responsible use of technology will continue to be built upon. The foundational understanding of computing and the use of technology will be an integral component of successful acquisition of skills across content areas.

Algorithms and Programming

- 6.1 The student will construct programs to accomplish a task as a means of creative expression or scientific exploration using a block-based or text-based programming language, both independently and collaboratively,
- a. combining control structures such as if-statements and loops; and
 - b. creating clearly named variables that rep

**Context of the Standard**

Programs are collections of code organized in algorithms that can accomplish a variety of tasks. Programs can be developed to perform calculations, manipulate data, or simply to be creative. Programs can involve different control structures such as loops and if-statements; these control structures are blocks of programming that analyze variables within the program code to adjust and use accurate values as they change. Control structures help students develop their problem-solving skills and foster computational thinking. Effective variable use, to include the use of identified variables to perform operations, makes the problem-solving process easier and faster. One consideration in programming is the flow of control. This refers to the order that commands are run by the computer. The order of the commands, or sequencing, can have dramatic impacts on whether a program runs correctly. By repeating commands, the programmer has fewer lines to write, and less opportunities to make mistakes. Conditionals (if-statements) are added to a program to control whether or not commands are run. An if-statement acts as a door. If the condition is true, the door opens and commands connected to the statement are run, otherwise they are skipped. This allows programs to respond to user input and events. In elementary school, students begin their study of programming through a focus on algorithms. They work both collaboratively and individually to develop algorithms to reflect tasks in daily life; these algorithms become more complex as they recognize and use loops and events in the algorithms they construct. Although the use of plugged and unplugged activities is encouraged in early elementary, the expectation is that students use of block- and text-based programming as they progress in elementary years. Middle school continues to build on these skills as students use algorithms to build programs.

Essential Skills	Essential Questions	Essential Vocabulary
<p>Students should demonstrate these skills:</p> <ul style="list-style-type: none"> • Create programs which specify the order (sequence) in which instructions are executed within a block-based and/or text-based program. • Appropriately name and apply variables in programs to meet desired outcomes. • Combine and nest if-statements and loops to create more complex programs. • Work with a partner or group to create a program. 	<p>Students should investigate these concepts:</p> <ul style="list-style-type: none"> • What is meant by flow of control when developing programs? • What is the role of variables in program construction? • What kinds of data can be represented by variables? • What different types of data can be represented using variables? • What roles can different types of variables serve in program construction? • How does combining control structures increase efficiency in the construction of programs? 	<p>Students should apply these terms in context:</p> <ul style="list-style-type: none"> • If statement • Loop • Control structure • Flow of control

Intro to Coding

Algorithms & Programming



ECMS 2021-2022 Essential Learnings Map

Intro to Coding (7th Grade)	7th Grade			
	Q1	Q2	Q3	Q4
Create programs that include control structures or compound conditionals	Green	Yellow	Red	White
Work with a partner or group to create a program.	Green	Yellow	Yellow	Red
Appropriately apply variables in programs to meet desired outcomes.	White	Green	Yellow	Red
Combine and nest if-statements and loops to create more complex programs.	White	Green	Yellow	Red
Data and Society	White	White	Green	Red
Physical Computing	White	White	Green	Red
Create programs	White	White	Green	Red
Appropriately apply variables	White	White	Green	Red

The seventh-grade standards emphasize constructing programs and utilizing algorithms to accomplish a task. Students continue to decompose larger problems into smaller tasks and recognize the impacts of computing and computing devices. Students in seventh grade explore processing data as well as its transmission over networks. The accurate use of terminology as well as the responsible use of technology will continue to be built upon. The foundational understanding of computing and the use of technology will be an integral component of successful acquisition of skills across content areas.

Algorithms and Programming

7.1 The student will construct programs to accomplish a task as a means of creative expression or scientific exploration using a block-based or text-based programming language, both independently and collaboratively,

- a. combining control structures such as if-statements and loops including compound conditionals; and
- b. creating clearly named variables that represent different data types, including numeric and non-numeric data, and perform operations on their values.

Context of the Standard

Programs are collections of code organized in algorithms that can accomplish a variety of tasks. Programs can be developed to perform calculations, manipulate data, or simply to be creative. Programs can involve different control



structures such as loops and if-statements; these control structures are blocks of programming that analyze variables within the program code to adjust and use accurate values as they change. Control structures help students develop their problem-solving skills and foster computational thinking. Effective variable use, to include the use of identified variables to perform operations, makes the problem-solving process easier and faster. One consideration in programming is the flow of control. This refers to the order that commands are run by the computer. The order of the commands, or sequencing, can have dramatic impacts on whether a program runs correctly. By repeating commands, the programmer has fewer lines to write, and less opportunities to make mistakes. Conditionals (if-statements) are added to a program to control whether or not commands are run. An if-statement acts as a door. If the condition is true, the door opens and commands connected to the statement are run, otherwise they are skipped. This allows programs to respond to user input and events. In seventh grade, students should add compound conditionals to their programs. A compound condition specifies a combination of other conditions, allowing for two or more conditions to be tested in a single statement, such as “if-and” and “if-or.”

Essential Skills	Essential Questions	Essential Vocabulary
<p>Students should demonstrate these skills:</p> <ul style="list-style-type: none"> • Create programs that include control structures or compound conditionals using block or text-based applications. • Work with a partner or group to create a program. • Appropriately apply variables in programs to meet desired outcomes. • Combine and nest if-statements and loops to create more complex programs. 	<p>Students should investigate these concepts:</p> <ul style="list-style-type: none"> • How does combining control structures increase efficiency in the construction of programs? • What roles can different types of variables serve in program construction? • How do compound conditionals reduce the amount of code needed in a program? 	<p>Students should apply these terms in context:</p> <ul style="list-style-type: none"> • If-statements • Compound conditionals

Intro to Coding

Algorithms & Programming

Grade 8

Intro to Coding (8 th Grade)	8th Grade			
	Q1	Q2	Q3	Q4
Create programs which specify the order (sequence)	Green	Red		
Apply Variables	Green	Red		
Combine If-statements and loops		Green	Red	
Creating a Program		Green	Red	
Data and Society		Green	Red	
Physical Computing			Green	Red



ECMS 2021-2022 Essential Learnings Map

Create programs

Work with a partner or group to create a program

Define functions with parameters in program construction

The eighth-grade standards emphasize constructing programs and utilizing algorithms to accomplish a task. Students continue to decompose larger problems into smaller tasks and recognize the impacts of computing and computing devices. Students in eighth grade continue to work with data including how it can be vulnerable and how it can be protected. The accurate use of terminology as well as the responsible use of technology will continue to be built upon. The foundational understanding of computing and the use of technology will be an integral component of successful acquisition of skills across content areas.

Algorithms and Programming

8.1 The student will construct programs to accomplish a task as a means of creative expression or scientific exploration using a block-based or text-based programming language, both independently and collaboratively,

- combining control structures such as if-statements and loops including nested conditionals and loops;
- using clearly named variables that represent different data types, including numeric and non-numeric data, and perform operations on their values; and
- creates functions with parameters.

Context of the Standard

Programs are collections of code organized in algorithms that can accomplish a variety of tasks. Programs can be developed to perform calculations, manipulate data, or simply to be creative. Programs can involve different control structures such as loops and if-statements; these control structures are blocks of programming that analyze variables within the program code to adjust and use accurate values as they change. Control structures help students develop their problem-solving skills and foster computational thinking. Effective variable use including naming conventions, makes the problem-solving process easier and faster. In elementary school, students begin their study of programming through a focus on algorithms. They work both collaboratively and individually to develop algorithms to reflect tasks in daily life; these algorithms become more complex as they recognize and use loops and events in the algorithms they construct. Although the use of plugged and unplugged activities is encouraged in early elementary, the expectation is that students use of block- and text-based programming as they progress in elementary years. In seventh grade, students added compound conditionals to their programs. A compound condition specifies a combination of other conditions, allowing for two or more conditions to be tested in a single statement, such as “if-and” and “if-or.” In eighth grade, students begin to use nested control structures. Placing a structure such as a loop within another loop allows for a greater level of complexity in the program’s function. These often substitute for what would have been very large sections of repeated code. Functions are named sections of code that allow a programmer to call it from multiple locations and repeat the functionality. Parameters offer an increased level of flexibility in these functions by passing in additional information.



Essential Skills	Essential Questions	Essential Vocabulary
<p>Students should demonstrate these skills:</p> <ul style="list-style-type: none"> • Create programs which specify the order (sequence) in which instructions are executed within a block-based and/or text-based program. • Combine and nest if-statements and loops to create more complex programs. • Write programs to accomplish tasks. • Use if statements and loops to complete a task. • Define functions with parameters in program construction 	<p>Students should investigate these concepts:</p> <ul style="list-style-type: none"> • How can students use if or else statements to control programs? • How can functions be called from various locations in a program? • What are the advantages of nesting a conditional statement within another conditional statement? 	<p>Students should apply these terms in context:</p> <ul style="list-style-type: none"> • Pseudocode • Loop • If-else statement • Nesting

DJ Class - Technology

DJ Class (6 th -7 th & 8 th Grades)	6th Grade				7th Grade				8th Grade			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
History and Evolution and DJ'ing	Red				Red				Red			
Equipment Selection	Green	Red			Green	Red			Green	Red		
Basic mixer functions - levels and crossfading	Red				Red				Red			
Structure: beats, bars and phrases		Green	Red			Green	Red			Green	Red	
Set building		Green	Red			Green	Red			Green	Red	
How to DJ		Green	Yellow	Red		Green	Yellow	Red		Green	Yellow	Red
How to interact with the audience			Green	Red			Green	Red			Green	Red
How to create a 1 st and lasting impression			Red				Red				Red	
How to run DJ Business		Green	Yellow	Red		Green	Yellow	Red		Green	Yellow	Red

Essential Questions/ Subtopics

Revised: June 30, 2021



History and Evolution and DJ'ing

Essential Question: How was DJ'ing started and what are the names of those who propelled it forward, what did they do to make it a success, what technology did they use? Who are the today's DJ's and what technology are they using?

Subtopic 1: Founding Fathers of DJ'ing

Subtopic 2: Technology Evolution

Equipment Selection

Essential Question: How do we decide what equipment is needed for an event? What happens if we don't choose right?

Subtopic 1: Student will apply what they already know and make recommendations based on the events we discuss in class.

Subtopic 2: Students will learn how to make choices based on different scenarios such as purpose, venue, event and other requirements.

Basic mixer functions - levels and crossfading

Essential Question: What are the basic functions of a mixer, how do we determine what we need as there are many mixers to choose from, from very complicated Club, Sound Production, to light and compact? How do we control the volume and over all levels of the room and how to crossfade for effect and use it for crowd motivation/ participation?

Subtopic 1: Student will be given a blank template of a mixer and will work in groups to identify all the knobs

Subtopic 2: Students will then take turns telling the class what they are and ask the class what they mean for DOK Levels 3-4 (Applying/ Analyzing)

Structure: beats, bars and phrases

Essential Question: What is meant when a DJ creates structure with his/her resources (toolbox) to include setting up beats, bars, and phrases and when and how apply them to enhance your performance?

Subtopic 1: Student will learn how creating Beats, learn what bars and phrases do to enhance music mix

Subtopic 2: Students will learn where to find the functions on the mixer and how to use them

Set building

Essential Question: How does a DJ Prepare a DJ Play set? How is it organized for easy access? How do we add effects when appropriate?

Subtopic 1: Student will learn how identify and create play lists



ECMS 2021-2022 Essential Learnings Map

Subtopic 2: Students will learn how to build the lists based on software being used.

How to DJ

Essential Question: What are the main DJ Methods performers use and why are they important to know? Which one would you use and how can you apply it to what your creating?

Subtopic 1: Methods

Subtopic 2: DJ Contracts

How to interact with the audience

Essential Question: What is meant by interacting with your audience and why is important to know and why?

Subtopic 1: How to hold and speak into a microphone

Subtopic 2: How to read the audience

How to create a 1st and lasting impression

Essential Question: What is meant by creating an impression when selling yourself to a client? What are some examples that will help you win? What are some examples that won't help you in creating that lasting impression?

Subtopic 1: Student will work in groups to define how to create and good and bad impression

Subtopic 2: Students will learn to come up with ways to repair relationship broken based on a broken expectation

How to Start a Run and a Successful Business

Essential Question: How does having fun and doing what your passionate your passion about turn into putting money in your pocket? What are the essential steps to starting a DJ Business and what are the most important parts to help someone be successful and satisfied?

Subtopic 1: Students will learn, create, and implement DJ Contracts/ Agreements/ Time Management/ Building Client Relations

Subtopic 2: Students will learn all the different things that could go wrong as a DJ and go over how to avoid them and how to repair them when/ if they happen



Dance

6-8th grade Dance classes					
		Q1	Q2	Q3	Q4
	Movement fundamentals and Vocabulary				
Standard: 1.3.6; 1.5.7; 1.1.8	Demonstrate skills in foundational dance forms; Identify and demonstrate appropriate posture; various foundational dance styles				
Description:	-Foundations: pedestrian movement- students will build with examining and organising pedestrian movement as purposeful movement. Continue movements that build from the pedestrian to more skilled dance movements. students will begin to progress into demonstrating the movements on own. -Vocabulary follows the same path: begin with the known and develop vocabulary with movement skill. students will be able to execute movements by verbal cue. - Connecting movements together: sequencing the movements to assess the level of understanding in both elements of kinesthetic and vocabulary				
	Historical and Cultural Context				
Standard:	Historical lineage and culture of dance				
Description:	Students understand and relate the role of dance in culture and history. -Create a timeline of dance for various genres as a visual of how long, how many cultures and the relationship dance has with culture as it develops throughout history.				
	Historical and Cultural Context				
Standard: 3.2.7	Dance represents the culture of a society				
Description:	Observe and participate in a variety of dance forms. Utilize youtube to observe and discuss other styles of dance. These styles will then be attempted by the students with key foundational movements. Students will be challenged physically and academically with these observations so as to understand other cultural perspectives and traditions.				
	Historical and Cultural Context				
Standard: 3.1.6	Culture and Geography are reflected in the traditional dance heritage of a people				
Description:	Identifying roots of dance, significant people and theories of dance. Introducing other genres of dance discussing and physically embodying dance concepts and theories created by significant people of history. Experiment: students will utilize these movements and their own to create a dance				
	Technique- Folklorico and Intro to dance				



Standard: 1.2.7; 1.1HS	Demonstrate performance dance skills; demonstrate dance skills with technical proficiency and kinesthetic body awareness				
Description:	An in depth examination of the foundational movements by demonstration, practice, observance and correction. Students will be assessed first by instructor then later by Q4 they will be able to self assess as well as peer to peer assess				
	Nutrition				
Standard: 1.5.6	Make appropriate nutritional choices for dance performance				
Description:	Read articles on various diet choices and effect on they have on the body. Engage in group discussion with students to address false and true statements made about body image, food and health Students will create their own diet				
	Somatics				
Standard: 1.4.6; 1.1.6	Perform a basic dance warm-up; Demonstrate movement originating from a strong center				
Description:	Study of major muscle groups, skeletal structures and stretches essential to the restful and moving body. articles and worksheets on the anatomy as well in-class stretches. Dancers will design their own warm-up and cool down lesson				
	Choreography				
Standard: 2.1.7; 2.2.7; 2.6.1	Choreographic intent involves making intentional movement choices; Effective and appropriate use of dance elements (time space and energy) in the creative process; Articulate creative choices required to develop choreographic intent				
Description:	In the development of working with the 3 elements of choreography students will demonstrate the composition of movement in purposeful transition from movement to movement while utilizing choreographic elements and techniques. They will be tasked to perform directed choreography by instructor and continue to develop skills to create their own choreography				



	Introduced
	Reviewed/ Revisited
	Mastered

ECMS Essential Learning Map

Health

Health	6th Grade				7th Grade			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Mental Health								
Bullying								
Social Media								
Physical Health								
Drugs								
Building Healthy Relationships								
Spiritual Health								
Sex Education								

Essential Learnings: Middle School Health

6th Grade

• Mental Health

- **Standard: 3.4.1**
 - Understand how to be mentally and emotionally healthy.
- **Essential Question**
 - How might the ability to identify your emotions be beneficial?
- Instructional Units
 - Mental and Emotional Health
 - Managing stress and Anxiety
 - Mental Disorders
 - Suicide

• Bullying

- **Standard: 4.6.3**
 - Demonstrate ways to advocate for a positive, respectful school and community environment that supports pro-social behavior.
- **Essential Question**
 - What are the effects of bullying to an individual emotionally?
 - What does pro-social behavior look like in our community?
- Instructional Units
 - Preventing Bullying
 - Different types of bullying
 - Physical
 - Mental
 - Cyber
 - Effects of bullying mentally and physically

• Social Media

- **Standard: 3.4.2**
 - Apply effective verbal and nonverbal communication skills to enhance health.
- **Essential Question**
 - How can modern technology be positive and negative in communicating with others?
- Instructional Units



- Positive and negatives of social media
- Effective communication skills.

• Physical Health

- **Standard: 2.1.1**
 - Evaluate the validity and reliability of information, products, and services to enhance healthy eating behaviors.
- **Standard: 2.3.4**
 - Analyze how positive health behaviors can benefit people throughout their lifespan.
- **Essential Question**
 - **What positive behaviors can benefit a person's health?**
 - **How do valid and reliable sources affect healthy eating behaviors?**
- Instructional Units
 - Cardiovascular and respiratory health
 - Immunizations and physicals
 - Food and nutrition

• Drugs

- **Standard: 4.5.1**
 - Analyze the factors that influence a person's decision to use or not use marijuana, illegal drugs, prescription drugs, alcohol, and tobacco.
- **Standard: 4.5.2**
 - Demonstrate the ability to refuse marijuana, illegal drugs, abuse of prescription drugs, alcohol, and tobacco.
- **Essential Question**
 - **What are the social, economic, cosmetic, and familial consequences of drug abuse?**
 - **Why does someone become addicted?**
- Instructional Units
 - Preventing drug abuse
 - Vaping

7th Grade

• Building Healthy Relationships

- **Standard: 2.2.2**
 - Compare and contrast healthy and unhealthy family and peer relationships.
- **Essential Question**
 - **What makes a relationship "healthy"?**
 - **How might "unhealthy" family and peer relationships influence future relationships?**
- Instructional Units
 - Positive Relationships
 - Negative Relationships
 - Communicating
 - Practice good listening skills

• Social Media

- **Standard: 3.1**
 - Demonstrate effective communication skills to express thoughts and feelings appropriately.
- **Essential Question**
 - **How can modern technology be positive and negative in communicating with others?**
- Instructional Units
 - Positive and negatives of social media

• Spiritual health

- **Standard: 3.4.1**
 - Demonstrate effective communication skills to express thoughts and feelings appropriately.
- **Essential Questions**
 - **How will I find a sense of belonging?**
- Instructional Units
 - Sense of Belonging
 - Seek meaning and purpose in human existence

• Drugs

- **Standard: 4.5.1**
 - Analyze the factors that influence a person's decision to use or not use marijuana, illegal drugs, prescription drugs, alcohol, and tobacco.
- **Standard: 4.5.2**
 - Demonstrate the ability to refuse marijuana, illegal drugs, abuse of prescription drugs, alcohol, and tobacco.
- **Essential Question**



- **What are the social, economic, cosmetic, and familial consequences of drug abuse?**
 - **Why does someone become addicted?**
 - Instructional Units
 - Preventing drug abuse
 - Alcohol, Opioids, marijuana, Hallucinogens, inhalants, depressants, and stimulants
 - Vaping
- **Sex Education**
 - **Standard: 2.2.3**
 - Analyze the internal and external factors that influence sexual decision-making and activity.
 - **Standard: 2.2.4**
 - Define sexually transmitted diseases, including human immunodeficiency virus, and acquired immune deficiency syndrome.
 - **Essential Question**
 - **What are the steps I can take to practice safe sex?**
 - **What behaviors can and cannot lead to spreading STDs?**
 - Instructional Units
 - Reproductive systems
 - STI's
 - Birth control



Acknowledgment

The essential learning map was an extremely time-consuming project, requiring hours and hours of additional time beyond the normal busy schedule for the teachers.

Language Arts

Pam Murawski (6th grade) – PLC Lead
Dex DeVargas (7th Grade)
Linette Montoya (8th Grade)

Mathematics

Amanda Shade (6th Grade) – PLC Lead
Josh Davis (7th Grade)
Whitney Lujan (8th Grade)

Science

Vivian Ledesma (6th Grade)
Maeve Garvey (7th Grade) – PLC Lead
Joe Hammond (8th Grade)

Social Studies

Ron Lee (6th Grade)
Cory Rothermal (7th Grade)
Scott Hansen (8th Grade) – PLC Lead

Electives

Michael Maggrett (Art) – PLC Lead
Roger Martinez (PE)
Jeff Miller (Computer)
Sara Roybal (Dance)

Thank you all for your dedication to, and hard work on, this important project!