Carmen High School of Science and Technology: Northwest Campus Middle School
Curriculum Framework Overview

SUBJECT	GRADE 6	GRADE 7	GRADE 8
English	Engage New York Curriculum Some Core Texts Include: *-The Lightning Thief* *-Bud, Not Buddy* *-Dragonwings*	Engage New York Curriculum Some Core Texts Include: *-A Long Walk to Water* *-Lyddie* *-Narrative of the Life of Fredrick Douglas*	Engage New York Curriculum Some Core Texts Include: *-Inside Out & Back Again* *-To Kill a Mockingbird* *-The Omnivore's Dilemma: The Secrets Behind What You Eat*
Math	Engage New York Curriculum Some Topics Include: -Ratios and Unit Rates -Rational Numbers -Expressions and Equations -Statistics	Engage New York Curriculum Some Topics Include: -Rational Numbers -Percent and Proportional Relationships -Statistics and Probability -Geometry	Engage New York Curriculum Some Topics Include: - Integer Exponents and the Scientific Notation -The Concept of Congruence -Examples of Functions from Geometry -Introduction to Irrational Numbers Using Geometry
Science	Modules Covered -Forces and Motion (STC) -Properties of Matter (STC) -Biodiversity (basic cells) (STC) -Weather and Climate (STC)	Modules Covered -Simple Machines (STC) -Digestion and Motion (STC) -Respiration and Circulation (STC) -Planetary Science (FOSS) -Plate Tectonics (STC)	Modules Covered -Populations and Ecosystems (FOSS) -Exploring the Nature of Light (STC) -Mixtures, Compounds and Elements (STC) -Earth History (FOSS) -Development and Reproduction of Organisms (STC)
Social Studies	Geography and Cultures -Geography -World Cultures & Religion -Ancient Cultures & Religion	US History 1400-1865 -Native American History -American Revolution -African American History -Civil War	US History 1865- Modern Day -Reconstruction -American Cities -WWI & WWII -Civil Rights
Electives	Options: -Art -Music -Physical Education		

UPDATED 4/30/15

Appendix L.

EXPEDITIONARY LEARNING

ELA CURRICULUM: GRADES 6-8 CURRICULUM PLAN

		Module 1: Close Reading and Writing to Learn	Module 2A: Working with Evidence	Module 3A: Understanding Perspectives	Module 4: Research, Decision Making, and Forming Positions
GRADE 6	Topic	**Myths: Not Just Long Ago**	**Rules to Live By**	**The Land of the Golden Mountain**	**Insecticides: Costs vs. Benefits**
	Central Texts*	RL—*The Lightning Thief*, Rick Riordan	RL—*Bud, Not Buddy*, Christopher Paul Curtis RI—"Stanford University Commencement Address," Steve Jobs	RL—*Dragonwings*, Laurence Yep RI—"Comprehending the Calamity," Emma M. Burke	RL—*Frightful's Mountain*, Jean Craighead George RI—"The Exterminator," Kristen Weir
	Writing Tasks**	• Literary Analysis—Connecting Themes in Cronus and *The Lightning Thief* (RL.6.2, W.6.2, 6.9) • My Hero's Journey Narrative (RL.6.3, W.6.3)	• Argument: How Does Bud Use His Rules—to Survive or to Thrive? (RL.6.3, W.6.1, 6.9) • Research/Inform: "My Rule to Live By" (RL.6.3, W.6.2)	• Literary Analysis: How Do the Author's Purposes Affect the Narrator's Points of View? (W.6.2, 6.9) • Newspaper Article: How the 1906 San Francisco Earthquake and Fire Affected the People of San Francisco (W.6.2, 6.7)	• Research Simulation (W.6.7, 6.8, 6.9) • Position Paper: Do the Benefits of DDT Outweigh Its Harmful Consequences? (W.6.1, 6.9)
GRADE 7	Topic	**Journeys and Survival**	**Working Conditions**	**Slavery: The People Could Fly**	**Screen Time and the Developing Brain**
	Central Texts*	RL—*A Long Walk to Water*, Linda Sue Park RI—"Sudanese Tribes Confront Modern War," Karl Vick	RL—*Lyddie*, Katherine Patterson RI—"Commonwealth Club Address," César Chávez	RI—*Narrative of the Life of Frederick Douglass* (excerpts)	No text purchase required; students will read articles only about the adolescent brain and the effects of technology use, provided in lesson supporting materials.
	Writing Tasks**	• Literary Analysis: Writing about the Theme of Survival (RL.7.1, 7.2, W.7.2, 7.9) • Research-based Two-Voice Poem (RL.7.6, W.7.3, 7.9)	• Argument: Should Lyddie Sign the Petition? (RL.7.3, W.7.1) • Consumer's Guide to Working Conditions in the Garment Industry (W.7.2, 7.6, 7.7)	• Literary Nonfiction Analysis: Analyzing Douglass's Position in the *Narrative* (RI.7.2, 7.6, W.7.2, 7.9) • Children's Book to Retell an Episode from the *Narrative* (W.7.3, 7.9)	• Research Simulation (W.7.7, 7.8, 7.9) • Position Paper: Should the American Academy of Pediatrics raise its recommended daily entertainment screen time from two hours to four hours? (RI.7.1, W.7.1, 7.4, and 7.5)
GRADE 8	Topic	**Finding Home: Refugees**	**Working with Evidence: Taking a Stand**	**Japanese American Relations in WWII**	**Sustainability of World's Food Supply**
	Central Texts*	RL – *Inside Out & Back Again*, Thanhha Lai* RI—"The Vietnam Wars," Tod Olson	RL—*To Kill a Mockingbird*, Harper Lee RI—"Equal Rights for Women," Chisholm RI—"Ain't I a Woman?" Sojourner Truth	RI—*Unbroken: A World War II Story of Survival, Resilience, and Redemption*, Laura Hillenbrand	RI—*The Omnivore's Dilemma: The Secrets Behind What You Eat*, Michael Pollan (Young Readers' Edition)
	Writing Tasks**	• Literary Analysis: Explain the Significance of the Novel's Title (RL.8.1, 8.3, RI.8.1, W.8.2, 8.9) • Research-based Free Verse Narrative Poems: "Inside Out" and "Back Again" (RI.8.1, 8.2, W.8.3, 8.9)	• Argument: Taking a Stand (RL.8.1, 8.2, 8.3, W.8.1) • Readers Theater and Analytical Commentary: Taking a Stand in Maycomb (RL.8.11, W.8.3, 8.11)	• Informational Essay: Invisibility of Captives during WWII (RI.8.1, W.8.2, 8.9) • Research-based Narrative: Becoming Visible after Internment (RI.8.1, W.8.3)	• Research Simulation (W.8.7, 8.8, 8.9) • Position Paper: Which of Michael Pollan's Four Food Chains Would Best Feed the United States? (W.8.1, 8.9)

* This plan shows most full-length books all students read, and a few key articles. See separate document "Trade Books and Other Resources" for a complete list of resources needed in order to implement the modules.
** This plan shows the two main writing tasks per module and the standards most central to each task. See Curriculum Map for the full list of standards assessed (including the writing process and language standards).
For seventh grade specifically, two options for Module 4 will be available: 7M4A: (topic TBD) and 7M4B: "Water Is Life".

EXPEDITIONARY LEARNING

ELA CURRICULUM: GRADES 6-8 CURRICULUM PLAN (FOR ALTERNATE MODULES)

		Module 2B: Working with Evidence	Module 3B: Understanding Perspectives	Module 4B: Research, Decision Making, and Forming Positions
GRADE 6	Topic	Voices of Adversity	Sustaining the Oceans	N/A
	Central Texts*	RL - *Good Masters! Sweet Ladies! Voices from a Medieval Village*, Laura Amy Schlitz RL - *Blue Lipstick: Concrete Poems*, John Grandits RL - *Technically, It's Not My Fault: Concrete Poems*, John Grandits	RI - *World Without Fish*, Mark Kurlansky RL - *Flush*, Carl Hiassen	GRADE 7 ONLY
	Writing Tasks**	• Argument Essay: Do We Face the Same Adversities as the Voices of *Good Masters, Sweet Ladies?* (W.6.1 and 6.9) • Narrative: Giving Voice to Adversity (W.6.3, 6.11c, SL.6.4 and 6.6)	• Research (W.6.7) • Informational Consumer Guide (W.6.2)	GRADE 7 ONLY
GRADE 7	Topic	Identify and Transformation: Then and Now	N/A	Water is Life
	Central Texts*	RL - *Pygmalion*, George Bernard Shaw RI – Various informational articles about identify	Please note that, for 7th grade, alternate modules will be available for Modules 2 and 4, rather than for Modules 2 and 3.	RI– *The Big Thirst*, Charles Fishman RI–"Water Is Life," Barbara Kingsolver
	Writing Tasks**	• Argument Essay: Eliza's Changes (RL.7.1, 7.3, and W.7.1) • Advertisement Analysis and "Counter-Ad" (W.7.2a, b, c, d, e, f, 7.7, and 7.8)		• Research Simulation (W.7.7, 7.8, 7.9) • Water Management Position Paper:(RI.7.1, W.7.1, 7.4, 7.5, and L.7.6)
GRADE 8	Topic	A Midsummer Night's Dream and the Comedy of Control	The Civil Rights Movement and the Little Rock Nine	N/A
	Central Texts*	RL - *A Midsummer Night's Dream*, William Shakespeare RI – Various informational articles about Shakespeare and the universal appeal of his works	RI - *A Mighty Long Way: My Journey to Justice at Little Rock Central High School*, Carlotta Walls LaNier and Lisa Frazier Page RI - *Little Rock Girl 1957: How a Photograph Changed the Fight for Integration*, Shelley Tougas	GRADE 7 ONLY
	Writing Tasks**	• Argument Essay: Controlling Others in *A Midsummer Night's Dream* (W.8.1) • Character Confessional Narrative (RL.8.2, 8.3, W.8.3, 8.4, 8.9a, and 8.11b)	• Informational Essay: The Role of the Media in the Story of the Little Rock Nine (W.8.2) • Narrative Writing: "Snapshot in a Journey" (W.8.3)	GRADE 7 ONLY

* This plan shows most full-length books students read, and a few key articles. See separate document "Trade Books and Other Resources" for a complete list of resources needed in order to implement the modules.
** This plan shows the two main writing tasks per module and the standards most central to each task. See Curriculum Map for the full list of standards assessed (including the writing process and language standards)
For seventh grade specifically, two options for Module 4 will be available: 7M4A: (topic TBD) and 7M4B: "Water Is Life".

A Story of Ratios: A Curriculum Overview for Grades 6-8

Table of Contents

Introduction

This document provides an overview of the academic year for Grades 6 through 8, beginning with a curriculum map and followed by detailed grade level descriptions.

The curriculum map is a chart that shows, at a glance, the sequence of modules comprising each grade of the Grades 6 through 8 curriculums. The map also indicates the approximate number of instructional days designated for each module of each grade. The date approximations are based on an academic calendar beginning on 9/6/12 and ending on 6/26/13 with a testing date approximately mid-late April. Details that elaborate on the curriculum map are found in the grade-level descriptions.

Each grade-level description begins with a list of the five to seven modules that comprise the instruction of that grade. That introductory component is followed by three sections: the Summary of Year, the Rationale for Module Sequence, and the alignment chart with the grade-level standards.

The "Summary of Year" portion of each grade level includes four pieces of information:

- The critical instructional areas for the grade, as described in the Common Core Learning Standards[1] (CCLS)
- The Key Areas of Focus[2] for the grade
- The Required Fluencies for the grade
- The CCLS Major Emphasis Clusters[3] for the grade

The "Rationale for Module Sequence" portion of each grade level provides a brief description of the instructional focus of each module for that grade and explains the developmental sequence of the mathematics.

The alignment chart for each grade lists the CCLS that are addressed in each module of the grade. Note that when a cluster is referred to without a footnote, it is taught in its entirety. There are also times when footnotes are relevant to particular standards within a cluster. All standards for each grade have been carefully included in the module sequence. Some standards are deliberately included in more than one module, so that a strong foundation can be built over time. Note that the standards identified on the Pre-Post Standards[4] document as those which should be taught after the state test in April, have been intentionally aligned with the final modules of those grades.

---

[1] EngageNY: http://www.p12.nysed.gov/ciai/common_core_standards/pdfdocs/nysp12cclsmath.pdf
[2] Achievethecore: http://www.achievethecore.org/downloads/E0702_Description_of_the_Common_Core_Shifts.pdf
[3] EngageNY: http://engageny.org/sites/default/files/resource/attachments/nys-math-emphases-k-hs.pdf
[4] NYSED: http://www.p12.nysed.gov/assessment/ei/2013/draft-math-ccls-13.pdf

	Grade 6	Grade 7	Grade 8	
20 days	M1: Ratios and Unit Rates (35 days)	M1: Ratios and Proportional Relationships (30 days)	M1: Integer Exponents and the Scientific Notation (20 days)	20 days
20 days			M2: The Concept of Congruence (25 days)	20 days
20 days	M2: Arithmetic Operations Including Dividing by a Fraction (25 days)	M2: Rational Numbers (30 days)		20 days
20 days	M3: Rational Numbers (25 days)	M3: Expressions and Equations (35 days)	M3: Similarity (25 days)	20 days
20 days	M4: Expressions and Equations (45 days)	M4: Percent and Proportional Relationships (25 days)	M4: Linear Equations (40 days)	20 days
20 days				20 days
20 days		M5: Statistics and Probability (25 days)	M5: Examples of Functions from Geometry (15 days)	20 days
20 days	M5: Area, Surface Area, and Volume Problems (25 days)		M6: Linear Functions (20 days)	20 days
20 days	M6: Statistics (25 days)	M6: Geometry (35 days)	M7: Introduction to Irrational Numbers Using Geometry (35 days)	20 days

Approx. test date for Grades 6-8

Key:	Number	Geometry	Ratios and Proportions	Expressions and Equations	Statistics and Probability	Functions

Sequence of Grade 6 Modules Aligned with the Standards

Module 1: Ratios and Unit Rates
Module 2: Arithmetic Operations Including Dividing by a Fraction
Module 3: Rational Numbers
Module 4: Expressions and Equations
Module 5: Area, Surface Area, and Volume Problems
Module 6: Statistics

Summary of Year

Sixth grade mathematics is about (1) connecting ratio and rate to whole number multiplication and division and using concepts of ratio and rate to solve problems; (2) completing understanding of division of fractions and extending the notion of number to the system of rational numbers, which includes negative numbers; (3) writing, interpreting, and using expressions and equations; and (4) developing understanding of statistical thinking.

Key Areas of Focus for Grade 6: Ratios and proportional reasoning; early expressions and equations

Required Fluency:

6.NS.2	Multi-digit division
6.NS.3	Multi-digit decimal operations

CCLS Major Emphasis Clusters

Ratios and Proportional Relationships
- Understand ratio concepts and use ratio reasoning to solve problems.

The Number System
- Apply and extend previous understandings of multiplication and division to divide fractions by fractions.
- Apply and extend previous understandings of numbers to the system of rational numbers.

Expressions and Equations
- Apply and extend previous understandings of arithmetic to algebraic expressions.
- Reason about and solve one-variable equations and inequalities.
- Represent and analyze quantitative relationships between dependent and independent variables.

Rationale for Module Sequence in Grade 6

In Module 1, students build on their prior work in measurement and in multiplication and division as they study the concepts and language of ratios and unit rates. They use proportional reasoning to solve problems. In particular, students solve ratio and rate using tape diagrams, tables of equivalent ratios, double number line diagrams, and equations. They plot pairs of values generated from a ratio or rate on the first quadrant of the coordinate plane.

Students expand their understanding of the number system and build their fluency in arithmetic operations in Module 2. Students learned in Grade 5 to divide whole numbers by unit fractions and unit fractions by whole numbers. Now, they apply and extend their understanding of multiplication and division to divide fractions by fractions. The meaning of this operation is connected to real-world problems as students are asked to create and solve fraction division word problems. Students continue (from Fifth Grade) to build fluency with adding, subtracting, multiplying, and dividing multi-digit decimal numbers using the standard algorithms.

Major themes of Module 3 are to understand rational numbers as points on the number line and to extend previous understandings of numbers to the system of rational numbers, which now include negative numbers. Students extend coordinate axes to represent points in the plane with negative number coordinates and, as part of doing so, see that negative numbers can represent quantities in real-world contexts. They use the number line to order numbers and to understand the absolute value of a number. They begin to solve real-world and mathematical problems by graphing points in all four quadrants, a concept that continues throughout to be used into high school and beyond.

With their sense of number expanded to include negative numbers, in Module 4 students begin formal study of algebraic expressions and equations. Students learn equivalent expressions by continuously relating algebraic expressions back to arithmetic and the properties of arithmetic (commutative, associative, and distributive). They write, interpret, and use expressions and equations as they reason about and solve one-variable equations and inequalities and analyze quantitative relationships between two variables.

Module 5 is an opportunity to practice the material learned in Module 4 in the context of geometry; students apply their newly acquired capabilities with expressions and equations to solve for unknowns in area, surface area, and volume problems. They find the area of triangles and other two-dimensional figures and use the formulas to find the volumes of right rectangular prisms with fractional edge lengths. Students use negative numbers in coordinates as they draw lines and polygons in the coordinate plane. They also find the lengths of sides of figures, joining points with the same first coordinate or the same second coordinate and apply these techniques to solve real-world and mathematical problems.

In Module 6, students develop an understanding of statistical variability and apply that understanding as they summarize, describe, and display distributions. In particular, careful attention is given to measures of center and variability.

Alignment Chart

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 6 Modules[5]
Module 1: **Ratios and Unit Rates** (35 days)	**Understand ratio concepts and use ratio reasoning to solve problems.** **6.RP.1** Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. *For example, "The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak." "For every vote candidate A received, candidate C received nearly three votes."* **6.RP.2** Understand the concept of a unit rate a/b associated with a ratio $a:b$ with $b \neq 0$, and use rate language in the context of a ratio relationship. *For example, "This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is 3/4 cup of flour for each cup of sugar." "We paid $75 for 15 hamburgers, which is a rate of $5 per hamburger."*[6] **6.RP.3** Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. a. Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios. b. Solve unit rate problems including those involving unit pricing and constant speed. *For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?* c. Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent. d. Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.

[5] When a cluster is referred to in this chart without a footnote, the cluster is taught in its entirety.
[6] Expectations for unit rates in this grade are limited to non-complex fractions.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 6 Modules[5]
Module 2: **Arithmetic Operations Including Dividing by a Fraction** (25 days)	**Apply and extend previous understandings of multiplication and division to divide fractions by fractions.** **6.NS.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 (2/3) ÷ (3/4) and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that (2/3) ÷ (3/4) = 8/9 because 3/4 of 8/9 is 2/3. (In general, (a/b) ÷ (c/d) = ad/bc.) How much chocolate will each person get if 3 people share 1/2 lb of chocolate equally? How many 3/4-cup servings are in 2/3 of a cup of yogurt? How wide is a rectangular strip of land with length 3/4 mi and area 1/2 square mi?* **Compute fluently with multi-digit numbers and find common factors and multiples.** **6.NS.2** Fluently divide multi-digit numbers using the standard algorithm.[7] **6.NS.3** Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.[8] **6.NS.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).*
Module 3: **Rational Numbers** (25 days)	**Apply and extend previous understandings of numbers to the system of rational numbers.** **6.NS.5** Understand that 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. **6.NS.6** Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane

[7] This fluency standard begins in this module and is practiced throughout the remainder of the year.
[8] This fluency standard begins in this module and is practiced throughout the remainder of the year.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 6 Modules[5]
	with negative number coordinates. a. Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g., –(–3) = 3, and that 0 is its own opposite. b. Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes. c. Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane. **6.NS.7** Understand ordering and absolute value of rational numbers. a. Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. *For example, interpret –3 > –7 as a statement that –3 is located to the right of –7 on a number line oriented from left to right.* b. Write, interpret, and explain statements of order for rational numbers in real-world contexts. *For example, write –3°C > –7°C to express the fact that –3°C is warmer than -7°C.* c. Understand 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.* d. Distinguish comparisons of absolute value from statements about order. *For example, recognize that an account balance less than –30 dollars represents a debt greater than 30 dollars.* **6.NS.8** Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 6 Modules[5]
Module 4: **Expressions and Equations** (45 days)	**Apply and extend previous understandings of arithmetic to algebraic expressions.**[9] **6.EE.1** Write and evaluate numerical expressions involving whole-number exponents. **6.EE.2** Write, read, and evaluate expressions in which letters stand for numbers. 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.* b. Identify parts of an expression using mathematical terms (sum, term, product, factor quotient, coefficient); view one or more parts of an expression as a single entity. *For example, describe the expression 2 (8 + 7) as a product of two factors; view (8 + 7) as both a single entity and a sum of two terms.* c. Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). *For example, use the formulas $V = s^3$ and $A = 6 s^2$ to find the volume and surface area of a cube with sides of length s = 1/2.* **6.EE.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.* **6.EE.4** Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). *For example, the expressions y + y + y and 3y are equivalent because they name the same number regardless of which number y stands for.*

[9] 6.EE.2c is also taught in Module 4 in the context of geometry.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 6 Modules[5]
	Reason about and solve one-variable equations and inequalities.[10] **6.EE.5** Understand 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. **6.EE.6** Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set. **6.EE.7** Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p, q, and x are all nonnegative rational numbers. **6.EE.8** Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams. **Represent and analyze quantitative relationships between dependent and independent variables.** **6.EE.9** Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. *For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation $d = 65t$ to represent the relationship between distance and time.*
Module 5: **Area, Surface Area, and Volume Problems** (25 days)	**Apply and extend previous understandings of arithmetic to algebraic expressions.**[11] **6.EE.2** Write, read, and evaluate expressions in which letters stand for numbers. c. Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those

[10] Except for 6.EE.8, this cluster is also taught in Module 4 in the context of geometry.
[11] This standard, taught in Module 4, is practiced in this module in the context of geometry.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 6 Modules[5]
	involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). *For example, use the formulas $V = s^3$ and $A = 6 s^2$ to find the volume and surface area of a cube with sides of length $s = 1/2$.*
	Reason about and solve one-variable equations and inequalities.[12]
	6.EE.5 Understand 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.
	6.EE.6 Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.
	6.EE.7 Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p, q, and x are all nonnegative rational numbers.
	Solve real-world and mathematical problems involving area, surface area, and volume.
	6.G.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.
	6.G.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 $V = l\,w\,h$ and $V = b\,h$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.
	6.G.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.

[12] These standards, taught in Module 4, are practiced in this module in the context of geometry.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 6 Modules[5]
	6.G.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.
Module 6: **Statistics** (25 days)	**Develop understanding of statistical variability.** **6.SP.1** Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. *For example, "How old am I?" is not a statistical question, but "How old are the students in my school?" is a statistical question because one anticipates variability in students' ages.* **6.SP.2** Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape. **6.SP.3** Recognize 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 values vary with a single number. **Summarize and describe distributions.** **6.SP.4** Display numerical data in plots on a number line, including dot plots, histograms, and box plots. **6.SP.5** Summarize numerical data sets in relation to their context, such as by: a. Reporting the number of observations. b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement. 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. d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.

Sequence of Grade 7 Modules Aligned with the Standards

Module 1: Ratios and Proportional Relationships
Module 2: Rational Numbers
Module 3: Expressions and Equations
Module 4: Percent and Proportional Relationships
Module 5: Statistics and Probability
Module 6: Geometry

Summary of Year

Seventh grade mathematics is about (1) developing understanding of and applying proportional relationships; (2) developing understanding of operations with rational numbers and working with expressions and linear equations; (3) solving problems involving scale drawings and informal geometric constructions, and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume; and (4) drawing inferences about populations based on samples.

Key Areas of Focus for Grade 7: Ratios and proportional reasoning; arithmetic of rational numbers

CCLS Major Emphasis Clusters
Ratios and Proportional Relationships • Analyze proportional relationships and use them to solve real-world and mathematical problems.
The Number System • Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.
Expressions and Equations • Use properties of operations to generate equivalent expressions. • Solve real-life and mathematical problems using numerical and algebraic expressions and equations.

Rationale for Module Sequence in Grade 7

In Module 1, students build on their Grade 6 experiences with ratios, unit rates, and fraction division to analyze proportional relationships. They decide whether two quantities are in a proportional relationship, identify constants of proportionality, and represent the relationship by equations. These skills are then applied to real-world problems including scale drawings.

Students continue to build an understanding of the number line in Module 2 from their work in Grade 6. They learn to add, subtract, multiply, and divide rational numbers. Module 2 includes rational numbers as they appear in expressions and equations—work that is continued in Module 3.

Module 3 consolidates and expands students' previous work with generating equivalent expressions and solving equations. Students solve real-life and mathematical problems using numerical and algebraic expressions and equations. Their work with expressions and equations is applied to finding unknown angles and problems involving area, volume, and surface area.

Module 4 parallels Module 1's coverage of ratio and proportion, but this time with a concentration on percent. Problems in this module include simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, and percent error. Additionally, this module includes percent problems about populations, which prepare students for probability models about populations covered in the next module.

In Module 5, students learn to draw inferences about populations based on random samples. Through the study of chance processes, students learn to develop, use and evaluate probability models.

The year concludes with students drawing and constructing geometrical figures in Module 6. They also revisit unknown angle, area, volume, and surface area problems, which now include problems involving percentages of areas or volumes.

Alignment Chart

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 7 Modules[13]
Module 1: **Ratios and Proportional Relationships** (30 days)	**Analyze proportional relationships and use them to solve real-world and mathematical problems.**[14] **7.RP.1** Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. *For example, if a person walks 1/2 mile in each 1/4 hour, compute the unit rate as the complex fraction ½ / ¼ miles per hour, equivalently 2 miles per hour.* **7.RP.2** Recognize and represent proportional relationships between quantities. a. Decide 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.

[13] When a cluster is referred to in this chart without a footnote, the cluster is taught in its entirety.
[14] Percent and proportional relationships are covered in Module 4.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 7 Modules[13]
	b. Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships. c. Represent proportional relationships by equations. *For example, if total cost t is proportional to the number n of items purchased at a constant price p, the relationship between the total cost and the number of items can be expressed as t = pn.* d. Explain what a point *(x, y)* on the graph of a proportional relationship means in terms of the situation, with special attention to the points (0, 0) and (1, *r*) where *r* is the unit rate. **7.RP.3** Use proportional relationships to solve multistep ratio and percent problems. *Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.* **Solve real-life and mathematical problems using numerical and algebraic expressions and equations.**[15] **7.EE.4**[16] Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. a. Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, 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. *For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?* **Draw, construct, and describe geometrical figures and describe the relationships between them.**[17] **7.G.1** Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.

[15] The balance of this cluster is taught in Modules 2, 3, and 4.
[16] In this module, the equations are derived from ratio problems. 7.EE.4a is returned to in Module 2 and Module 3.
[17] 7.G.1 is also covered in Module 4. The balance of this cluster is taught in Module 6.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 7 Modules[13]
Module 2: **Rational Numbers** (30 days)	**Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.** **7.NS.1** Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. a. Describe situations in which opposite quantities combine to make 0. *For example, a hydrogen atom has 0 charge because its two constituents are oppositely charged.* b. Understand $p + q$ as the number located a distance $\|q\|$ from p, in the positive or negative direction depending on whether q is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts. c. Understand 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. d. Apply properties of operations as strategies to add and subtract rational numbers. **7.NS.2** Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. a. Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as $(-1)(-1) = 1$ and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts. b. Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If p and q are integers, then $-(p/q) = (-p)/q = p/(-q)$. Interpret quotients of rational numbers by describing real-world contexts. c. Apply properties of operations as strategies to multiply and divide rational numbers.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 7 Modules[13]
	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. **7.NS.3** Solve real-world and mathematical problems involving the four operations with rational numbers.[18] **Use properties of operations to generate equivalent expressions.**[19] **7.EE.2**[20] Understand 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."* **Solve real-life and mathematical problems using numerical and algebraic expressions and equations.**[21] **7.EE.4**[22] Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. a. Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, 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. *For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?*
Module 3: **Expressions and Equations** (35 days)	**Use properties of operations to generate equivalent expressions.** **7.EE.1** Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.

[18] Computations with rational numbers extend the rules for manipulating fractions to complex fractions.
[19] The balance of this cluster is taught in Module 3.
[20] In this module, this standard is applied to expressions with rational numbers in them.
[21] The balance of this cluster is taught in Module 3.
[22] In this module the equations include negative rational numbers.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 7 Modules[13]
	7.EE.2 Understand 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."*
	Solve real-life and mathematical problems using numerical and algebraic expressions and equations.
	7.EE.3[23] 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. *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.*
	7.EE.4 Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. a. Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, 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. *For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?* b. Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, 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. *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*

[23] Problems in this module take on any form but percent, which is included in Module 4.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 7 Modules[13]
	the number of sales you need to make, and describe the solutions. **Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.**[24] **7.G.4** Know 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. **7.G.5** Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure. **7.G.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.
Module 4: **Percent and Proportional Relationships**[25] (25 days)	**Analyze proportional relationships and use them to solve real-world and mathematical problems.** **7.RP.1** Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. *For example, if a person walks 1/2 mile in each 1/4 hour, compute the unit rate as the complex fraction ½ / ¼ miles per hour, equivalently 2 miles per hour.* **7.RP.2** Recognize and represent proportional relationships between quantities. a. Decide 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. b. Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships. c. Represent proportional relationships by equations. *For example, if total cost t is proportional to the number n of items purchased at a constant price p, the relationship between the total cost and the number of items can be expressed as t = pn.*

[24] Emphasis of 7.G.5 and 7.G.6 in this module is on solving equations. The standards are returned to in Module 6.
[25] The emphasis in this module is on percent.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 7 Modules[13]
	d. Explain what a point *(x, y)* on the graph of a proportional relationship means in terms of the situation, with special attention to the points (0, 0) and (1, *r*) where *r* is the unit rate. **7.RP.3** Use proportional relationships to solve multistep ratio and percent problems. *Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.* **Solve real-life and mathematical problems using numerical and algebraic expressions and equations.**[26] **7.EE.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. *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.* **Draw, construct, and describe geometrical figures and describe the relationships between them.**[27] **7.G.1** Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.
Module 5: **Statistics and Probability** (25 days)	**Use random sampling to draw inferences about a population.** **7.SP.1** 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 valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.

[26] 7.EE.3 is introduced in Module 3. The balance of this cluster was taught in the first three modules.
[27] 7.G.1 is introduced in Module 1. The balance of this cluster is taught in Module 6.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 7 Modules[13]
	7.SP.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. *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.* **Draw informal comparative inferences about two populations.** **7.SP.3** Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability. *For example, the mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team, about twice the variability (mean absolute deviation) on either team; on a dot plot, the separation between the two distributions of heights is noticeable.* **7.SP.4** Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. *For example, decide whether the words in a chapter of a seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.* **Investigate chance processes and develop, use, and evaluate probability models.** **7.SP.5** Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around 1/2 indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event. **7.SP.6** Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. *For example, when rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times.*

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 7 Modules[13]
	7.SP.7 Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy. a. Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events. *For example, if a student is selected at random from a class, find the probability that Jane will be selected and the probability that a girl will be selected.* b. Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process. *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?* **7.SP.8** Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation. a. Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs. 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. c. Design and use a simulation to generate frequencies for compound events. *For example, use random digits as a simulation tool to approximate the answer to the question: If 40% of donors have type A blood, what is the probability that it will take at least 4 donors to find one with type A blood?*

Module 6: **Geometry** (35 days)	**Draw, construct, and describe geometrical figures and describe the relationships between them.**[28] **7.G.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. **7.G.3** Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids. **Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.**[29] **7.G.5** Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure. **7.G.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.

[28] The balance of this cluster is taught in Modules 1 and 4.
[29] 7.G.4 is taught in Module 3; 7.G.5 and 7.G.6 are introduced in Module 3.

Sequence of Grade 8 Modules Aligned with the Standards

Module 1: Integer Exponents and Scientific Notation
Module 2: The Concept of Congruence
Module 3: Similarity
Module 4: Linear Equations
Module 5: Examples of Functions from Geometry
Module 6: Linear Functions
Module 7: Introduction to Irrational Numbers Using Geometry

Summary of Year

Eighth grade mathematics is about (1) formulating and reasoning about expressions and equations, including modeling an association in bivariate data with a linear equation, and solving linear equations and systems of linear equations; (2) grasping the concept of a function and using functions to describe quantitative relationships; (3) analyzing two- and three-dimensional space and figures using distance, angle, similarity, and congruence, and understanding and applying the Pythagorean Theorem.

Key Areas of Focus for Grade 8: Linear algebra

CCLS Major Emphasis Clusters
Expressions and Equations • Work with radicals and integer exponents. • Understand the connections between proportional relationships, lines, and linear equations. • Analyze and solve linear equations and pairs of simultaneous linear equations. Functions • Define, evaluate, and compare functions. Geometry • Understand congruence and similarity using physical models, transparencies, or geometry software. • Understand and apply the Pythagorean Theorem.

Rationale for Module Sequence in Grade 8

This year begins with students extending the properties of exponents to integer exponents in Module 1. They use the number line model to support their understanding of the rational numbers and the number system. The number system is revisited at the end of the year (in Module 7) to develop the *real* number line through a detailed study of irrational numbers.

In Module 2, students study congruence by experimenting with rotations, reflections, and translations of geometrical figures. Their study of congruence culminates with an introduction to the Pythagorean Theorem in which the teacher guides students through the "square-within-a-square" proof of the theorem. Students practice the theorem in real-world applications and mathematical problems throughout the year. (In Module 7, students learn to prove the Pythagorean Theorem on their own and are assessed on that knowledge in that module.)

The experimental study of rotations, reflections, and translations in Module 2 prepares students for the more complex work of understanding the effects of dilations on geometrical figures in their study of similarity in Module 3. They use similar triangles to solve unknown angle, side length and area problems. Module 3 concludes with revisiting a proof of the Pythagorean Theorem from the perspective of similar triangles.

In Module 4, students use similar triangles learned in Module 3 to explain why the slope of a line is well-defined. Students learn the connection between proportional relationships, lines, and linear equations as they develop ways to represent a line by different equations ($y = mx + b$, $y - y_1 = m(x - x_1)$, etc.). They analyze and solve linear equations and pairs of simultaneous linear equations. The equation of a line provides a natural transition into the idea of a function explored in the next two modules.

Students are introduced to functions in the context of linear equations and area/volume formulas in Module 5. They define, evaluate, and compare functions using equations of lines as a source of linear functions and area and volume formulas as a source of non-linear functions.

In Module 6, students return to linear functions in the context of statistics and probability as bivariate data provides support in the use of linear functions.

By Module 7 students have been using the Pythagorean Theorem for several months. They are sufficiently prepared to learn and explain a proof of the theorem on their own. The Pythagorean Theorem is also used to motivate a discussion of irrational square roots (irrational cube roots are introduced via volume of a sphere). Thus, as the year began with looking at the number system, so it concludes with students understanding irrational numbers and ways to represent them (radicals, non-repeating decimal expansions) on the real number line.

Alignment Chart

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 8 Modules[30]
Module 1: **Integer Exponents and Scientific Notation** (20 days)	**Work with radicals and integer exponents.**[31] **8.EE.1** Know and apply the properties of integer exponents to generate equivalent numerical expressions. *For example,* $3^2 \times 3^{-5} = 3^{-3} = 1/3^3 = 1/27$. **8.EE.3** Use numbers expressed in the form of a single digit times an integer power of 10 to estimate very large or very small quantities, and to express how many times as much one is than the other. *For example, estimate the population of the United States as* 3×10^8 *and the population of the world as* 7×10^9*, and determine that the world population is more than 20 times larger.* **8.EE.4** Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology.
Module 2: **The Concept of Congruence** (25 days)	**Understand congruence and similarity using physical models, transparencies, or geometry software.**[32] **8.G.1** Verify experimentally the properties of rotations, reflections, and translations: a. Lines are taken to lines, and line segments to line segments of the same length. b. Angles are taken to angles of the same measure. c. Parallel lines are taken to parallel lines. **8.G.2** Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them.

[30] When a cluster is referred to in this chart without a footnote, the cluster is taught in its entirety.
[31] 8.EE.2 is covered in Module 7.
[32] 8.G.3, 8.G.4, and the balance of 8.G.5 are taught in Module 3.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 8 Modules[30]
	8.G.5[33] Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles. *For example, arrange three copies of the same triangle so that the sum of the three angles appears to form a line, and give an argument in terms of transversals why this is so.* **Understand and apply the Pythagorean Theorem.**[34] **8.G.6**[35] Explain a proof of the Pythagorean Theorem and its converse. **8.G.7**[36] Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.
Module 3: **Similarity** (25 days)	**Understand congruence and similarity using physical models, transparencies, or geometry software.**[37] **8.G.3** Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates. **8.G.4** Understand 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. **8.G.5** Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles. *For example, arrange three copies of the same triangle so that the sum of the three angles appears to form a line, and give an argument in terms of transversals why this is so.*

[33] Congruence is addressed in this Module. The balance of this standard (similarity) is taught in Module 3.
[34] 8.G.6 and 8.G.7 are also taught in Module 3. The balance of 8.G.6 and 8.G.7 are covered in Module 7, along with standard 8.G.8.
[35] Pythagorean is proved in this module guided by teacher (square within a square proof). Students are not responsible for explaining a proof until Module 7.
[36] This standard is started in this module and practiced during the year. No solutions that involve irrational numbers are introduced until Module 7.
[37] The balance of this cluster is taught in Module 1.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 8 Modules[30]
	Understand and apply the Pythagorean Theorem.[38] **8.G.6**[39] Explain a proof of the Pythagorean Theorem and its converse. **8.G.7**[40] Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.
Module 4: **Linear Equations** (40 days)	**Understand the connections between proportional relationships, lines, and linear equations.** **8.EE.5** Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. *For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.* **8.EE.6** Use similar triangles to explain why the slope m is the same between any two distinct points on a non-vertical line in the coordinate plane; derive the equation $y = mx$ for a line through the origin and the equation $y = mx + b$ for a line intercepting the vertical axis at b. **Analyze and solve linear equations and pairs of simultaneous linear equations.** **8.EE.7** Solve linear equations in one variable. 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). b. Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.

[38] 8.G.6 and 8.G.7 are also taught in Module 2. The balance of standards 8.G.6 and 8.G.7 are covered in Module 7, along with standard 8.G.8.
[39] Pythagorean is proved in this module guided by teacher (proof using similar triangles). Students are not responsible for explaining a proof until Module 7.
[40] This standard is started in this module and practiced during the year. No solutions that involve irrational numbers are introduced until Module 7.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 8 Modules[30]
	8.EE.8 Analyze and solve pairs of simultaneous linear equations. a. Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously. b. Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. *For example, $3x + 2y = 5$ and $3x + 2y = 6$ have no solution because $3x + 2y$ cannot simultaneously be 5 and 6.* c. Solve real-world and mathematical problems leading to two linear equations in two variables. *For example, given coordinates for two pairs of points, determine whether the line through the first pair of points intersects the line through the second pair.*
Module 5: **Examples of Functions from Geometry** (15 days)	**Define, evaluate, and compare functions.**[41] **8.F.1** Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.[42] **8.F.2** Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). *For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change.* **8.F.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. *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.*

[41] Linear and non-linear functions are compared in this module using linear equations and area/volume formulas as examples.
[42] Function notation is not required in Grade 8.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 8 Modules[30]
	Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres. **8.G.9**[43] Know the formulas for the volumes of cones, cylinders, and spheres and use them to solve real-world and mathematical problems.
Module 6: **Linear Functions** (20 days)	**Use functions to model relationships between quantities.** **8.F.4** Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two *(x, y)* values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values. **8.F.5** Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally. **Investigate patterns of association in bivariate data.**[44] **8.SP.1** Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association. **8.SP.2** Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to the line. **8.SP.3** Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept. *For example, in a linear model for a biology experiment, interpret a slope of 1.5 cm/hr as meaning that an additional hour of sunlight each day is associated with an additional 1.5 cm in mature plant height.*

[43] Solutions that introduce irrational numbers are not introduced until Module 7.
[44] 8.SP standards are used as applications to the work done with 8.F standards.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 8 Modules[30]
	8.SP.4 Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table. Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects. Use relative frequencies calculated for rows or columns to describe possible association between the two variables. *For example, collect data from students in your class on whether or not they have a curfew on school nights and whether or not they have assigned chores at home. Is there evidence that those who have a curfew also tend to have chores?*
Module 7: **Introduction to Irrational Numbers Using Geometry** (35 days)	**Know that there are numbers that are not rational, and approximate them by rational numbers.** **8.NS.1** Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually, and convert a decimal expansion which repeats eventually into a rational number. **8.NS.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.* **Work with radicals and integer exponents.**[45] **8.EE.2** Use square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that $\sqrt{2}$ is irrational. **Understand and apply the Pythagorean Theorem.** **8.G.6** Explain a proof of the Pythagorean Theorem and its converse. **8.G.7** Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.

[45] The balance of this cluster is taught in Module 1.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Grade 8 Modules[30]
	8.G.8 Apply the Pythagorean Theorem to find the distance between two points in a coordinate system. **Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.** **8.G.9** Know the formulas for the volumes of cones, cylinders, and spheres and use them to solve real-world and mathematical problems.[46]

[46] Solutions that introduce irrational numbers are allowed in this module.

Carmen Middle School Advisory Framework
Character, Coaching, Community

Big Story: Our Middle School environment is built upon strong relationships developed through the foundation of Respect. Responsibility. and Trust. Through the Advisory Framework, we build our reality to mirror our vision of Earn. Celebrate. Grow. By anchoring our Advisory Program in the following three areas, we ensure a safe, welcoming, and aspirational learning environment:

Character
Coaching
Community

Through anchoring our Advisory Framework in the 3 C's, we ensure that we are building character traits needed for the 21st century, as well as build the habits of a scholar needed for our 8th graders to be high school ready. We also make certain to provide the individual coaching that each student thrives upon to do his or her best. Finally, we build our community inside of our Carmen walls, and explore outside of the walls in order to build stronger ties to our community. The Advisory Framework provides a regular, supportive environment where every student is supported by a staff member who has the authority to advocate for each of their Advisees. Through targeted activities, such as Morning Circle and Advisory Team Time, we ensure that our Earn. Celebrate. Grow. vision comes to fruition in a safe, nurturing environment that is personalized, unique, and focused on our students' needs.

Structure: A core group of students engaged in the majority of these activities within this framework is called an "Advisory". An Advisory is composed of between 10-15 students in the same grade and of the same gender who are assigned to an advisor in August. Advisories will be chosen at random through a lottery process in order to foster an environment that is inclusive and engaging.

Purpose: Each advisory will work and grow together in the atmosphere where we practice building Community Trust and practicing foundational character traits. Students should feel safe and supported to discuss and work on specific academic and personal matters in a supportive and reflective setting. Advising involves group specific

work, including structured and informal group discussions, as well as individual conferences between advisor and each advisee.

Role and Responsibilities: Advisors take an active role in learning about each student as an individual and help support the needs of the whole child. Advisors keep a pulse on each student's academic standing, attendance, and behavior. Advisors serve as the primary point of contact at school for the parents of their assigned students. As advocates, they intervene in situations where a student's pattern of behavior is interfering with academic performance. Intervention may include providing additional support, developing strategies to address the concern, and / or seeking out additional services and resources at Carmen or outside of Carmen when necessary. Advisors strive to meet or exceed all advisory program goals and metrics. Advisors are supported by the Principals, Social Worker, Advisory Lead, and Grade Level Team Facilitators throughout the year, and will be provided with coaching and resources for Advisory Framework activities.

Principal is responsible for promoting school culture through advisory framework resources, and through tracking progress towards goals and metrics. Specifically, the Principal will provide reporting to track student behavior, calls home, community service, Naviance assessments and lessons, and other reports by advisor to advisors. In addition, the Co-Principal will conduct student advisory surveys, the Constructive Environment Survey, and help to set-up advisory gradebooks, create advisory charts, coordinate activities and events with Advisory Lead and GLTF's.

Advisory Lead is responsible for modeling and building Morning Circle and Closing Circle. Advisory Lead and Co-Principal will co-plan Advisory Team Time and provide Advisors with plans, resources, coaching, and feedback for that time. Advisory Lead, along with Co-Principal and Social Worker, will collaborate to plan targeted Professional Development in the areas of need. Advisory Lead will work to build congruent structures, such as the Community Trust Committee, Peer Mediation, and support through the Student Support Team (RtI).

Social Worker is responsible for supporting the planning of Advisory experiences through infusion of SEL resources and curriculum, as well as modeling and supporting Circle Practice

Grade Level Team Facilitators are responsible for planning the grade-level advisory calendar, coordinating resources for advisors, helping with professional development for advisors, planning, leading and following up on regular advisory meetings, and reporting advisory issues, ideas, and outcomes at Leadership Team Meetings. GLTF's will be a part of the Student Support Team, and will bring help build our Advisory Framework through coaching and modeling for staff.

Prioritized Time for Advisories of the 2015-2016 Advisory Framework include the following

- Morning Circle & Closing Circle (daily)
- Advisory Team Time (once per week for 1 hour)
- DEAR (once per week for 1 hour)

Aligned Components of the 2015-2016 Advisory Framework include

- Paycheck System
- All School Meetings
- Student Council Meetings *(with Advisory Representatives)*
- RRT Rubric
- Grade Level Lock In
- Value-Infused Academics
- Shared Ethical and Performance Values

Retreats

Overarching Goals of Advisory Framework

Character

1) Build Respect, Responsibility, and Trust in our Carmen Community (5b)
2) Establish knowledge of healthy habits and modes of thought. Provide practice & evaluation (5b)
3) Develop, strengthen, & sustain connections between students & advisor with intentional community building (5b)
4) Develop communication skills that promote healthy communication and peaceful conflict resolution (5b)

Coaching

5) Encourage and promote self-directed learning through coaching and goal-setting (5a)
6) Develop growth mindset through setting rigorous reading goals and tracking those goals (5a)
7) Develop students' self-awareness and teach ways to value self and boost self-esteem (5a)
8) Develop knowledge of strengths & interests, and develop short & long term education & career (5a)

Community

9) Identify and implement actions and projects that benefit the school and wider community
10) Build communication between school and family

Advisory End Goals at Carmen Middle School

5a) Developing Self-Directed Learners with a Growth Mindset

End Goals: Middle School

1. As a result of problem solving, 1-1 meetings, and individual plans, less than 10% of students are failing 2 or more classes each quarter and the average advisory GPA is 2.5 or above.
2. 90% of advisees are achieving significant reading growth (i.e.1.5 years) by the end of the year as per monthly progress monitoring
3. 90% of advisees reach their monthly Independent Reading Book Goal.

5b) School Culture and Relationship Building

End Goals: Middle School

1. 80% of students are achieving an average of $50.00 on their paychecks weekly (starting with $25.00 each week and doubling it by Thursday afternoon)
2. 80% of students are receiving 11/15 points or higher on their Respect, Responsibility, and Trust Rubric quarterly.

5c) Family and School Interaction

End Goals: Middle School

1. 100% of attendance at Parent Advisor Conferences
2. Advisory meets school wide attendance goals (97% overall).

5d) Student Involvement in the School and Community

End Goals: Middle School

1. High levels of student participation in community service with 100% of advisees meeting the 10 hour requirement by June 1st.
2. 100% of Advisees return signed Monthly Newsletter slip.

Advisor Dashboard

5b School Culture & Build Relat.		5a Self Directed Learners			5c Family / School Interaction		5d Student Involvement in Community	
RRT Rubric Score	Weekly Paycheck Average	GPA	AR/Lexile	On Track for Promotion?	PAC Fall	PAC Spring	Community Service Hours	Monthly Newsletter

Grade Level Themes & Performance Tasks

Grade Level	Theme	Key Area of Need	Character Trait Focus *Recommended*	Performance Tasks or Outputs
6th Grade: The Eagles Hatch in the Nest	The 6th grade program drives to help students understand The Carmen Way, Carmen expectations, and build solid foundational habits of scholar. The theme is learning and growth; students need to believe in themselves as learners and build confidence to explore, and self-control to help maximize their learning time.	Organization Impulse control Building confidence	Self-Control Determination Integrity	*TBD w/ GLTFs and GL Teams*
7th Grade: The Eagles Nurture Themselves & Their Team	The 7th grade program is designed to help students understand their personalized learning styles and preferences on a deeper level. The focus on TEAM is a theme throughout the activities.	Communication Celebrating diversity	Teamwork Social Intelligence Gratitude	*TBD w/ GLTFs and GL Teams*
8th Grade: The Eagles Lead the Way	The 8th grade program empowers students to set a good example for our younger eagles, and to build the structures they see fit that will ensure our Earn. Celebrate. Grow. vision comes to fruition.	Empowering Prepare for HS HS Visits Mentoring 6th & 7th graders	Curiosity Zest *Leadership	*TBD w/ GLTFs and GL Teams*

Weekly Advisory Themes & Targeted Activities: Quarter 1			
	CCC	Theme	Guiding Question
Foundation	Character	Getting To Know You	Who are you? Who am I? Who are we?
Week 1	Character	Respect. Responsibility. Trust. Our Agreements	How will we operate as a team?
Week 2	Character	Respect. Responsibility. Trust. The Rubric	How can we earn our Eagle pin?
Week 3	Coaching	Advisory Goal Setting / SMART Goals towards RRT	How can I set a meaningful goal?
Week 4	Coaching	7 Habits Study	How can we improve our study habits?
Week 5	Coaching	7 Habits Activity	How can we apply and practice our habits?
Week 6	Coaching	Mid-Quarter Academic Check In	Where am I at? Where do I need to be?
Week 7	Community	Multi-Grade Advisory Activity	How are we building community with other grade levels?

Week 8	Community	Community Service Activity	What is the purpose of community service?
Week 8	Community	Community Service Activity	How did this service opportunity impact my perspective about the world?
Week 9	Coaching	Advisory Goal Setting / SMART Goals Reflection	How am I different? How am I the same?
Week 10	Character	End of Quarter Reflection & Celebration	What did we earn? What can we celebrate? How did we grow?

Advisory Team Time Agenda Outline: **Theme:** **Date:**	
10-15	*J-Factor:* Opening Activity/Team Building Activities Examples • Catchphrase • Hangman • 20 Questions • Scattergories • Tribes Energizers
10	*Center:* Refocusing Our Minds Examples • Journaling • Deep Breathing / Yoga • Continuation of Circle
5	*Invest:* What is the goal of Advisory Team Time today? What's our Guiding Question?
35	*Activate:* Targeted Advisory Activity
10-15	*Reflect:* Closing Circle

Baseline Advisory Lessons

- 10 Baseline Advisory Lessons and Activities will be provided at the beginning of each quarter.
- Advisors may choose to use Baseline Advisory Lessons or infuse their own activities to reach the goals
- The 5 Anchors (J-Factor, Center, Invest, Activate, Reflect) must be present in each lesson.
- Advisors can delegate how much time is spent on each of the 5 Anchors

Carmen Middle School of Science & Technology
NORTHWEST CAMPUS

GRADING AND PROMOTION POLICY

At Carmen Middle School, we believe in focusing on student-centered learning and developing foundational habits that will set our students up for success in life. In order to support each student's individual needs, we need a holistic measure of what success looks like for our scholars. We focus on growth and achievement and set a high bar for students to work towards. Because we are all learners, it's important that each and every one of us at Carmen believes deeply in the growth mindset and models that for our students.

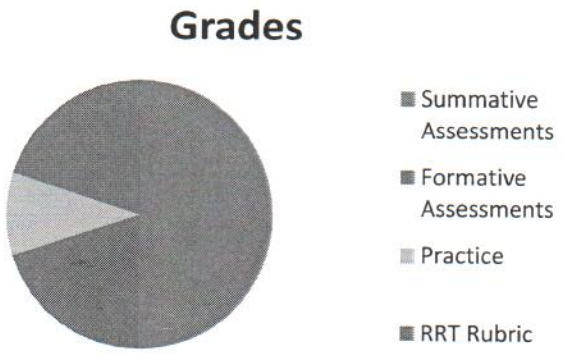
Our goal is to have all Carmen students demonstrate dramatic growth every academic year. For students that enter Carmen with learning deficiencies and are therefore below their grade level, our goal is to close that gap. Because students in the same grade are at various points in their learning--some below grade level, some at grade level, and some beyond grade level--summative assessments measure content and skills AT grade level, as defined by national academic standards. Lower scores on summative assessments--while they may be disappointing--provide an accurate measure of how far a student is away from demonstrating proficiency AT his/her grade level. For this reason, grade-level goals are adjusted to account for the gap that many students come to us with at Carmen Middle School. For each year that a student is enrolled at Carmen, we expect that he/she will demonstrate increasing proficiency on grade-level assessments.

With this holistic view in mind and with a rigorous curriculum set, we will want to clarify our grading policy, promotion policy, and the academic supports that we provide for our scholars.

Grading Policy

What is graded?

Carmen Middle School grade reports provide an overview of a student's growth, achievement, knowledge, and content in subject areas. Grades provide a picture of proficiency in core grade-level academic and behavioral standards. The overall grade in a subject area is comprised in the following way:



Carmen Middle School of Science & Technology
NORTHWEST CAMPUS

What grading scale do we use?

A	B	C	D
97-100 = A+ 93-96 = A 90-92 = A-	87-89 = B+ 83-86 = B 80-82 = B-	77-79 = C+ 73-76 = C 70-72 = C-	67-69 = D+ 63-66 = D 60-62 = D-

**A passing grade at Carmen Middle School is a C (*73%) or higher.*

Promotion Policy

At Carmen Middle School, we promote students who are ready to complete the level of rigor required by them in the next grade. Students show their preparedness for the next grade level through their overall grades, MAP and STAR growth, and benchmark assessments.

The education team will meet in December to identify Students of Concern (SOC). Students of Concern are students who are at risk of repeating their current grade as evidenced by their current grades and academic growth. Individual SOC meetings will be scheduled between the education team and the family in order to review the student's progress and create goals and support systems for academic improvement. This team will meet again after Q3 to review progress. At that time, a student may either continue or be taken off the SOC list.

The Principal will make the final decision on promotion with input from teachers and parents.

Growth + Grades = Promotion

Growth

This is the overall reading growth and academic growth that a student has made during the year. Our goal is 2+ years of reading growth in one year for all students. Specifically, we look at the growth of students who are significantly behind (2 or more years behind) or slightly behind (up to 2 years behind) when discussing promotion. If a student is 2 or more years behind grade level in reading and/or math (as determined by MAP and STAR Test Scores) in the spring, that student may benefit from repeating the year again. Retention will be considered if the growth goals have *not* been made *and/or* a student is still significantly behind grade level in reading and math.

Grades

Our grades are a holistic view of both academic and behavioral achievement. Summative assessments from core classes (ELA, Math, Social Studies, Science) are the ultimate factor in determining if a classes' standards have been mastered. Because our students come to Carmen on varied levels, we want to establish a minimum (not a ceiling) for summative scores, as follows:

6th Grade: 60%
7th Grade: 65%
8th Grade: 70%

Academic Supports

Our schedule drives towards providing time for deep exploration of content, as well as differentiated support for each student's needs. Highlights include the following:

- Small Class Size: Our classes max at 24 students/class.
- Advisory: All students begin and end their day in an environment that sets them up for success.
- Longer Core Classes: Our core content classes (Math, Social Studies, Science, ELA) are 85 minutes to allow for more engagement and practice with skills.
- Differentiated Instruction: Students receive differentiated support through a variety of supports, including Think Through Math for math enrichment, Compass Learning for reading support, and other small group and computer-based programs.
- Small Reading Groups: Students receive differentiated support for their reading four times per week. In these sessions, students meet with one teacher and a group of students to practice reading strategies and skills that are just right for their own individual needs and level.

After-School Academic Support

Depending on the need, teachers may decide to offer support after-school. This is an opportunity for students to get additional support outside of the academic day. Because teachers offer this time on their own, they have the right deny tutoring if student behavior is not productive.

Summer School Program

Our Summer School Program is an optional program where students will receive enrichment in reading, math, and other areas of interest. Our Summer School Program is for enrichment only and will not serve as an opportunity for students who are retained to earn promotion. Instead, we want to cultivate an environment where students can learn in new and unique ways. Summer School Program will run for two weeks in the summer.

Transfer Students

The Head of Schools or designee has the authority to determine the appropriate grade level designation of a student who transfers into Carmen Middle School. A student whose school records do not show evidence of the student having met the academic and behavioral standards required of Carmen Middle School students at the same grade level might not be promoted to the next grade level upon enrollment in Carmen Middle School.

6th Grade
End of Quarter
(Science)
Assessment

EOQ 2.1 Name: _____ CC: _____ Date: _____

A student measured the mass of a beaker. She put some water into the beaker and, after carefully measuring its mass again, placed it in a warm place for 3 days. After 3 days, she again measured the mass of the beaker and water. The results she obtained are shown in this table:

Mass of the Beaker	180.2 g
Mass of the Beaker + Water	230.2 g
Mass of the Beaker + Water After 3 Days	212.7 g

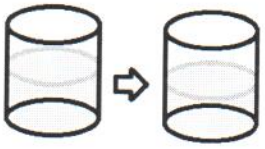
Use the information above to answer questions 1-4

1) What was the <u>volume</u> of the water she placed in the beaker?

a) 410.4 g
b) 230.2 mL
c) 50.0 mL
d) 410.4 mL

2) What was the change in the <u>mass</u> of the water over the 3 day period?

a) -17.5 g
b) -32.5 g
c) -50.0 g
d) +50.0 g



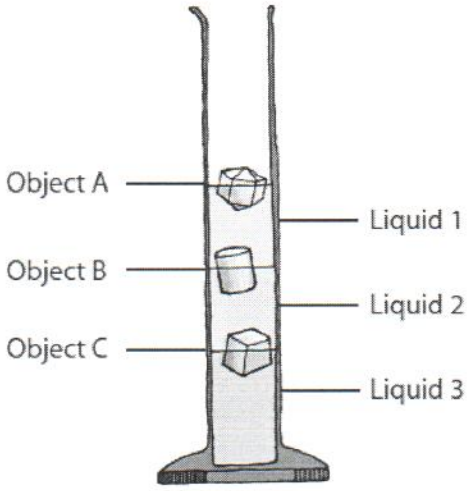
3) Which of the following statements best explains the change in mass?

e) The water absorbed air
f) Some of the water evaporated into the air
g) Some of the water disappeared
h) There was no change in mass

4) If the students used a bottle with a closed cap, how would the mass of the water at the end of the three days be different?

a) The mass would show the same change as in the experiment described
b) The mass would increase
c) The mass would decrease
d) The mass would not change

The graduated cylinder shown below contains three liquids labeled 1, 2, and 3. The objects (A, B, and C) in the cylinder are made from three different solids. Use the information from the picture to answer questions 5-6.



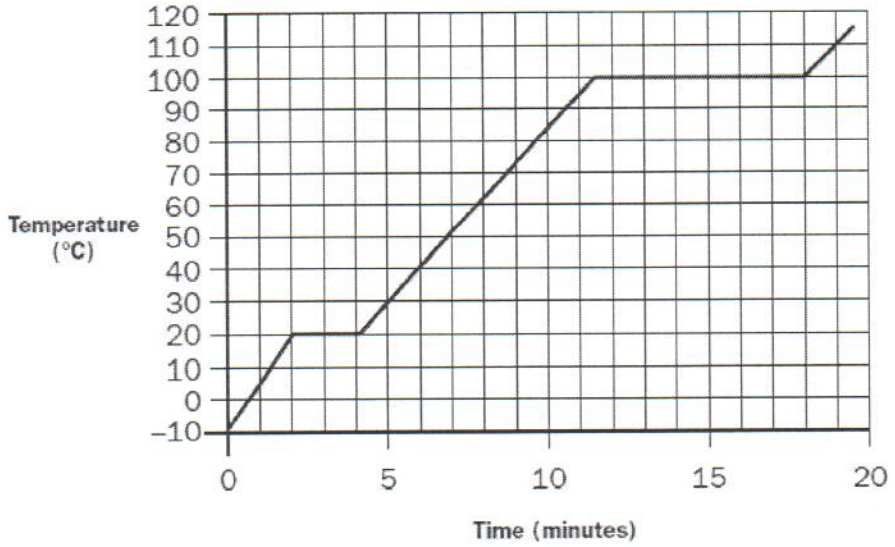
5) **Which of the following statements is correct?**
   a) Object B is heavier than Object C
   b) Object B is less dense than Liquid 1
   c) Object B is less dense than Liquid 3
   d) Objects B and C have the same density

6) **Of the following liquids and objects in the graduated cylinder, which has the <u>greatest density</u>?**
   a) Liquid 1
   b) Object A
   c) Object C
   d) Liquid 3

7) **Jordan put 25g of ice into a bottle and left it on the counter. When he came back 3 hours later, the ice had melted into water. What happened to the mass?**
   a) It became larger
   b) It became smaller
   c) It remained the same
   d) The mass cannot be determined

8) **Which of the following statements best describes what is happening when water boils?**
   a) The water is evaporating
   b) The water is disappearing
   c) The water is dissolving
   d) The water is drying

Look at the graph below. It shows the temperature of a solid that was heated with a candle. Use the information in the graph to answer questions 9-11.



9) How long was the substance heated before it reached 50℃?

a) 4 minutes
b) 5.75 minutes
c) 7 minutes
d) 11 minutes, 30 seconds

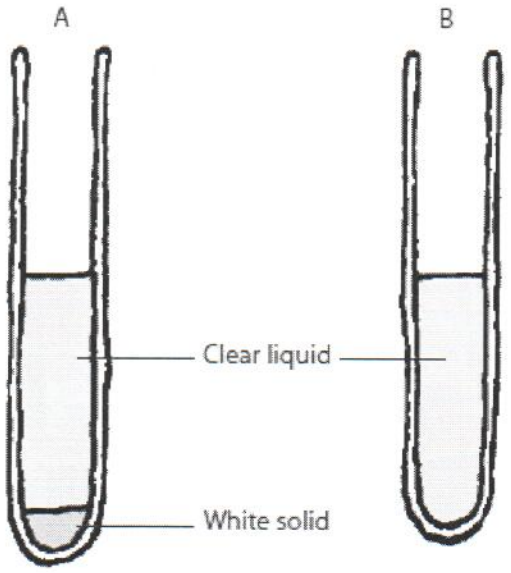
10) What is the melting point of this substance?

a) 100℃
b) 20℃
c) 0℃
d) -10℃

11) How long from the start of the experiment was the substance heated before all of it turned into a gas?

a) 20 minutes
b) 18 minutes
c) 4 minutes
d) The graph does not provide this information

Ms. Rozman put 2 grams of Solid A into Test tube A and 2 grams of Solid B in Test tube B. She then added 8 mL of a clear, colorless liquid to both test tubes and shook the test tubes until no white solid could be seen in either one. She added 2 *more* grams of Solid A into Test tube A and 2 *more* grams of Solid B into Test tube B. After shaking both of the tubes, she left them alone for a day. The next day, they looked like this.



12) Which of the following statements about the test tubes is correct?

a) Solids A and B are both insoluble
b) Solid A is more soluble than solid B
c) Solid B is more soluble than solid A
d) Only 4 g of solid B will dissolve in 8 mL of the liquid

13) What is the liquid above solid A?

a) Water
b) An unsaturated solution
c) A mixture
d) A saturated solution

Exactly 3 g of orange crystals were mixed with 20 mL of water to form a solution. Use this information to answer questions 12-14.

14) In the solution, the <u>orange crystals</u> were which of the following?

a) solute
b) solvent
c) transparent
d) saturate

15) What was the mass of the <u>orange solution</u> formed?

a) 17 g
b) 20 g
c) 23 g
d) The mass cannot be calculated

16) In the solution, the <u>water</u> was which of the following?

a) solute
b) solvent
c) transparent
d) saturate

17) Claim, Evidence, Reasoning: When we added heat to powdered sugar, was there a physical change or a chemical change?

C: _____

_____

E: _____

_____

R: _____

_____

EOQ 2.2 Name: _____ CC: _____ Date: _____

Unit 2 Summative Assessment

Performance Task- Determining the Density of a mystery object

Using the lab supplies provided, determine the density of your mystery object

18) Explain how you will determine the mass of your object

_____

_____

_____

19) Explain how you will determine the volume of your object

_____

_____

_____

20) What is the object's mass? _____

21) What is the volume of the object? _____

22) Calculate the object's density (remember to add the correct unit).

_____

23) Which of the following units provides the best measure of the <u>amount of matter</u> in a rectangular plastic block? (Remember which vocab word means the amount of matter in an object!)

a) Milliliters (mL)
b) Cubic centimeters (cm^3)
c) Grams (g)
d) Grams per cubic centimeter (g/cm^3)

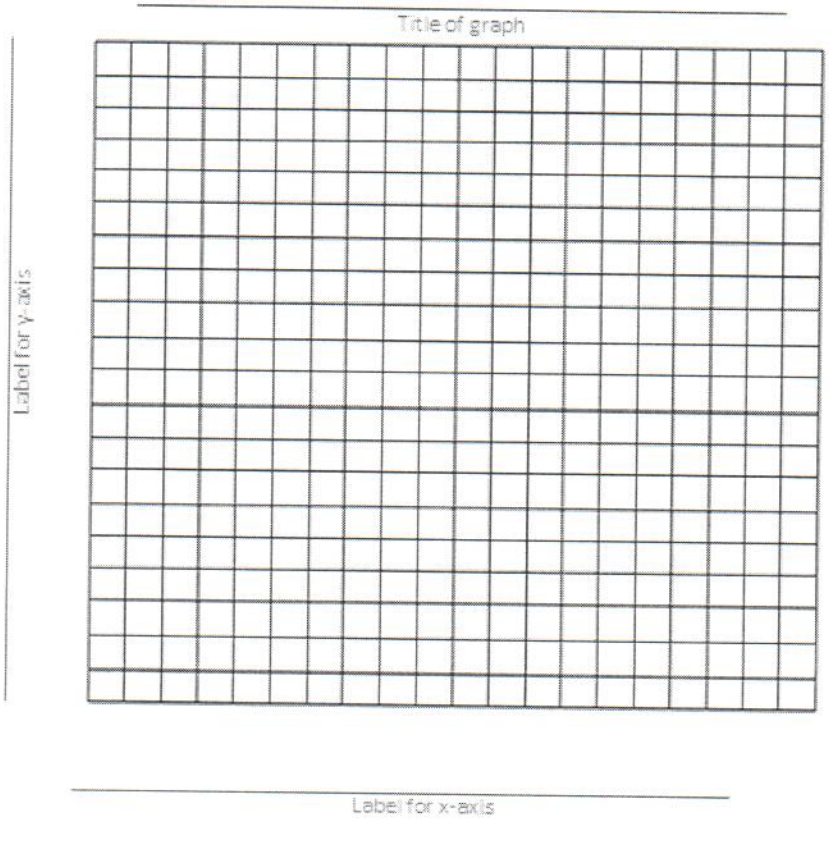
24) Joseph finds a block and learns that its density is 0.8 g/mL. Will this block float or sink in water?

a) Float
b) Sink

25)

Time (Minutes)	Temp (°C)
0 minutes	0 °C
2 minutes	20 °C
4 minutes	20 °C
7 minutes	50 °C
8 minutes	50 °C
12 minutes	70 °C

Add each temperature and time as a point on the graph.



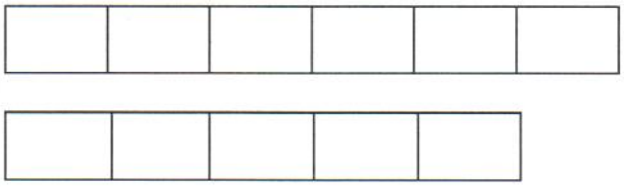
6th Grade
Sample End of Quarter
(Math)
Assessment

NAME:_____

6th Grade Quarter 2 Math Test

1.	There are 5 girls for every 3 boys in 6th grade at Carmen. What is the ratio of boys to total students at Carmen? A. 3 to 5 B. 3 to 8 C. 5 to 3 D. 3 to 6	4.	There are 38 cars parked in the parking structure. The parking structure is not full to capacity. There are 13 parking spaces that are empty. What is the ratio of available parking spaces to parked cars? A. 13:38 B. 51:38 C. 38:51 D. 38:13
2.	What is the ratio of red lightsabers to blue lightsabers?  5:3 6:4 3:6 2:3	5.	A grocery store sign indicates that bananas are 6 for $1.50, and a sign by the oranges indicates that they are 5 for $3.00. Find the total cost of buying 2 bananas and 2 oranges. A. $0.85 B. $1.70 C. $2.25 D. $4.50
3.	For every lawn Joe mows, he gets $5. What is the ratio of Joe's money to lawns mowed? A. 1:5 B. 5:1 C. 3:10 D. 1:10	6.	The recipe has a ratio of 3 cups of flour to 4 cups of sugar. How much flour do you need if you are using 16 cups of sugar? A. 3 cups B. 12 cups C. 4 cups D. 8 cups

7. The tape diagram shows the ratio of cars to trucks on the highway. If there are 7 more cars than trucks, how many total vehicles are on the highway?



A. 7 vehicles
B. 42 vehicles
C. 35 vehicles
D. 77 vehicles

8. On a bicycle someone can travel 25 miles in 5 hours. How far can he travel in 1 hour?

A. 1 mile

B. 5 miles

C. 10 miles

D. 15 miles

9. You mix 3 pints of yellow paint for every 4 pints of blue paint to make green paint. You use 12 pints of blue paint. How much green paint do you make?

A. 9 pints

B. 20 pints

C. 21 pints

D. 12 pints

10. Find the missing values in the table

Dogs	4	(first)	24
Cats	6	12	(second)

a. 8, 10

b. 36, 8

c. 8, 36

d. 16, 24

11. A piece of space rock travels 5 miles in 8 seconds. How far does it travel per second?

A. 1 mile

B. 62.5 miles

C. 0.625 miles

D. 6.25 miles

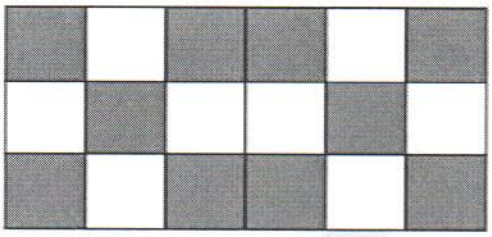
12. A chef buys 6 pounds of chicken legs for $51. How much will the chef pay for 9 more pounds of chicken legs?

A. $51

B. $70

C. $76.50

D. $62.50

13.	Write 35% as a fraction in the simplest form. A. 35/100 B. 7/20 C. 7/100 D. 20/7	15.	Jeremy has two 7-foot-long boards. He needs to cut pieces that are 15 inches long from the boards. What is the greatest number of 15-inch pieces he can cut from the two boards? A. 15 B. 10 C. 11 D. 12
14.	Write 174% as a mixed number in the simplest form. A. 174 B. 87/50 C. 1 37/70 D. 174/100	16.	Convert 36 quarts to gallons. A. 18 gallons B. 36 gallons C. 4 gallons D. 9 gallons.
17.	The new floor in the school cafeteria is going to be constructed of square tiles that are either gray or white and in the pattern that appears below:  Part A: What is the ratio of gray tiles to white tiles? Answer: _____ Part B: What is the ratio of white tiles to the total number of tiles in the pattern? Answer: _____	18.	A chocolate store sells boxes of chocolates. Each box sells for $10.75 and holds 43 pieces of chocolates. Select True or False for each of the following statements 1- For $1 you can buy 4 chocolates. choose... (choose... / True / False) 2- Each 1 chocolate costs 50¢ choose... (choose... / True / False) 3- For $2 you can buy 8 chocolates choose... (choose... / True / False) 4- Five chocolates cost 150¢ choose... (choose... / True / False) show your work here

19.	Kyla found a dress she liked for $52.25. She earns $5.50 an hour babysitting. How many hours must she babysit to afford the dress? Use a double number line to support your answer.	20.	A clothing store offers a 30% discount on all items in the store. Part A: If the original price of a sweater is $40, how much will it cost after the discount? Show your work. Answer: _____

6th grade
End of Quarter
Sample Assessment
(Social Studies)

End of Quarter 2 Assessment

Name: _____
Date:_____

Tomb Raiders

American archaeologists (1) recently did something that would make their mummies proud: They discovered a hidden Egyptian tomb! Otto J. Schaden and his team found the burial chamber (2) underground in Egypt's Valley of the Kings. It holds five mummies in sarcophagi (sar-KAH-fuh-gigh), or coffins. The tomb also contains 20 jars in which Egyptians stored food and drink for the afterlife. This marks the first time an intact tomb has been discovered in the valley in 84 years.

The last tomb found there was that of Tutankhamen, the boy king. Tut's tomb is just feet from the newly found chamber. "It was just so amazing to find an intact tomb here after all the work that's been done before," Edwin Brock, one of the project leaders, told reporters. Archaeologists suspect that the tomb is about 3,000 years old.

The scientists will study the sarcophagi to determine the mummies' identities and social status. One of the sarcophagi has the features of a woman with black hair, dark-lined eyes, and a gold necklace. Schaden says the mummies may be members of a pharaoh's court, but some people have speculated that the tomb may hold the mummy of Nefertiti—one of Egypt's most beautiful and powerful queens.

Even if the tomb doesn't hold Nefertiti's remains, it's still the find of a lifetime, archaeologists say. "This cache…proves that the Valley of the Kings is not exhausted," Mansour Bouriak, an Egyptian official, told reporters. 1 archaeologist: scientist that studies past human life as shown by fossil relics and the monuments and tools left by ancient peoples 2 burial chamber: an enclosed space that holds one or more bodies

READ ALL QUESTIONS CAREFULLY. TAKE YOUR TIME. REMEMBER WE READ ARTICLES AT LEAST TWICE...

1. **GIST**
2. **WITH PURPOSE (underlining might help you read closer)**
3. **Double check understanding**

1.The main idea of this passage is:

a. The remains of Nefertiti were found.
b. Archaeologists recently found a hidden Egyptian tomb.
c. Sarcophagi were coffins that hold Egyptian mummies.
d. Egyptians store food and drink in coffins.

2. The main idea of the last paragraph is

a. Scientists are hypothesizing who might be in the tomb.
b. Nefertiti was the most beautiful of Egyptian women.
c. Social status can be determined by the way someone was buried.
d. Even though they do not know who is in the tomb, it is still an important discovery.

3. Egyptians stored food and drink in their tombs, because

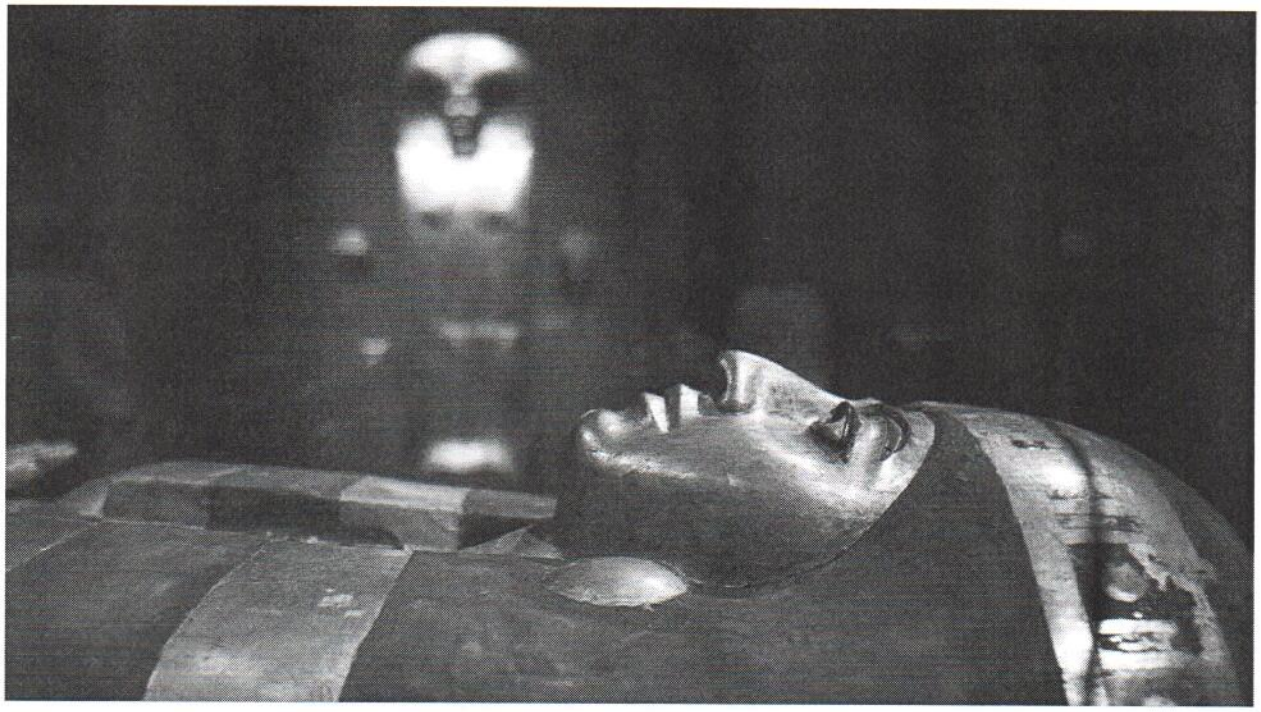
a. they wanted to feed their dead as they enter the afterlife.
b. they wanted to feed workers that were building the tomb.
c. they wanted to preserve the food for later use.
d. tombs were cold and acted as refrigeration for ancient Egyptians.

4. The author included the quote from Edwin Brock

a. to add additional facts about the findings.
b. to show the archaeologist's' perspective.
c. to encourage the reader to study archeology.
d. all of the above.

Burial Chamber for Unknown Pharaoh Found (790 L)

By Philadelphia Inquirer, adapted by Newsela staff



Archaeologists from the University of Pennsylvania have found something amazing: the tomb of a previously unknown Egyptian pharaoh. They believe that the pharaoh, or king, ruled more than 3,600 years ago.

Archaeologists study ancient peoples by looking at their bones and the tools they used. The ones who found the tomb say this is only the first discovery. They expect to uncover more than a dozen tombs. The archaeologists believe that all of them contain members of a forgotten dynasty, or line of rulers.

The tomb was found last week. It had been robbed, however, writing on the chamber walls clearly shows whose tomb it is. It belonged to a ruler named Woseribre Senebkay.

Digging For A Dynasty

The archaeologists already have begun digging at several nearby sites which all appear to be from the same dynasty. All are located where the ancient city of Abydos once stood.

"It looks like there's a whole royal necropolis of this lost dynasty," said Josef Wegner, who led the expedition. Necropolis is the term for an ancient cemetery. It literally means "city of the dead."

Archaeologists already knew that unknown pharaohs might someday be found because of of an ancient list of rulers called the Turin King List. There are names on it that were unfamiliar to archaeologists.

The name Senebkay seems to match one of the names on the list, said Wegner.

"They basically were forgotten to history," Wegner said. "In the later king lists, they don't appear. They just kind of vanish."

The tomb has been dated to 1650 B.C. It was raided by tomb robbers in ancient times, Wegner said.

Woseribre Senebkay probably stood about 5 feet 10 inches. He appears to have died in his 40s.

A 60-Ton Stone Chamber

The tomb contained parts of a funeral mask, a coffin and a cedar chest. The chest would have been used to hold the king's organs: his heart, his liver and so on. It was common to remove the organs of ancient Egyptians before they were buried.

The chest that held his organs seems to have been reused. It seems to have been taken from the nearby tomb of an earlier king, named Sobekhotep. Sobekhotep was already known to history.

The string of discoveries began last year when Wegner and others came across a 60-ton stone chamber. It was built to house a sarcophagus, which is a carved stone box that Egyptian coffins were placed in.

The sarcophagus chamber appeared to have been moved. Its original owner was identified as Sobekhotep. Wegner and the others are still trying to figure out the king for whom it was reused.

Woseribre Senebkay's tomb was discovered near the 60-ton chamber. The tombs of other members of his dynasty are thought to lie nearby.

Senebkay's tomb is painted with pictures of various goddesses, including Nut, Nephthys, Selket and Isis.

Senebkay ruled during the so-called Second Intermediate Period. At the time, several dynasties were fighting for power.

5. Which mummy are archaeologists still working to identify?
   a. The mummy in Senebkay's tomb
   b. The mummy found in Sobekhotep's tomb
   c. A mummy they think could be Sobekhotep
   d. The dozen other mummies found from the abydos dynasty

6. What was found that helped identify that the tomb belonged to Woseribre Senebkay?
   a. A funeral mask
   b. A cedar chest
   c. Hieroglyphs
   d. A coffin
7. Why does the author word this sentence the way he does?

" All, they believe, are the final resting places of members of a forgotten dynasty — that is, a forgotten family line of rulers"

   a. To present a theme and allow the reader to draw connections
   b. To include imagery and allow the reader to picture the scene
   c. To create mystery and keep the reader interested
   d. To state a fact by defining "dynasty"

8. Why does the author include this sentence in the article?

"The string of discoveries began last year, when Wegner and others found a 60-ton stone sarcophagus chamber."

   a. To provide details about a person's motivations
   b. To introduce an opposing perspective
   c. To compare several different discoveries
   d. To make note of an important event

9. Which sentence BEST describes the relationship between the two sentences?
   a. The second sentence contains imagery and the first one states a fact.
   b. The first sentence provides an explanation for a question the second one raises.
   c. The first sentence provides a detail and the second one states a fact to support it
   d. The second sentence provides an explanation for a question the first one might raise.

10. Read the following two sentences from the article :

It was built to house a sarcophagus, which is a carved stone box that Egyptian coffins were placed in.

The sarcophagus chamber appeared to have been moved.

What is the relationship between the two sentences?
   a. The first sentence sets the scene while the second sentence provides a fact
   b. The second sentence uses imagery to describe what is in the first sentence
   c. The second sentence provides a definition of a word used in the second sentence

DALLAS, Texas — Peek inside Jennifer Cass' second-grade classroom: you won't see kids sitting on desk chairs in neat rows.

Some gently bounce on stability balls, a type of bouncy exercise ball you can sit on. Others rock back and forth on plastic wobble chairs that move like spring animals on a playground. Some sit cross-legged on pillows around a low table. The rest lay on their stomachs on plush bath mats.

Second-grader Qualyon Perkins said his favorite seat is the "bouncy ball."

"It helps me because when I get wiggly, I don't have to act crazy. I can just bounce or wobble," he said.

Teachers Ditch Traditional Chairs In The Classroom

This classroom arrangement is called flexible seating. Cass is among several Hexter Elementary teachers who have converted their classrooms with hopes to improve students' focus and allow them to choose how they learn best.

The evidence isn't there yet, but the teachers say they see a difference.

"I have a lot of students who like to fidget or move while they work, and regular chairs don't allow them to do that," said Cass, who teaches at the Dallas ISD school. "Wobble chairs allow them to move around while they learn."

Cass said she ditched traditional chairs altogether after noticing most of her students last year didn't sit in them to do their work. Instead, she opted for bean bag chairs and the floor.

"Why do I have all these desks and chairs in here if no one is using them? They don't like them, so I got rid of them," she said. She said her students get to choose seating based on where they learn best.

New Seats Are Pricey

There are rules for the new seats, like both feet on the ground and no spinning.

It's not necessarily about which chair is most fun to sit on, Cass said. "It's where do you learn best."

The equipment isn't cheap. A KORE wobble chair, which comes in rainbow colors, sells for nearly $70 on Amazon. According to the company, the rocking motion can be calming and organizing for the brain. It can help kids pay attention.

Principal Jennifer Jackson said that many "flexible" seats were donated to teachers through online campaigns. More than 20 Dallas-area teachers are among roughly 3,000 requests from across the country on the site for flexible seating.

"I think we're going to see more of it," Jackson said of flexible seating.

Fidgeting Helps Some Kids Think

A 2015 study by researchers at the University of California, Davis MIND Institute found that fidgeting for children with attention-deficit/hyperactivity disorder may actually help them think.

"Parents and teachers shouldn't try to keep them still. Let them move while they are doing their work," Julie Schweitzer, director of the UC Davis ADHD Program and the study's senior author, said in a news release.

But as far as she knows, whether wobble chairs and other flexible seating helps hasn't been studied.

Schweitzer said the benefits and the costs to the child and the overall classroom environment should be tested.

Still, teachers say wobble chairs and bouncy balls can be helpful for students, especially those with ADHD tendencies.

It's Not For Everyone

While many students were excited about the new seats on the first day of school, not everyone likes to wobble or bounce. Ella Greenman, a second-grader in Cass' class, prefers a floor pillow to the wobble chairs and bouncy balls, saying it's easier for her to focus.

"The pillow is squishy. Sometimes it's hard to work and bounce," she said.

Caroline Harris, who teaches second-grade reading language arts and social studies at Hexter, replaced desk chairs with a classroom set of wobble stools this year after spotting them in other classrooms. But she kept a few stationary stools around a table for kids who want to stay still.

And teachers say the repetitive moving isn't for all educators. The wobble chairs have been a challenge for substitute teachers used to stationary chairs, Harris said.

"Having someone come in who's not familiar with them and doesn't necessarily know what's going on or why we have them, that's been a challenge."

Adapting To What's Best For Students

Just like the workplace has changed — think standing desks and stability balls instead of chairs — classrooms are adapting to how students work best.

"We all see the same things: kids wanting to stand or wanting to move around in their chairs," said Shannon Bowden-Veazey, a third-grade teacher at Hexter. "This gives them the opportunity to do that."

Bowden-Veazey instigated flexible seating at Hexter when she brought 13 stability balls into her classroom last year after noticing kids leaning in their desk chairs, balancing on the chairs' back legs.

She can't say for sure whether it's helped academically but said she notices students staying seated who, in the past, would roam the room.

"It gives kids a different way to deal with energy or even some anxiety they're having in their lives," Bowden-Veazey said.

A teacher for more than 20 years, she's noticed kids have a harder time focusing than they did a decade ago. She blames it on a variety of factors such as technology and nutrition.

"It's gotten worse. They can't sit," Bowden-Veazey said.

11. Which detail BEST supports the article's main idea?

a. Second-grader Qualyon Perkins said his favorite seat is the "bouncy ball"
b. Cass is among several Hexter Elementary teachers who have converted their classrooms with hopes to improve students' focus and allow them to choose how they learn best.
c. A KORE wobble chair, which comes in rainbow colors, sells for nearly $70 on Amazon.
d. Caroline Harris, who teaches second-grade reading language arts and social studies at Kexter, replaced desk chairs with a classroom set of wobble stools this year after spotting them in other classrooms

12. Which if the following answer choices describe two MAIN ideas in the article?

a. Teachers like the new idea of letting students move while they learn. Substitute teachers do not like the new arrangement so it will probably end this year.
b. Teachers say wobble chairs and bouncy balls can be helpful for students who need to focus. Some students choose to sit on pillows on the floor.
c. Educators are trying new flexible seating that allows students to fidget while they learn. The new seats are intended to help students focus better.
d. Educators have found a new way to encourage students to focus in the classroom. They say that flexible seating definitely works for all students.

PART 2 Social Studies Section

UNIT 2

13. How were early humans able to migrate from Asia to the Americas?

a. Land bridge
b. Cars
c. Boats
d. Bicycling

14. A person who studies artifacts for clues about the past is called a(n)

a. Cave painter
b. Biologist
c. Archeologist
d. Cave dweller

15. Which of the following time periods describes a time when humans lived as nomadic hunter-gatherers?

a. New Stone Age
b. Neolithic Age
c. Paleolithic
d. Stone Age

16. Which of the following time periods describes a time when humans learned how to raise animals and crops for food?

a. Neolithic Age
b. Old Stone Age
c. Paleolithic Era
d. Stone Age

18. Early ancestors of humans found in prehistoric Africa are called

a. Aliens
b. Hunters
c. Hominids
d. Archaeologists

18. The shift from hunting and gathering to farming is called the Agricultural Revolution because it

a. coincided with the development of wooden tools.

b. changed life dramatically starting the Neolithic time Period

c. began the process of global warming.

d. began a long period of warfare in the Fertile Crescent.

UNIT 3 and 4

19. Why is Mesopotamia referred to as the Fertile Crescent?

a. The dimensions of the land
b. The area was known for its rich farmlands
c. The region was jghiujojlso densely populated
d. None of the above

20. Which civilization of Mesopotamia is considered to be the first advanced civilization, also attributed with inventing an agricultural society, wheels and writing

a. Persians
b. Assyrians
c. Sumerians
d. Babylonians

21. Which king of Mesopotamia instituted a code of laws for his people to live by?

a. Hammurabi
b. Nebuchadnezzar II
c. Sargon
d. Gilgamesh

22. The location of all civilizations is determined by?

a. Resources
b. The leaders
c. Culture
d. Religion

23. Which feature of geography was the most important in helping the development of early river valley civilizations?

A. fertile soils
B. high mountains
C. vast deserts
D. smooth coastlines

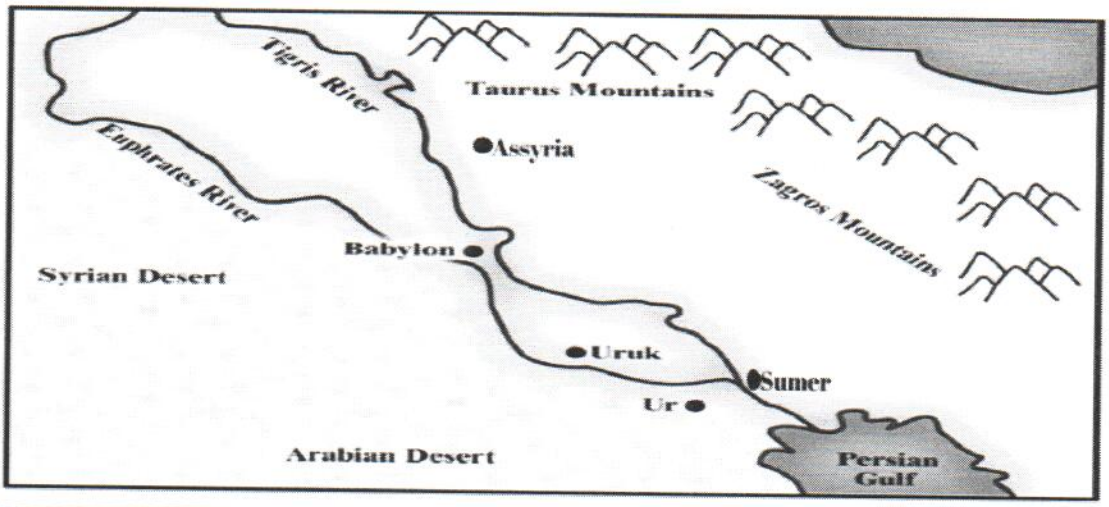
24. How did the Nile River affect the Egyptian people?

A. Caused too much damage making it difficult to live there
B. Provided fertile land for farming, creating a surplus of food*
C. Served as a playground for the children
D. Protected them from outsiders.

MEAL PARAGRAPH ON BACK PAGE!

YAY 4 more sentences away from the finish line :)

25. MEAL PARAGRAPH



Why would the geography of Mesopotamia benefit the development of a civilization?

THINK⟶ WHAT FEATURES OF GEOGRAPHY DO YOU SEE? HOW DO THOSE FEATURES BENEFIT THE CIVILIZATION?

M:

E:

A:

L:

8th grade
(English Language Arts)
end-of-quarter
sample Assessment

If You Were Coming in the Fall

By Emily Dickinson

If you were coming in the fall,

I'd brush the summer by
With half a smile and half a spurn,
As housewives do a fly.

If I could see you in a year,
I'd wind the months in balls,
And put them each in separate drawers,
Until their time befalls.

If only centuries delayed,

I'd count them on my hand,
Subtracting till my fingers dropped
Into Van Diemen's land.

If certain, when this life was out,
That yours and mine should be,

I'd toss it yonder like a rind,
And taste eternity.

But now, all ignorant of the length
Of time's uncertain wing,
It goads me, like the goblin bee,

That will not state its sting.

1. How does the poet organize ideas in this poem? RL.5
    a. The poet organizes ideas in stanzas of four lines each.
    b. The poet organizes ideas in paired lines of three syllables each.
    c. The poet organizes ideas by gradually increasing the number of beats in each line throughout the poem.
    d. The poet organizes ideas by gradually decreasing the number of beats in each line throughout the poem.
2. What is the theme of the poem? RL.2
    a. The life of a housewife
    b. Time
    c. Summer
    d. Fall
3. Read lines 5-9 from the poem:

    If I could see you in a year,
    I'd wind the months into balls,
    And put them each is separate drawers,
    Until their time befalls

    Why might the speaker compare months to balls that he or she would wind and put in drawers? RL.4
    a. To encourage readers to spend time organizing their personal lives in the coming year
    b. To make fun of people who spend long periods of time waiting for something that will never happen
    c. To suggest that a month can seem like an endless amount of time when a person is waiting for something
    d. To convey how unimportant the months are compared to seeing the addressee in a year

Read lines 13-16 from the poem:

If certain, when this life was out,
That yours and mine should be,
I'd toss it yonder like a rind,
And taste eternity

4. What does "it" refer to in these lines? RL.4
    e. "this life" (line 11)
    f. "yours" (line 12)
    g. "mine" (line 13)
    h. "a rind" (line 14)

5. What word or words in the poem indicate that it is addressed to someone? RL.1

America

BY CLAUDE MCKAY

Although she feeds me bread of bitterness,
And sinks into my throat her tiger's tooth,
Stealing my breath of life, I will confess
I love this cultured hell that tests my youth.
Her vigor flows like tides into my blood,
Giving me strength erect against her hate,
Her bigness sweeps my being like a flood.
Yet, as a rebel fronts a king in state,
I stand within her walls with not a shred
Of terror, malice, not a word of jeer.
Darkly I gaze into the days ahead,
And see her might and granite wonders there,
Beneath the touch of Time's unerring hand,
Like priceless treasures sinking in the sand.

6. In the first line, which literary device does author use?
   a. Simile
   b. Personification
   c. Alliteration
   d. Assonance

7. What is the best summary of "America"? 8.2

   A. There are many things that you might hate about America.
   B. No matter what America will always be there.
   C. Although America is not great, there is hope for change.
   D. America will never change no matter how hard people fight for change.

8. What is the tone of the poem "America"? What words does the author use to support the tone? 8.4

9. How does the structure of this poem, "America", compare to the structure of the first poem, "If you were coming in the fall"? How does the structure of each contribute to the meaning? Use text evidence from both poems in your answer.

Questions for the excerpt from *The Peerless Four* by Victoria Patterson. (2016 Released Exam)

10.According to the narrator, what makes basketball appealing? RL.1

a. She likes the feeling of knowing exactly what to do when she plays basketball.
b. She feels the skills needed for playing basketball are simple to master.
c. She things that when she plays basketball she is likely to succeed.
d. She gets to be like her brothers when she plays basketball.

11.According to the narrator, why is basketball "as good as Shakespeare" (lines 16-17)? RL.1

a. It connects her to important people.
b. It helps her to understand her life.
c. It has the power to strongly affect her.
d. It helps her deal with disappointments in life.

12. Based on lines 20 through 29, what can readers conclude about the narrator's father? RL.1

a. He thinks boys and girls should pursue different activities.
b. He believes that siblings should support one another.
c. He values sports more than he values education.
d. He wishes that all of his children were boys.

13. What does the narrator discover in lines 30-36 that affects the plot of the story? RL.2

a. Watching basketball gives her the same feeling as studying.
b. She wants other people to pay more attention to her.
c. She is jealous of the opportunity her brother has.
d. Her passion for basketball is overwhelming.

14. How does the structure of the story contribute to its meaning? RL.5

a. The narrator describes how she differs from her brothers, which leads to a conflict with her father.
b. The narrator expresses her point of view which provides background for the conflict with her father.
c. The narrator describes her frustration with life at home and school, which leads to problems with her father.
d. The narrator begins with a reflection on rules, which leads to an improvement in her relationship with her father.

Directions: Read the following passage and answer the questions that follow.

The Pod

Couldn't Pete talk about anything but *fish*?

Jesse Waring tried to block his cousin's voice, but there was no escape.

"Dolphins aren't fish, they're mammals," Pete was lecturing. "they look big and tough, but they can get stressed or scared, like the stranded dolphin we rescued . . ."

"Jesse?" His mother was standing beside him, her eyes full of concern. His parents were always worrying about him these days, Jesse thought, irritably, and the other relatives were just as bad. Poor Jesse, it's a shame about the accident. He used to be a great athlete . . . Even when they didn't talk to him, he could feel their pitying thoughts.

"Can you go to the store for me?" his mother was saying. "We've run out of milk. at is," she added quickly, "if you're not too tired . . ."

". . . And I want to make sure to visit the Cape Cod Stranding Network," Pete was droning on. "ey have a hotline, and they do great work. . . ."

Yada, yada, yada. "Sure, Mom," Jesse said. *Anything to get away from Pete's lectures and all these pitying eyes.*

He snatched up car keys from the table in the entryway, grabbing his windbreaker as he limped out the door. Once outside, he wished he'd brought his parka—the wind had an icy sting—but he wasn't going back into the house.

He'd always enjoyed the annual Waring family reunion, when cousins, uncles and aunts from all over the country got together and rented a house on New England's Cape Cod, but this March was different. It was the rst time the clan had gathered since the accident.

Jesse didn't want to think about how a man driving a pickup had jumped a red light, slamming into his car and fracturing his legs. Until then Jesse had been the star of the school soccer team, certain of an athletic scholarship.

"Not anymore," he muttered, then frowned as he realized he'd passed the store. Well, OK, there was a convenience store about 30 miles away, and the drive would give him some needed alone time.

At first, the silence was great. But as Jesse drove on the road that wound beside the ocean, he kept thinking how his future had been smashed along with his legs. Pep talks that people gave him made it worse. He was a cripple, and he knew it. These days Jesse always felt as if there was a tight, hard knot in his chest.

On impulse, he turned the wheel, pulling into an empty parking lot that faced the water. He got out and limped down some stairs. Except for screeching seagulls and a few scattered rocks, the beach was deserted.

Suddenly, Jesse tensed. *That rock . . . did it move*? He took a step closer and saw that it was no rock.

The dolphin wasn't very big, not even four feet long. When Jesse hobbled over, the big fish . . . *mammal*, according to Pete . . . rolled an eye at him. How long had it been there? It was breathing, but its sides were heaving painfully.

Fragments of Pete's endless monologue came back to him. His cousin had said that a dolphin's rib structure wasn't built to protect it on land. The body weight of this creature was slowly compressing its vital organs, and if it didn't get back into the water soon, it could die.

It was going to low tide, and the waves seemed far away. The best thing to do was to call Pete, who would know what to do. Jesse reached for his cell phone.

It wasn't there. He'd left it in the pocket of his parka! He could drive home and get Pete, but that would mean leaving the dolphin. Would it be alive when he got back? He knew nothing about this creature except that it was helpless.

The dolphin's eye rolled again, and Jesse felt a sudden jolt of empathy.

It looked as scared as he had felt when they'd wheeled him into the emergency room that afternoon.

"Hey, Bud . . ." Jesse knelt down beside the dolphin. "OK, I can't just leave you to die. But how do I get you back into the water?"

Even if he managed to drag this creature that weighed—what? maybe 75 pounds? back to the water, the coarse sand might damage its skin. Jesse looked helplessly toward the gray ocean and was surprised to see dark shapes arcing out of the waves. A *pod*—Pete's word—of dolphins was out there.

"I think your family's waiting for you, Bud." Carefully, Jesse reached out and patted the dolphin. Was it his imagination that his touch made the dolphin calmer?

Jesse didn't waste time thinking about that. He was trying to remember what Pete had said about how, when he'd helped rescue a stranded dolphin, they had put the creature on a sort of blanket sling and carried that contraption down to the water. Well, he didn't have a blanket handy, so his windbreaker would have to do.

Carefully, Jesse scooped a hollow in the soft sand under the dolphin's head, then eased part of the windbreaker under it. He was streaming with sweat by the time he'd managed to maneuver as much of the dolphin as possible onto its makeshift "blanket," then began to drag the dolphin toward the water.

Twice, his legs buckled under him tumbling him backward onto the sand, but he kept going until water was lapping around his ankles.

"Almost there, Bud," Jesse gritted.

As Jesse waded knee-deep into the water, the dolphin made some kind of noise and then began to swim.

"Woo hoo!" Jesse yelled, then yelped in dismay. The dolphin was swimming back toward the shore.

What was wrong with the crazy creature? Pete's voice began to drone in Jesse's mind again, recounting his own dolphin rescue: *"The dolphin was disoriented. It kept heading for the shore. We had to guide it back into the deep water . . ."*

Jesse waded deeper, past the breakers. Icy waves broke against him as he tried to head off the young dolphin. When he'd finally managed that, it wouldn't turn. He wished he had paid more attention to Pete's lecture, but wishing never helped.

Waves sent freezing spumes into his face. "Bud, you've got to save yourself," Jesse gritted through chattering teeth. "Nobody's going to do it for you. If you give up, you're finished . . ."

Suddenly, as if it had at last understood, the young dolphin turned toward deeper water and began to swim toward the pod. Waiting dolphins arced nearer as if in welcome, and watching them, Jesse thought of his own family. They'd be worried because he'd been gone so long.

My pod, he thought.

He was freezing as he limped back to his car, but he was grinning, and he was happier than he'd been in a long while. He was going to drive to the nearest store and call Pete, who would probably contact that Cape Cod Stranding Network hotline that he'd been talking about. The CCSN would make sure Bud didn't strand again.

"But that's not going to happen anyway," Jesse said aloud.

He had a feeling that the young dolphin was finally on the right track.

15. Why did the author italicize different words, phrases, or sentences through the passage? 8.5

a. To show when a character is talking
b. To show when the main character is remembering something
c. To show the thoughts and memories of the main character
d. To show what the dolphin is thinking

16. The dolphin in "The Pod" is symbolic. What does the dolphin represent? How does this symbol help the reader understand the main idea of the story? Use details from the story to support your response.

In your response, be sure to

- identify what the dolphin represents
- explain how the symbol of the dolphin helps you understand the main idea of the story.
- use details from the story to support your response

Grammar

Explain the function of verbals (gerunds, participles, infinitives) in general and their function in particular sentences. L 8.1 A

17. Circle the sentence that has a gerund.

A. The man ran to the store to get groceries.
B. Running is good exercise.
C. Do not run too fast or you will be injured.
D. Run fast when you have the ball.

18. Which sentence uses an infinitive?

A. Armond hung the phone up to walk to his house.
B. The Carmen Eagles won the game by passing the ball to each other.
C. Your house was wonderful on the inside, thanks for inviting me to dinner.
D. When Destiny went outside, the bitter wind made her look for a hat to wear.

19. Which sentence is correct?

A. I can't imagine to work at home.
B. She seems to liking her new job.
C. Remember to post the letter, otherwise they won't get by Saturday.
D. I am very interested to learning French.

20. Create a sentence using a gerund.

_____

CCSS.ELA-LITERACY.L.8.1.B
Form and use verbs in the active and passive voice.

Rewrite the following passive voice sentences in an active voice.

21. The puppy is being taken care of by the neighbors.

_____
_____

22. The project will be completed before Friday.

_____
_____

23. Which sentence is in passive voice?
    a. The fracture could have been detected by an x-ray.
    b. An x-ray could have detected the hairline fracture in his arm.
24. Which sentence is in passive voice?
    a. They are capturing an enormous alligator in our backyard right now!
    b. The enormous alligator in our backyard is being captured right now!

CCSS.ELA-LITERACY.L.8.2.A
Use punctuation (comma, ellipsis, dash) to indicate a pause or break.

25. Choose the sentence with correct punctuation.
    a. After the soccer game, I finished my homework.
    b. After the soccer game…I finished my homework.
    c. After the soccer game – I finished my homework.
26. Choose the sentence with correct punctuation.
    a. I saw Dr. Miller – the doctor who lives on my street.
    b. I saw Dr. Miller…the doctor who lives on my street.
    c. I saw Dr. Miller the doctor who lives on my street.
27. Choose the sentence with the correct punctuation.
    a. I figured that must be the password - badgers- so I jumped online and went straight to the site.
    b. I figured that must be the password… badgers… so I jumped online and went straight to the site.
    c. I figured that must be the password badgers so I jumped online and went straight to the site.
28. Choose the sentence with correct punctuation.
    a. She said she didn't want to see me anymore but then she liked my Facebook picture.
    b. She said she didn't want to see me anymore - but then she liked my Facebook picture.
    c. She said she didn't want to see me anymore . . . but then she liked my Facebook picture.

CCSS.ELA-LITERACY.L.8.3.A

29. Which sentence best emphasizes the winner of the prize?
    a. Lacey won the 8th grade competition this year.
    b. The 8th grade competition this year was won by Lacey.
30. Which sentence best emphasizes that turtles are harmed?
    a. Tons of plastic litter harms turtles each year.
    b. Turtles are harmed by plastic litter each year.
31. Which sentence shows that the author will be able to call his friend?
    a. I might be able to reach him if I call his cell phone.
    b. I would reach him if I call his cell phone.
32. Which sentence shows that the author wants to work out more?
    a. If I had more free time, I could go to the gym.
    b. If I had more free time, I would go to the gym.