EAST MAINE
SCHOOL DISTRICT 63

Grade Level Standards

Fifth

Updated July 2017

English Language Arts

Reading Standards for Literature	
Key Ideas and Details	• Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text. • Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text. • Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact).
Craft and Structure	• Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes. • Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem. • Describe how a narrator's or speaker's point of view influences how events are described.
Integration of Knowledge and Ideas	• Analyze how visual and multimedia elements in conjunction with words contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction). • Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics.
Range of Reading and Level of Text Complexity	• By the end of the year, read and comprehend literature, including stories, dramas, and poetry, in the grades 4–5 text complexity band independently and proficiently.

Reading Standards for Informational Text	
Key Ideas and Details	• Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text. • Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text. • Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.
Craft and Structure	• Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a *grade 5 topic or subject area*. • Compare and contrast the organizational structure of events, ideas, concepts, or information (e.g., chronology, comparison, cause/effect, problem/solution) in two or more texts. • Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent.
Integration of Knowledge and Ideas	• Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently. • Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence supports which point(s). • Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.
Range of Reading and Level of Text Complexity	• By the end of the year, read and comprehend informational text, including historical, scientific, and technical texts, in the grades 4–5 text complexity band level independently and proficiently.

Grade 5 Standards

Foundational Skills	
Phonics and Word Recognition	• Know and apply grade-level phonics and word analysis skills in decoding words. ○ Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multi-syllabic words in context and out of context.

Fluency	• Read with sufficient accuracy and fluency to support comprehension.
	  ○ Read on-level text with purpose and understanding.
	  ○ Read on-level prose and poetry orally with accuracy, appropriate rate, and expression.
	  ○ Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Speaking and Listening	

Comprehension and Collaboration	• Engage effectively in a range of collaborative discussions (one-on-one and in groups) on *grade 5 topics and texts*, building on others' ideas and expressing their own clearly.
	  ○ Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
	  ○ Follow agreed-upon rules for discussions and carry out assigned roles.
	  ○ Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.
	  ○ Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.
	• Summarize written texts read aloud or information presented graphically, orally, visually, or multi-modally.
	• Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence.

Presentation of Knowledge and Ideas	• Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace. • Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes. • Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation.

Writing Standards	

Text Types and Purposes	• Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
	  ○ Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose.
	  ○ Provide logically ordered reasons that are supported by facts and details.
	  ○ Link opinion and reasons using words, phrases, and clauses (e.g., *consequently*, *specifically*).
	  ○ Provide a concluding statement or section related to the opinion presented.
	• Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
	  ○ Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
	  ○ Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
	  ○ Link ideas within and across categories of information using words, phrases, and clauses (e.g., *in contrast*, *especially*).

Writing Standards	
	○ Use precise language and domain-specific vocabulary to inform about or explain the topic. ○ Provide a concluding statement or section related to the information or explanation presented. • Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. ○ Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally. ○ Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations. ○ Use a variety of transitional words, phrases, and clauses to manage the sequence of events. ○ Use concrete words and phrases and sensory details to convey experiences and events precisely. ○ Provide a conclusion that follows from the narrated experiences or events.
Production and Distribution of Writing	• Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. • With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. • With some guidance and support from adults, use technology, including the Internet, to produce and publish a minimum of two pages of writing (using the keyboard) as well as to interact and collaborate with others.
Research to Build and Present Knowledge	• Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic. • Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources. • Draw evidence from literary or informational texts to support analysis, reflection, and research. ○ Apply *grade 5 Reading standards* to literature (e.g., —Compare and contrast two or more characters, settings, or events in a story or a drama, drawing on specific details in the text‖). ○ Apply *grade 5 Reading standards* to informational texts (e.g., —Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence supports which point[s]).
Range of Writing	• Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Language Standards	
Conventions	• Observe conventions of grammar and usage when writing or speaking. ○ Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences. ○ Form and use the perfect (e.g., *I had walked*; *I have walked*; *I will have walked*) verb aspects. ○ Use verb tense and aspect to convey various times, sequences, states, and conditions. ○ Recognize and correct inappropriate shifts in verb tense and aspect. ○ Use correlative conjunctions. • Observe conventions of capitalization, punctuation, and spelling when writing. ○ Use punctuation to separate items in a series. ○ Use a comma to separate an introductory element from the rest of the sentence.

Language Standards	
	○ Use a comma to set off the words *yes* and *no* (e.g., *Yes, thank you*), to set off a tag question from the rest of the sentence (e.g., *It's true, isn't it?*), and to indicate direct address (e.g., *Is that you, Steve?*). ○ Use underlining, quotation marks, or italics to indicate titles of works. ○ Spell grade-appropriate words correctly, consulting references as needed.
Effective Language Use	• Use language to enhance meaning, convey style, and achieve particular effects when writing or speaking. ○ Expand, combine, and reduce sentences for meaning, reader/listener interest, and style.
Vocabulary Acquisition and Usage	• Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 5 reading and content*, choosing flexibly from a range of strategies. ○ Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase. ○ Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., *photograph*, *photosynthesis*). ○ Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases. • Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. ○ Interpret figurative language, including similes and metaphors, in context. ○ Recognize and explain the meaning of common idioms, adages, and proverbs. ○ Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words. • Acquire and use accurately grade-appropriate general academic and domain-specific vocabulary, including words and phrases that signal contrast, addition, and other logical relationships (e.g., *however*, *although*, *nevertheless*, *similarly*, *moreover*, *in addition*).

Math

Operations and Algebraic Thinking	
Write and interpret numerical expressions.	• Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols. • Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. *For example, express the calculation "add 8 and 7, then multiply by 2" as 2 × (8 + 7). Recognize that 3 × (18932 + 921) is three times as large as 18932 + 921, without having to calculate the indicated sum or product.*
Analyze patterns and relationships.	• Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. *For example, given the rule "Add 3" and the starting number 0, and given the rule "Add 6" and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.*

Number and Operations in Base Ten	
Understand the place value system.	• Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left. • Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a

Number and Operations in Base Ten	

	decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.
	• Read, write, and compare decimals to thousandths.
	  ○ Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., 347.392 = 3 × 100 + 4 × 10 + 7 × 1 + 3 × (1/10) + 9 × (1/100) + 2 × (1/1000).
	  ○ Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.
	• Use place value understanding to round decimals to any place.

Perform operations with multi-digit whole numbers and with decimals to hundredths.	• Fluently multiply multi-digit whole numbers using the standard algorithm. • Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models. • Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Number and Operations – Fractions	
Use equivalent fractions as a strategy to add and subtract fractions.	• Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. *For example, 2/3 + 5/4 = 8/12 + 15/12 = 23/12. (In general, a/b + c/d = (ad + bc)/bd.)* • Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. *For example, recognize an incorrect result 2/5 + 1/2 = 3/7, by observing that 3/7 < 1/2.*

Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	• Interpret a fraction as division of the numerator by the denominator ($a/b = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem. *For example, interpret 3/4 as the result of dividing 3 by 4, noting that 3/4 multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size 3/4. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?*
	• Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.
	  ○ Interpret the product $(a/b) \times q$ as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$. *For example, use a visual fraction model to show (2/3) × 4 = 8/3, and create a story context for this equation. Do the same with (2/3) × (4/5) = 8/15. (In general, (a/b) × (c/d) = ac/bd.)*
	  ○ Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.
	• Interpret multiplication as scaling (resizing), by:
	  ○ Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.
	  ○ Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole

Number and Operations – Fractions	
	numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence $a/b = (n \times a)/(n \times b)$ to the effect of multiplying a/b by 1. • Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem. • Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions. (Students able to multiply fractions in general can develop strategies to divide fractions in general, by reasoning about the relationship between multiplication and division. But division of a fraction by a fraction is not a requirement at this grade.) o Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. *For example, create a story context for (1/3) ÷ 4, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that (1/3) ÷ 4 = 1/12 because (1/12) × 4 = 1/3.* o Interpret division of a whole number by a unit fraction, and compute such quotients. *For example, create a story context for 4 ÷ (1/5), and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that 4 ÷ (1/5) = 20 because 20 × (1/5) = 4.* o Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. *For example, how much chocolate will each person get if 3 people share 1/2 lb of chocolate equally? How many 1/3-cup servings are in 2 cups of raisins?*

Measurement and Data	
Convert like measurement units within a given measurement system.	• Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.
Represent and interpret data.	• Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Use operations on fractions for this grade to solve problems involving information presented in line plots. *For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.*
Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.	• Recognize volume as an attribute of solid figures and understand concepts of volume measurement. o A cube with side length 1 unit, called a "unit cube," is said to have "one cubic unit" of volume, and can be used to measure volume. o A solid figure which can be packed without gaps or overlaps using *n* unit cubes is said to have a volume of *n* cubic units. • Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units. • Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume. o Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication. o Apply the formulas $V = l \times w \times h$ and $V = b \times h$ for rectangular prisms to find volumes of right rectangular prisms with whole number edge lengths in the context of solving real world and mathematical problems.

	○ Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.

Geometry	
Graph points on the coordinate plane to solve real-world and mathematical problems.	• Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., *x*-axis and *x*-coordinate, *y*-axis and *y*-coordinate). • Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.
Classify two-dimensional figures into categories based on their properties.	• Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. *For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.* • Classify two-dimensional figures in a hierarchy based on properties.

Science and Health

Science
• Develop a model to describe that matter is made of particles too small to be seen. • Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved. • Make observations and measurements to identify materials based on their properties. • Conduct an investigation to determine whether the mixing of two or more substances results in new substances. • Support an argument that the gravitational force exerted by Earth on objects is directed down. • Use models to describe that energy in animals food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun. • Support an argument that plants get the materials they need for growth chiefly from air and water. • Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment. • Support an argument that differences in the apparent brightness of the sun compared to other stars is due to their relative distances from Earth. • Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky. • Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact. • Describe and graph the amounts and percentages of water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth. • Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment. • Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost. • Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. • Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

Health
• Demonstrate strategies for the prevention and reduction of communicable disease, (e.g., cleanliness, healthy food choices, check-ups) • Describe the benefits of early detection and treatment of illness • Describe how individuals and groups affect/influence the health of others, (e.g., peer pressure, media and advertising, tobacco, alcohol, drugs) • Explain interrelationships between the environment and health, (e.g., respiratory problems) • Demonstrate proper safety procedures on buses and playground • Learn to protect body from physical injury, (e.g., clothing, protective equipment) • Describe and explain the structure and function of the respiratory system • Explain how health choices affect the performances of the body's systems • Differentiate between positive and negative effects of health-related actions on body systems, (e.g., drug use) • Describe factors that affect growth and development of the human body • Make good choices by examining the nutritional fact labels • List factors that contribute to positive self-esteem

Social Studies

Inquiry Skills
• Constructing Essential Questions • Constructing Supporting Questions • Determining Helpful Sources • Gathering and Evaluating Sources • Developing Claims and Using Evidence • Communicating Conclusions • Critiquing Conclusions • Taking Informed Action

Civics
• Distinguish responsibilities of government officials at various levels, branches • Examine origins and purposes of rules, laws and U.S. Constitutional provisions • Compare the origins, functions and structure of different systems of government • Explain how policies are developed to address public problems

Geography
• Investigate change over time in cultural and environmental characteristics • Describe how humans have utilized natural resources in the United States • Analyze effects of events that impacted the US and compare to other places • Compare the environmental characteristics of the United States to world regions

Economics and Financial Literacy
• Analyze why and how individuals, businesses, and nations specialize and trade • Discover how + and - incentives influence behavior in US and world economy • Determine ways the government pays for the goods and services it provides • Explain that interest is the price the borrower pays for using someone's money

History
• Create a sequence of events to compare those which occurred at the same time • Use information about a historical source to determine if a source is useful • Explain probable causes and effects of events and developments in U.S. history

Art

Concepts
• Understand intermediate and complementary colors through the creation of a color wheel • Continue to explore patterns found in visual culture • Recognize different art styles • Identify different venues where art can be displayed

Production
• Produce the illusion of 3D in art work and introduce linear perspective. • Demonstrate the use of parallel and converging lines • Create relief texture • Demonstrate foreground, middle ground and background. • Develop a composition with a center of interest • Demonstrate a selective use of contrast • Demonstrate highlight and shadow to make an illusion of 3D • Learn and understand the use of available creative technologies related to current projects when relevant • Continue to learn and understand the safe and responsible use of tools and media related to current projects • Paint, draw, cut, glue, sculpting, printing, mixed media

Engagement and Integration
• Learn and understand careers in the arts related to current projects when relevant • Follows directions • Stays on task • Completes projects

Music

Understands Music Concepts
• Expand repertoire • Recognize melodic and rhythmic phrases • Compare the role of musicians and functions of music around the world • Recognize major/minor chords • Identify pitch relationships • Identify forms: AB, ABA, and rondo • Understand the role of music in American history • Recognize meters: 2/4, 4/4, ¾, 6/8 • Identify tempo markings: presto allegro, andante, largo • Identify theme and variations • Introduce chord progressions • Identify musical styles such as blues, jazz, and classical • Describe the way subject matter in other areas is related to music • Describe elements of music used in music around the world

Demonstrates Music Skills
• Sing independently or in small groups with correct pitches and in tempo • Sing with appropriate expression • Perform basic rhythmic and melodic patterns on instruments in tempo, alone or in groups, with correct technique • Develop skills on the recorder • Identify and read basic notation of all note and rest values • Introduce syncopation and perform syncopated rhythms • Sing in 2-part harmony with appropriate dynamics and breath support • Achieve visual and auditory recognition of the instruments of the symphonic orchestra/band

Engages in Music Activities
• Follow directions • Stays on task during class • Participates by singing, moving, playing instruments, creating, and listening

Physical Education

Fitness Concepts
• Describe and explain the structure of body systems and how they interrelate • Actively engages in moderate-to-vigorous physical activity during class • Know and apply fitness principles

Movement Concepts and Skills
• Demonstrate physical competency in a variety of motor skills-movement patterns • Identify and perform manipulative skills • Identify and perform non-locomotor skills

Engagement and Sportsmanship
• Is prepared for class (has necessary equipment, shoes tied, etc.) • Demonstrates personal responsibility during group physical activities • Demonstrates cooperative skills during physical activity