## Running River School Middle School Curriculum Guide

Running River is a school that recognizes learning as natural, that a love of learning is normal, and that real learning is passionate learning. We have a school curriculum that values questions above answers...creativity above fact regurgitation...individuality above conformity, and excellence above standardized performance. (taken from quote by Tom Peters) Our education guides children to know who they are and what they're passionate about; to develop the skills for critical thinking, collaboration, creativity and meeting challenges, so that they manifest their gifts and talents to serve humanity and the planet.

In this book you will find a curriculum guide that lists academic content and skills (as is appropriate for a guide) for grades 6-8. Our intent is to show how our curriculum spirals from one grade to the next, so we set our formatting to that feature.

The heart of our curriculum is in our philosophy. The key components of Running River's curriculum are:

- Meaningful, Experiential, Inquiry and Project Based Curriculum based on the latest brain research
- Integrated Academics
- Real life work presented to authentic audiences
- Mixed Ages/Collaborative AND Individual Learning
- Responsibility/Integrity of engagement & work increasingly coming from the child
- Mastery (quality and excellence of work & skill acquisition)
- In-depth learning from every angle
  - Experimentation
  - o Books
  - Internet
  - Experts and community mentors
  - Collaborative Work
  - Questioning
  - o Problem solving and original design work
- Learning how to learn and transference across subject areas
- Inner development and outer knowledge go hand in hand...a balanced education cultivates abilities beyond the verbal and conceptual to include matters of heart, character, creativity, self-knowledge, concentration, openness and mental flexibility.
- Communication/Harmonious Living
- Outdoor Education and personal connection to nature
- Life Skills in every area of living
- The Arts
- Physical Fitness and development of capacities

| Area of Study | 6 <sup>th</sup> Grade | 7 <sup>th</sup> Grade | 8 <sup>th</sup> Grade |
|---------------|-----------------------|-----------------------|-----------------------|
|               | READING               | READING               | READING               |
|               |                       |                       |                       |

| Literacy | <ul> <li>Key Ideas and Details</li> <li>Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.</li> <li>Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.</li> <li>Describe how a particular story's or drama's plot unfolds in a series of episodes as well as how the characters respond or change as the plot moves toward a resolution.</li> <li>Analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text.</li> </ul> | Key Ideas and Details:  •Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.  •Determine a theme or central idea of a text and analyze its development over the course of the text; provide an objective summary of the text.  •Analyze how particular elements of a story or drama interact (e.g., how setting shapes the characters or plot).  | Key Ideas and Details:  •Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.  •Determine a theme or central idea of a text and analyze its development over the course of the text, including its relationship to the characters, setting, and plot; provide an objective summary of the text.  •Analyze how particular lines of dialogue or incidents in a story or drama propel the action, reveal aspects of a character, or provoke a decision.  |
|----------|--|--|--|
|          | Craft and Structure:  •Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone  •Analyze how a particular sentence, chapter, scene, paragraph, or stanza fits into the overall structure of a text and contributes to the development of the theme, setting, plot or idea of the text.  •Explain how an author develops the point of view of the narrator or speaker in a text.   | Craft and Structure:  •Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of rhymes and other repetitions of sounds (e.g., alliteration) on a specific verse or stanza of a poem or section of a story or drama.  •Analyze the structure an author uses to organize a text (e.g., soliloquy, sonnet) and how it contributes to its meaning  •Analyze how an author develops and contrasts the points of view of different characters or narrators in a text. | Craft and Structure:  •Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.  •Compare and contrast the structure of two or more texts and analyze how the differing structure of each text contributes to its meaning and style.  •Analyze how differences in the points of view of the characters and the audience or reader (e.g., created through the use of dramatic irony) create such effects as suspense or humor. |
|          | Integration of Knowledge and Ideas:  •Compare and contrast the experience of reading a story, drama, or poem to listening to or viewing an audio, video, or live version of the text, including contrasting what they "see" and "hear" when reading the text to what they perceive when they listen or watch.  •Compare and contrast texts in different forms or genres (e.g., stories and poems; historical novels and fantasy stories) in terms of their approaches to similar   | Integration of Knowledge and Ideas:  •Compare and contrast a text, written story, drama, or poem to its audio, filmed, staged, or multimedia version, analyzing the effects of techniques unique to each medium (e.g., lighting, sound, color, or camera focus and angles in a film).  •Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history.   | Integration of Knowledge and Ideas:  • Analyze the extent to which a filmed or live production of a story or drama stays faithful to or departs from the text or script, evaluating the choices made by the director or actors.  • Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works such as the Bible, including describing how the material is rendered new.  |

|               | themes and topics.  •Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not.  Range of Reading and Level of Text Complexity  •By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range.   | Range of Reading and Level of Text Complexity:  •By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range.   | Range of Reading and Level of Text Complexity:  •By the end of the year, read and comprehend literature, including stories, dramas, and poems, at the high end of grades 6-8 text complexity band independently and proficiently.  |
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| Area of Study | 6 <sup>th</sup> Grade   | 7 <sup>th</sup> Grade  | 8 <sup>th</sup> Grade  |
| Literacy      | WRITING   | WRITING  | WRITING  |
|               | Text Types and Purposes:  •Write arguments to support claims with clear reasons and relevant evidence.  •Introduce claim(s) and organize the reasons and evidence clearly.  •Support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text.  •Use words, phrases, and clauses to clarify the relationships among claim(s) and reasons.  •Establish and maintain a formal style.  •Provide a concluding statement or section that follows from the argument presented.  •Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.  •Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and | <ul> <li>Text Types and Purposes:</li> <li>Write arguments to support claims with clear reasons and relevant evidence.</li> <li>Introduce claim(s), acknowledge alternate or opposing claims, and organize the reasons and evidence logically.</li> <li>Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text.</li> <li>Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), reasons, and evidence.</li> <li>Establish and maintain a formal style.</li> <li>Provide a concluding statement or section that follows from and supports the argument presented.</li> <li>Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</li> <li>Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and</li> </ul> | • Write arguments to support claims with clear reasons and relevant evidence. • Introduce claim(s), acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically. • Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text. • Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence. • Establish and maintain a formal style. • Provide a concluding statement or section that follows from and supports the argument presented. • Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. • Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. • Develop the topic with relevant, well-chosen facts, |

|               | cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.  • Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.  • Use appropriate transitions to clarify the relationships among ideas and concepts.  • Use precise language and domain-specific vocabulary to inform about or explain the topic.  • Write narratives to develop real or imagined experiences or events using descriptive details, and well-structured event sequences.  • Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically. | cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.  • Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.  • Use appropriate transitions to create cohesion and clarify the relationships among ideas and concepts.  • Use precise language and domain-specific vocabulary to inform about or explain the topic.  • Provide a concluding statement or section that follows from and supports the information or explanation presented.  • Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.  • Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically.  • Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters.  • Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another.  • Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events.  • Provide a conclusion that follows from and reflects on the narrated experiences or events. | definitions, concrete details, quotations, or other information and examples.  •Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.  •Use precise language and domain-specific vocabulary to inform about or explain the topic.  •Provide a concluding statement or section that follows from and supports the information or explanation presented.  •Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.  •Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically.  •Use narrative techniques, such as dialogue, pacing, description, and reflection, to develop experiences, events, and/or characters.  •Use a variety of transition words, phrases, and clauses to convey sequence, signal shifts from one time frame or setting to another, and show the relationships among experiences and events.  •Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events.  •Provide a conclusion that follows from and reflects on the narrated experiences or events. |
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| Area of Study | 6 <sup>th</sup> Grade   | 7 <sup>th</sup> Grade   | 8 <sup>th</sup> Grade   |
| Literacy      | Production and Distribution of Writing:  •With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new   | •With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been  | Production and Distribution of Writing:  • With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.   |

| approach.   | addressed.  •Use technology, including the Internet, to produce and publish writing and link to and cite sources as well as to interact and collaborate with others.  | •Use technology, including the Internet, to produce<br>and publish writing and present the relationships<br>between information and ideas efficiently as well as to<br>interact and collaborate with others.   |
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| Research to Build and Present Knowledge:  Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.  Gather relevant information from multiple print and digital sources; assess the credibility of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources.  Draw evidence from literary or informational texts to support analysis,   | Research to Build and Present Knowledge:  Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.  Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.  Draw evidence from literary or informational texts to support analysis, reflection, and research.   | <ul> <li>Research to Build and Present Knowledge:</li> <li>Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.</li> <li>Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.</li> <li>Draw evidence from literary or informational texts to support analysis, reflection, and research.</li> </ul>  |
| reflection, and research. SPEAKING AND LISTENING  | SPEAKING AND LISTENING  | SPEAKING AND LISTENING   |
| Comprehension and Collaboration:  •Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on relevant topics, texts, and issues, building on others' ideas and expressing their own clearly.  •Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.  •Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed.  •Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion. | Comprehension and Collaboration:  •Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on relevant topics, texts, and issues, building on others' ideas and expressing their own clearly.  •Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.  •Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed.  •Pose questions that elicit elaboration and respond to others' questions and ideas that bring the discussion back on topic as needed.  •Acknowledge new information expressed by others and, when warranted, modify their own | Comprehension and Collaboration:  •Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on relevant topics, texts, and issues, building on others' ideas and expressing their own clearly.  •Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.  •Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed.  •Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas.  •Acknowledge new information expressed by others, and, when warranted, qualify or justify their own |

|               | <ul> <li>Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.</li> <li>Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.</li> <li>Delineate a speaker's argument and specific claims, distinguishing claims that are supported by reasons and evidence from claims that are not.</li> </ul>                                 | views.  •Analyze the main ideas and supporting details presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how the ideas clarify a topic, text, or issue under study.  •Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and the relevance and sufficiency of the evidence.  | views in light of the evidence presented.  • Analyze the purpose of information presented in diverse media and formats (e.g., visually, quantitatively, orally) and evaluate the motives (e.g., social, commercial, political) behind its presentation.  • Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and relevance and sufficiency of the evidence and identifying when irrelevant evidence is introduced.  |
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| Area of Study | 6 <sup>th</sup> Grade  | 7 <sup>th</sup> Grade   | 8 <sup>th</sup> Grade   |
| Literacy      | Presentation of Knowledge and Ideas:  •Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.  •Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.  •Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. | Presentation of Knowledge and Ideas:  • Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.  • Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.  • Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. | Presentation of Knowledge and Ideas:  •Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation.  •Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.  •Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. |
|               | LANGUAGE   | LANGUAGE  | LANGUAGE  |
|               | Conventions of Standard English:  •Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.  •Ensure that pronouns are in the proper case (subjective, objective, possessive).  •Use intensive pronouns (e.g., myself, ourselves).  •Recognize and correct inappropriate shifts in pronoun number and person.  •Recognize variations from standard English in their own and others' writing  | Conventions of Standard English:  •Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.  •Explain the function of phrases and clauses in general and their function in specific sentences.  •Choose among simple, compound, complex, and compound-complex sentences to signal differing relationships among ideas.  •Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.                                     | Conventions of Standard English:  •Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.  •Explain the function of verbals (gerunds, participles, infinitives) in general and their function in particular sentences.  •Form and use verbs in the active and passive voice.  •Recognize and correct inappropriate shifts in verb voice and mood.  •Demonstrate command of the conventions of standard English capitalization, punctuation, and   |

|          | and speaking, and identify and use strategies to improve expression in conventional language.  •Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.  •Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements.  •Spell correctly.  | •Spell correctly.   | spelling when writing.  •Use punctuation (comma, ellipsis, dash) to indicate a pause or break.  •Spell correctly.  |
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|          | Knowledge of Language:   | Knowledge of Language:  | Knowledge of Language:   |
|          | <ul> <li>Use knowledge of language and its conventions when writing, speaking, reading, or listening.</li> <li>Vary sentence patterns for meaning, reader/listener interest, and style.</li> <li>Maintain consistency in style and tone.</li> </ul>  | <ul> <li>Use knowledge of language and its conventions when writing, speaking, reading, or listening.</li> <li>Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy.</li> </ul>   | •Use knowledge of language and its conventions when writing, speaking, reading, or listening. •Use verbs in the active and passive voice and in the conditional and subjunctive mood to achieve particular effects (e.g., emphasizing the actor or the action; expressing uncertainty or describing a state contrary to fact).   |
|          | Vocabulary Acquisition and Use:  | Vocabulary Acquisition and Use:   | Vocabulary Acquisition and Use:  |
| Literacy | <ul> <li>•Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.</li> <li>•Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., audience, auditory, audible).</li> <li>•Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.</li> <li>•Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).</li> <li>•Demonstrate understanding of figurative language, word relationships, and</li> </ul> | <ul> <li>Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.</li> <li>Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., belligerent, bellicose, rebel).</li> <li>Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.</li> <li>Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).</li> <li>Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</li> </ul> | <ul> <li>Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.</li> <li>Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., precede, recede, secede).</li> <li>Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.</li> <li>Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).</li> <li>Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</li> <li>Interpret figures of speech (e.g. verbal irony, puns) in context.</li> </ul> |
|          | nuances in word meanings. •Interpret figures of speech (e.g.,  | •Interpret figures of speech (e.g., literary, biblical, and mythological allusions) in context.   | •Use the relationship between particular words to better understand each of the words.   |

| personification) in context.                          | •Use the relationship between particular words                   | •Distinguish among the connotations (associations) of    |
|---|--|--|
| •Distinguish among the connotations                   | (e.g., synonym/antonym, analogy) to better                       | words with similar denotations (definitions)             |
| (associations) of words with similar                  | understand each of the words.                                    | (e.g., bullheaded, willful, firm, persistent, resolute). |
| denotations (definitions) (e.g., stingy,              | •Distinguish among the connotations                              | •Acquire and use accurately grade-appropriate general    |
| scrimping, economical, unwasteful,                    | (associations) of words with similar                             | academic and domain-specific words and phrases;          |
| thrifty).   | denotations (definitions) (e.g., refined,                        | gather vocabulary knowledge when considering a           |
| <ul> <li>Acquire and use accurately grade-</li> </ul> | respectful, polite, diplomatic, condescending).                  | word or phrase important to comprehension or             |
| appropriate general academic and                      | <ul> <li>Acquire and use accurately grade-appropriate</li> </ul> | expression.  |
| domain-specific words and phrases;                    | general academic and domain-specific words                       |  |
| gather vocabulary knowledge when                      | and phrases; gather vocabulary knowledge                         |  |
| considering a word or phrase important to             | when considering a word or phrase important                      |  |
| comprehension or expression.                          | to comprehension or expression.                                  |  |

**Resources and Assessments:** Daily Reading Instruction, Quality Reading Assessments, Center for Teaching and Learning; Step Up to Writing; Donald Graves; Worldly Wise; Spelling Power; Rubrics for written projects; portfolios.

**Projects:** Annual RR Book Fair where every student publishes a narrative to be partially read and sold to the public; Shakespeare; theater production; portfolios; presenting work at parent night and parent conferences, passage portfolios. Every year projects will be determined that will best engage learners. Examples from past years: The Hero's Cycle (Joseph Campbell); individual research projects using reading and a final product that includes a presentation and written paper; school magazine.

| Content Area | Sixth Grade   | Seventh Grade   | Eighth Grade  |
|--------------|---|---|---|
| Math         | Skills  | Skills  | Skills  |
|              | Ratio and Proportional Relationships  | Ratio and Proportional Relationships  | Functions   |
|              | <ul> <li>Understand ratio concepts and use ratio reasoning to solve problems</li> <li>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</li> <li>Solve unit rate problems including those involving unit pricing and constant speed</li> <li>Find a percent of a quantity as a rate per 100</li> <li>Use ratio reasoning to convert measurement</li> </ul> | <ul> <li>Analyze proportional relationships and use them to solve real-world and mathematical problems</li> <li>Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units</li> <li>Recognize and represent proportional relationships between quantities</li> <li>Use proportional relationships to solve multistep ratio and percent problems</li> </ul> | Define, evaluate, and compare functions     Use functions to model relationships between quantities   |
|              | units   |   |   |
|              | The Number System   | The Number System   | The Number System   |
|              | <ul> <li>Perform operations with fractions and mixed numbers</li> <li>Apply and extend previous understandings of multiplication and division to divide fractions by fractions</li> </ul>   | <ul> <li>Apply and extend previous understandings of<br/>addition and subtraction to add and subtract<br/>rational numbers; represent addition and<br/>subtraction on a horizontal or vertical number<br/>line diagram</li> </ul>   | 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 |

|              | <ul> <li>Compute fluently with multi-digit numbers and find common factors and multiples</li> <li>Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation</li> <li>Apply and extend previous understandings of numbers to the system of rational numbers</li> <li>Graph points in all four quadrants of the coordinate plane</li> <li>Find and position integers and other rational numbers on a horizontal or vertical number line diagram</li> <li>Understand ordering and absolute value of rational numbers</li> </ul>   | Apply and extend previous understandings of<br>multiplication and division and of fractions to<br>multiply and divide rational numbers   | 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  |
|--------------|--|--|---|
| Content Area | Sixth Grade  | Seventh Grade  | Eighth Grade  |
| Math         | Skills   | Skills   | Skills  |
|              | <ul> <li>Expressions and Equations</li> <li>Apply and extend previous understandings of arithmetic to algebraic expressions</li> <li>Write and evaluate numerical expressions involving whole-number exponents</li> <li>Write, read, and evaluate expressions in which letters stand for numbers</li> <li>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</li> <li>Use order of operations when solving problems</li> <li>Apply the properties of operations (like the distributive property) to generate equivalent expressions</li> <li>Identify when two expressions are equivalent</li> <li>Reason about and solve one-variable equations and inequalities</li> <li>Represent and analyze quantitative relationships between dependent and independent variables</li> </ul> | Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients     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     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 | <ul> <li>Expressions and Equations</li> <li>Know and apply the properties of integer exponents to generate equivalent numerical expressions</li> <li>Use square root and cube root symbols to represent solutions to equations</li> <li>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</li> <li>Perform operations with numbers expressed in scientific notation</li> <li>Understand the connections between proportional relationships, lines, and linear equations</li> <li>Analyze and solve linear equations and pairs of simultaneous linear equations</li> </ul> |
|              | Geometry   | Geometry   | Geometry  |

## • Draw, construct, and describe geometrical • Understand congruence and similarity using • Solve real-world and mathematical problems involving area, surface area, and figures and describe the relationships physical models or transparencies volume between them. • Verify experimentally the properties of rotations, • Find the area of right triangles, other • Solve problems involving scale drawings of reflections, and translations Math triangles, special quadrilaterals, and geometric figures • Describe the effect of dilations, translations. polygons • Draw geometric shapes with given conditions rotations, and reflections on two-dimensional • Find the volume of a right rectangular prism figures using coordinates • Describe the two-dimensional figures that with fractional edge lengths result from slicing three-dimensional figures • Use informal arguments to establish facts about the • Draw polygons in the coordinate plane • Solve real-life and mathematical problems angle sum and exterior angle of triangles, about the given coordinates for the vertices; use involving angle measure, area, surface area, angles created when parallel lines are cut by a coordinates to find the length of a side transversal, and the angle-angle criterion for and volume similarity of triangles • Represent three-dimensional figures using Know the formulas for the area and nets made up of rectangles and triangles, • Understand and apply the Pythagorean Theorem circumference of a circle and use them to and use the nets to find the surface area of • Know the formulas for the volumes of cones. solve problems these figures • Use facts about supplementary, cylinders, and spheres and use them to solve realcomplementary, vertical, and adjacent angles world and mathematical problems in a multi-step problem to write and solve simple equations for an unknown angle in a figure **Probability and Statistics Probability and Statistics Probability and Statistics** • Develop understanding of statistical • Use random sampling to draw inferences • Investigate patterns of association in bivariate data variability about a population • Construct and interpret scatter plots • Recognize a statistical question as one that • Draw informal comparative inferences about • Estimating lines of fit anticipates variability in the data related to two populations • Construct and interpret a two-way table the question and accounts for it in the • Investigate chance processes and develop, summarizing data on two categorical variables collected from the same subjects. Use relative answers use, and evaluate probability models • Understand that a set of data collected to • Understand that the probability of a chance frequencies calculated for rows or columns to answer a statistical question has a event is a number between 0 and 1 that describe possible association between the two distribution which can be described by its expresses the likelihood of the event variables center, spread, and overall shape. occurring • Recognize that a measure of center for a • Find probabilities of compound events using numerical data set summarizes all of its organized lists, tables, tree diagrams, and values with a single number, while a simulation measure of variation describes how its values vary with a single number • Summarize and describe distributions • Display numerical data in plots on a number line, including dot plots, histograms, and box plots

**Resources and Assessments:** Singapore Math: Math in Focus ;Common Core; Everyday Mathematics; Bridges Mathematics; Khan Academy.

| Life Skills, Science and Social Studies  |  |   |  |  |
|--|--|---|--|--|
| Year One: Growth and Change Year Two: Shelter and Systems  |  | Year Three: Current Events & Community  |  |  |
| Life Skill: Food  • What is our relationship to food? • Cooking, planning, shopping, budgeting • Nutrition: What happens in our bodies? • Gardening: Growing & Harvesting  Chemistry & Life Science • Food chemistry • Evolution   | Life Skill: Building & Fixing  • Why do we build?  • A brief history of architecture  • Visiting buildings  • Meeting architects  • Designing & building project   Earth Science, Space, Physics  • The Universe  • Our planet   | Life Skill: Survival Skills for the 21 <sup>st</sup> century  Relating, communicating, expressing Work Skills Living skills Wilderness skills  Environmental Education Global Warming Alternative Energy  |  |  |
| Allopathy vs. Holistic medicine     The body as an integrated system   | How things work  |   |  |  |
| <ul> <li>History of Change &amp; Growth</li> <li>How does change effect all aspects of life?</li> <li>How is our brain changing? (specific study of the adolescent brain)</li> <li>How do people make change happen? Are we in a period of change now?</li> <li>Civil War &amp; Industrial Revolution</li> </ul> | <ul> <li>History of Government</li> <li>What is the purpose of government?</li> <li>Major governmental systems in the world and how they evolved</li> <li>What would utopia look like?</li> <li>What is war? World Wars I &amp; II</li> <li>Movements for peace and non-violence: Ghandi, MLK</li> </ul>             | <ul> <li>A year long study of Current Events:</li> <li>Different sources of information</li> <li>A study of advertising, propaganda and media</li> <li>What is happening around the world and where do we place our attention?</li> <li>Historical trends: lessons to learn</li> <li>Service: how can we help?</li> </ul>   |  |  |
| The class will choose a project related to food to work on for 6 weeks.  The project:     has a service element     is trans-disciplinary     culminates in a multi-media and written portfolio of work to present to a panel for critique.     is presented to an authentic audience                            | The class will choose a project related to shelter/building/belonging/system s to work on for 6 weeks.  The project:     has a service element     is trans-disciplinary     culminates in a multi-media and written portfolio of work to present to a panel for critique.     is presented to an authentic audience | <ul> <li>Individual Passion Project</li> <li>8<sup>th</sup> graders explore a primary passion, 6<sup>th</sup>-7<sup>th</sup> graders a project related to community and making a difference.</li> <li>The project:         <ul> <li>has a service element</li> <li>is trans-disciplinary</li> <li>culminates in a multi-media and written portfolio of work to present to a panel for critique.</li> <li>is presented to an authentic audience</li> </ul> </li> </ul> |  |  |