Grade Three

English-Language Arts Content Standards

California State Standards	Journey School Alignment	Remarks
Reading		
1.0 Word Analysis, Fluency and Systematic Vocabulary Development Students understand the basic features of reading. They select letter patterns and know how to translate them into spoken language by using phonics, syllabication and word parts. They apply this knowledge to achieve fluent oral and silent reading.	**1.0 As stated, in addition:** With word games during daily dictation, the students practice and review phonics and further develop decoding and encoding skills. Students use appropriate grammar, word choice and pacing while retelling stories. Both choral and partner reading are introduced. Students develop increasing fluency and comprehension in oral reading as well as in silent reading.	
Decoding and Word Recognition 1.1 Know and use complex word families when reading (e.g., -ight) to decode unfamiliar words. 1.2 Decode regular multisyllabic words. 1.3 Read aloud narrative and expository text fluently and accurately and with appropriate pacing, intonation, and expression.	**1.1-1.3 As stated, in addition:** Students continue to develop word recognition skills, word attack skills, comprehension, fluency, intonation and expression. This development is noted through oral (individual and choral) reading, and evaluated in specific written exercises. Students increasingly memorize sight words. Vocabulary development is interdisciplinary.	
Vocabulary and Concept Development 1.4 Use knowledge of antonyms, synonyms, homophones, and homographs to determine the meanings of words. 1.5 Demonstrate knowledge of levels of specificity among grade-appropriate words and explain the importance of these relations (e.g., dog/ mammal/ animal/ living things). 1.6 Use sentence and word context to find the meaning of unknown words. 1.7 Use a dictionary to learn the meaning and other features of unknown words. 1.8 Use knowledge of prefixes (e.g., un-, re-, pre-, bi-, mis-, dis-) and suffixes (e.g., -er, -est, -ful) to determine the meaning of words.	**1.4-1.8 As stated, in addition:** Through riddles and games, students are made aware of homographs and homophones and learn to discriminate their usage. Students exhibit increasing ability to decode and encode more complex word structures using phonics-based skills.	
2.0 Reading Comprehension Students read and understand grade-level appropriate material. They draw upon a variety of comprehension strategies as needed (e.g., generating and responding to essential questions, making predictions, comparing information from several sources). The selections in Recommended Readings in Literature, Kindergarten Through Eighth Grade illustrate the quality and complexity of the materials to be read by students. In addition: to their regular school reading, by grade four, students read one-half million words annually, including a good representation of grade level-appropriate narrative and expository text (e.g., classic and contemporary literature, magazines, newspapers, online information). In grade three, students make substantial progress toward this goal.	**2.0 As stated, in addition:** Students exhibit reading "approach" behaviors, i.e. excitement over reading periods, favorable comments, quick formation of reading groups, and reluctance to stop reading. Recreational reading is required and encouraged through oral book reports, and a Reading Book Log. Teacher guided discussions with individual students about their books take place. Weekly library visits, classroom books and teacher suggestions give students some choice in their own reading material. Class readers are read chorally, silently and in pairs.	

Structural Features of Informational Materials 2.1 Use titles, tables of contents, chapter heading, glossaries, and indexes to locate information in text.	**2.1 As stated.**	
Comprehension and Analysis of Grade-Level-Appropriate Text 2.2 Ask questions and support answers by connecting prior knowledge with literal information found in and inferred from, the text. 2.3 Demonstrate comprehension by identifying answers in text. 2.4 Recall major points in the text and make and modify predictions about forthcoming information. 2.5 Distinguish the main idea and supporting details in expository text. 2.6 Extract appropriate and significant information from the text, including problems and solutions. 2.7 Follow simple multiple-step written instructions (e.g., how to assemble a product or play a board game.	**2.2-2.6 As stated.** **2.7 As stated, in addition:** Students create their own instructions for the many class projects [e.g., how to build a tepee, an adobe house, a wooden playhouse, a time machine, a measuring instrument, etc.].	
3.0 Literary Response and Analysis Students read and respond to a wide variety of significant works of children's literature. They distinguish between the structural features of the text and literary terms or elements (e.g., theme, plot, setting, characters). The selections in Recommended Readings Literature, Kindergarten Through Grade Eight illustrate the quality and complexity of the materials to be read by students.	**3.0 As stated, in addition:** Students respond to literature from the Hebrew stories of the Old Testament. Students understand literary archetypes, recurring themes and plot developments.	
Structural Features of Literature 3.1 Distinguish common forms of literature (e.g., poetry, drama, fiction, nonfiction).	**3.1 As stated, in addition:** Students participate frequently in dramatizations and choral poetry reading.	
Narrative Analysis of Grade-Level-Appropriate Text 3.2 Comprehend basic plots of classic fairy tales, myths, folktales, legends, and fables from around the world. 3.3 Determine what characters are like by what they say or do and by how the author or illustrator portrays them. 3.4 Determine the underlying theme or author's message in fiction and nonfiction text. 3.5 Recognize the similarities of sounds in words and rhythmic patterns (e.g., alliteration, onomatcpoeia) in selection. 3.6 Identify the speaker or narrator in a selection.	**3.2- 3.3 As stated.** 3.4 Will be explored more fully in 4th grade. 3.5-3.6 As stated	
Writing	Students write every day. They write a rough draft for their main lesson book that is revised with help from the teacher. This revised edition is written into the main lesson book and portfolio as neatly as possible; it is judged upon its neatness as well as its content. The students complete main lesson books written in their own hand for every main lesson topic, (e.g.: Hebrew stories, Farming, American Indian Nations, Shelters, Clothing, Measurements of Time, Weight, Volume, and Spatial, etc.) These books not only allow the students to focus on their composition skills, but also on the practice of cursive writing and printing.	

1.0 Writing Strategies Students write clear and coherent sentences and paragraphs that develop a central idea. Their writing shows they consider the audience and purpose. Students progress through the stages of the writing process (e.g., prewriting, drafting, revising, editing successive versions).	**1.0 As stated, in addition:** Given a story orally, students write their own synopsis or help the teacher compose a synopsis of the story on the board. This is then copied into their own "textbooks". Students also generate simple letters, using appropriate openings and closures. Fluidity of writing at this stage is more important than technical expertise. Students are encouraged to write, and correction is provided in a manner designed not to interrupt the creative activity.	
Organization and Focus 1.1 Create a single paragraph: a. Develop a topic sentence. b. Include simple supporting facts and details.	**1.1 As stated.**	
Penmanship 1.2 Write legibly in cursive or joined italic, allowing margins and correct spacing between letters in a word and words in a sentence.	**1.2 As stated, in addition:** Students place writing within decorative borders and write evenly on unlined pages in their main lesson books.	
Research 1.3 Understand the structure and organization of various reference materials (e.g., dictionary, thesaurus, atlas, encyclopedia).	**1.3 As stated.**	
Evaluation and Revision 1.4 Revise drafts to improve the coherence and logical progression of ideas by using an established rubric.	**1.4 As stated, in addition:** Students are required to copy writing correctly from the chalkboard, to write from dictation and to write on their own. The teacher works with students to evaluate, edit and revise their own writing.	
2.0 Writing Applications (Genres and Their Characteristics) Students write compositions that describe and explain familiar objects, events, and experiences. Students writing demonstrate a command of standard American English and the drafting, research and organizational strategies outlined in Writing Standard 1.0.	**2.0 As stated, in addition:** Students practice handwriting daily through the creation of their own main lesson books. In addition, the students write their own compositions and keep a weekly journal with emphasis placed on sentence structure, grammar, punctuation, capitalization and spelling skills. After oral presentations, many compositions describe and explain the stories that were recited.	
Using the writing strategies of grade three outlined in Writing Standard 1.0, students: 2.1 Write narratives: a. Provide a context within which an action takes place. b. Include well-chosen details to develop the plot. c. Provide insight into why the selected incident is memorable. 2.2 Write descriptions that use concrete sensory details to present and support unified impressions of people, places, things or experiences. 2.3 Write personal and formal letters, thank-you notes, and invitations: a. Show awareness of the knowledge and interests of the audience and establish a purpose and context. b. Include the date, proper salutation, body, closing, and signature.	**2.1 As stated, in addition:** The students generate and organize ideas for writing; revise work by combining sentences, adding detail to support the content and clarifying when necessary to make the meaning clear to the reader. The students write letters to reinforce the form used in letter writing.	

Written and Oral English Language Conventions		
The standards for written and oral English language conventions have been placed between those for writing and for listening and speaking because these conventions are essential to both sets of skills.	Students actively participate in class discussions using clear and specific language to communicate ideas concerning the material being covered, such as: house building, farming and gardening. This demonstrates their verbal skills and understanding. Students listen responsively and respectfully to other's points of view [learning additional social skills]. Students use appropriate grammar, word choice and phrasing while retelling the story.	
1.0 Written and Oral English Language Conventions Students write and speak with a command of standard English conventions appropriate to this grade level.	**1.0 As stated, in addition:** Given oral presentations, students recall and retell the main sequence and details of the story on successive days. Stories are told every two to three days and are 15- to 20- minutes in length. Stories told daily are concluded in 2-3 day intervals.	
Sentence Structure 1.1 Understand and be able to use complete and correct declarative, interrogative, imperative, and exclamatory sentences in writing and speaking.	**1.1 As stated, in addition:** Through practice writing and dictations the students learn the difference between a simple statement, question, command and exclamation.	
Grammar 1.2 Identify subjects and verbs that are in agreement and identify and use pronouns, adjectives, compound words, and articles correctly in writing and speaking. 1.3 Identify and use past, present, and future verb tenses properly in writing and speaking. 1.4 Identify and use subjects and verbs correctly in speaking and writing simple sentences.	**1.2-1.4 As stated.**	
Punctuation 1.5 Punctuate dates, city and state, and titles of books correctly. 1.6 Use commas in dates, locations and addresses and for items in a series.	**1.5-1.6 As stated, in addition:** Given activities and games in large and small groups, students learn basic punctuation including initial capitalization, periods and question marks.	
Capitalization 1.7 Capitalize geographical names, holidays, historical periods, and special events correctly.	**1.7 As stated.**	
Spelling 1.8 Spell correctly one-syllable words that have blends, contractions, compounds, orthographic patterns (e.g., qu, consonant doubling, changing the ending of a word from –y to –ies when forming the plural), and common homophones (e.g., hair-hare). 1.9 Arrange words in alphabetic order.	**1.8 As stated, in addition:** Given class activities such as blackboard games and dictation, students develop simple spelling skills for sight words, basic reading vocabulary words and word families. The students also keep a "spelling word" book where spelling and phonics are practiced.	
Listening and Speaking		
1.0 Listening and Speaking Strategies Students listen critically and respond appropriately to oral communication. They speak in a manner that guides the listener to understand important ideas by using proper phrasing, pitch, and modulation.	**1.0 As stated, in addition:** Given oral recitation of poetry, verses and regular practice of play performances, students develop diction, vocal clarity and spoken expression. Students perform the verses and plays at informal recitals for other classes and formal presentations [e.g., assemblies, festivals, class play] throughout the year.	

Comprehension 1.1 Retell, paraphrase, and explain what has been said by a speaker. 1.2 Connect and relate prior experiences, insights, and ideas to those of a speaker. 1.3 Respond to questions with appropriate elaboration. 1.4 Identify the musical elements of literary language (e.g., rhymes, repeated sounds, instances of onomatopoeia).	**As Stated.**	
Organization and Delivery of Oral Communication 1.5 Organize ideas chronologically or around major points of information. 1.6 Provide a beginning, a middle, and an end, including concrete details that develop a central idea. 1.7 Use clear and specific vocabulary to communicate ideas and establish the tone. 1.8 Clarify and enhance oral presentations through the use of appropriate props (e.g., objects, pictures, charts). 1.9 Read prose and poetry aloud with fluency, rhythm, and pace, using appropriate intonation and vocal patterns to emphasize important passages of the text being read.	**1.5-1.9 As Stated.** Following oral presentations, students recall the main sequence and details of the story. Stories for the year include presentations from the Hebrew Bible and stories about farming, gardening, building, trades, and measurement Given an oral story, students are be able to independently and collaboratively write a synopsis of all, or part, of a story "on their own." Attention is paid to the inclusion of correct sequence of action and support with appropriate details. Given an oral presentation, students are required to identify and outline main ideas and supporting details. This is continued and expanded into the areas of expository, narrative and letter writing. Students are introduced to verbal dictations. Students are able to construct, orally dictated sentences with grade appropriate accuracy. These contain sight vocabulary as well as appropriate phonetically based spelling with word encoding tasks.	
Analysis and Evaluation of Oral and Media Communications 1.10 Compare ideas and points of view expressed in broadcast and print media. 1.11 Distinguish between the speaker's opinions and verifiable facts.	**1.10-1.11 As stated, in addition** Emphasis is on print media	
2.0 Speaking Applications (Genres and Their Characteristics) Students deliver brief recitations and oral presentations about familiar experiences or interests that are organized around a coherent thesis statement. Student speaking demonstrates a command of standard American English and the organizational and delivery strategies outlined in Listening and Speaking Standard 1.0.	**2.0 As Stated, in addition:** Given selected passages, students individually and chorally recite text with good articulation, meter, intonation and expression. Selected poems and passages are presented before audiences at assemblies. Oral class reports are presented on content in the social studies and science curriculum, [e.g., farming, gardening, building, trades, Native Americans, local history etc.]. Given tongue twisters and sequences designed to pronounce specific sounds, students individually, and in small groups, perform exercises with clear diction and intonation. Students identify and isolate specific sounds. Given oral practice and stage directions, students perform plays before an audience (one per year).	

Using the speaking strategies of grade three outlined in Listening and Speaking Standard 1.0, students: 2.1 Make brief narrative presentations: a. Provide a context for an incident that is the subject of the presentation. b. Provide insight into why the selected incident is memorable. c. Include well-chosen details to develop character, setting, and plot. 2.2 Plan and present dramatic interpretations of experiences, stories, poems, or plays with clear diction, pitch, tempo, and tone. 2.3 Make descriptive presentations that use concrete sensory details to set forth and support unified impressions of people, places, things, or experiences.	**2.1-2.3 As Stated, in addition:** Students participate in individual and group story telling, and poetry or other creative writing projects. These activities encourage individual expression and enjoyment; editing and technical expertise are not the main objectives.	

Grade Three

History-Social Science Content Standards

California State Standards	Journey School Alignment	Remarks
Continuity and Change		
Students in grade three learn more about our connections to the past and the ways in which particularly local, but also regional and national, government and traditions have developed and left their marks on current society, providing common memories. Emphasis is on the physical and cultural landscape of California, including the study of American Indians, the subsequent arrival of immigrants, and the impact they have had in forming the character of our contemporary society.	3rd grade history concerns migrations of people, spread of culture, and development of community. Students learn how historic communities have met basic needs for shelter, food, clothing, etc.. They learn how people established settlements, developed farming and crafts, practiced animal husbandry, cooked, and created numbers, standards and units to measure length, time, weight/mass and volume/capacity. Students learn methods of primitive construction. They describe, in their main-lesson book, how cultures acquired resources from the surrounding environment, and how they incorporated materials in construction of dwellings or farms. They gain (through field trips and other activities) a basic understanding of tenets of modern construction. As history is integrated with science and math, students discuss, write about, and illustrate common topics. For example, students cost and design a garden shed or simple structure, learn about foundation, framing and finishing, etc. This is consistent with the math curriculum. **Note**: The 3rd grade emphasizes the origin of civilization in a somewhat generic sense, such as the rise of Neolithic farm communities. This cultural abstraction is, nonetheless, compared to Native American settlements at standard 3.2. and is compared to other environmental regions discussed in science.	
3.1 Students describe the physical and human geography and use maps, tables, graphs, photographs, and charts to organize information about people, places, and environments in a spatial context. 1. Identify geographical features in their local region (e.g., deserts, mountains, valleys, hills, coastal areas, oceans, lakes). 2. Trace the ways in which people have used the resources of the local region and modified the physical environment (e.g., dam constructed upstream changed a river or coastline).	**3.1 As stated, in addition:** Students read and listen to stories about the ancient culture of the Hebrew people and the Middle East. They paint elements of that environment (mountains, rivers, flora and fauna), locating its tribes of people, etc. They study tables describing early writing and letters and other useful information. Cultural topics include patterns of early settlement, care of animals, pottery and textiles, division of time, weights and standards, etc., and much of this is elaborated in math and science studies.	

3.2 Students describe the American Indian nations in their local region long ago and in the recent past. 1. Describe national identities, religious beliefs, customs, and various folklore traditions. 2. Discuss the ways in which physical geography, including climate, influenced how the local Indian nations adapted to their natural environment (e.g., how they obtained food, clothing, tools). 3. Describe the economy and systems of government, particularly those with tribal constitutions, and their relationship to federal and state governments. 4. Discuss the interaction of new settlers with the already established Indians of the region.	**3.2.1-.2 As stated, in addition:** By comparison, students learn how Native Americans used natural resources to build dwellings/structures adapted to regional climates and physical environment, (teepees of plains dwellers, cliff-dwellings, pueblo and maize-farming communities, etc). They learn how physical geography influenced crop selection, tools, and hunting. The teacher instructs students in folklore, tradition, ritual and custom that regulated community life. Note: The principal focus of 4th grade history will be California History, so specifics of local Native American culture and the impact of missions and settlement will be discussed at that time.	
3.3 Students draw from historical and community resources to organize the sequence of local historical events and describe how each period of settlement left its mark on the land. 1. Research the explorers who visited here, the newcomers who settled here, and the people who continue to come to the region, including their cultural and religious traditions and contributions. 2. Describe the economies established by settlers and their influence on the present-day economy, with emphasis on the importance of private property and entrepreneurship. 3. Trace why their community was established, how individuals and families contributed to its founding and development, and how the community has changed over time, drawing on maps, photographs, oral histories, letters, newspapers, and other primary sources.	**3.3 In part - See notes above.** In parallel with their science curriculum, students compare other world environmental regions for types of dwellings, cultivation of land, patterns of trade, and customs underlying community. Again, such comparisons are made in order to develop student understanding of, and sensitivity for, the universal needs of Humanity.	

3.4 Students understand the role of rules and laws in our daily lives and the basic structure of the U.S. government. 1. Determine the reasons for rules, laws, and the U.S. Constitution; the role of citizenship in the promotion of rules and laws; and the consequences for people who violate rules and laws. 2. Discuss the importance of public virtue and the role of citizens, including how to participate in a classroom, in the community, and in civic life. 3. Know the histories of important local and national landmarks, symbols, and essential documents that create a sense of community among citizens and exemplify cherished ideals (e.g., U.S. flag, bald eagle, Statue of Liberty, U.S. Constitution, Declaration of Independence, U.S. Capitol). 4. Understand the three branches of government, with an emphasis on local government. 5. Describe the ways in which California, the other states, and sovereign American Indian tribes contribute to the making of our nation and participate in the federal system of government. 6. Describe the lives of American heroes who took risks to secure our freedoms (e.g., Anne Hutchinson, Benjamin Franklin, Thomas Jefferson, Abraham Lincoln, Frederick Douglas, Harriet Tubman, Martin Luther King, Jr.).	**3.4 in part:** Students learn of government in very concrete terms. They learn how national law applies in their own community, classroom and school. They learn how their school community balances interests with a 3-fold division of executive board, teachers, and parents. And this may be used to model the 3 branches of government. Students learn how modern communities are strengthened by National Holidays and Observances. They learn of heroes/patriots in context of *National Birthdays* (Jefferson, Lincoln, Washington) and *Martin Luther King Day*; at that time, their ideals concerning the US Constitution, Bill of Rights, and Declaration of Independence are introduced into the lesson. Students learn the importance of symbols with *Thanksgiving Day*, *Memorial Day*, *Flag Day*, etc.; and they learn of citizen responsibility on *Election Day*. Frederick Douglas and Harriet Tubman are recognized during the celebration of *Black History month*. And all of this culminates when, for summer reading, students consider the Ideal of Independence associated with the *4th of July*.	
3.5 Students demonstrate basic economic reasoning skills and an understanding of the economy of the local region. 1. Describe the ways in which local producers have used and are using natural resources, human resources, and capital resources to produce goods and services in the past and the present. 2. Understand that some goods are made locally, some elsewhere in the United States, and some abroad. 3. Understand that individual economic choices involve trade-offs and the evaluation of benefits and costs. 4. Discuss the relationship of students' *work* in school and personal human capital.	**3.5 As stated, in addition:** Students develop basic economic understanding by discussing production and manufacture of clothing (e.g., raising silk worms, sheep shearing, spinning, dyeing, weaving into cloth, making handcrafts.) As possible, they visit local farms and gardens to observe care of animals, land cultivation, sheds and tools. They prepare and plant their own garden, and grow food products for distribution at school. They plan, and cost materials for the building of a small structure. Students discuss, write and illustrate essays about farming/gardening and animal husbandry. In their main lesson *farming and gardening* block, students learn how crops are grown locally but consumed elsewhere. They study how products manufactured locally may receive wide distribution.	

Grade Three

Mathematics Content Standards

California State Standards	Journey School Alignment	Remarks
By the end of grade three, students deepen their understanding of place value and their understanding of and skill with addition, subtraction, multiplication, and division of whole numbers. Students estimate, measure, and describe objects in space. They use patterns to help solve problems. They represent number relationships and conduct simple probability experiments.	**As stated, in addition:** Students practice mental arithmetic daily for 5 to 10 minutes at the start of the day. They practice arithmetical operations 3 days a week, 50 minutes each day. A main lesson block World of Measure is a 9-week study, 2 hrs. per day, 5 days per week. All mathematical topics are fully integrated with applications in science and history.	
Number Sense		
1.0 Students understand the place value of whole numbers: 1.1 Count, read, and write whole numbers to 10,000. 1.2 Compare and order whole numbers to 10,000. 1.3 Identify the place value for each digit in numbers to 10,000. 1.4 Round off numbers to 10,000 to the nearest ten, hundred, and thousand. 1.5 Use expanded notation to represent numbers (e.g., 3,206 = 3,000 + 200 + 6).	**1.0-1.5 As stated, in addition:** Students understand relationship between place values in the base ten systems.	
2.0 Students calculate and solve problems involving addition, subtraction, multiplication, and division: 2.1 Find the sum or difference of two whole numbers between 0 and 10,000. 2.2 Memorize to automaticity the multiplication table for numbers between 1 and 10. 2.3 Use the inverse relationship of multiplication and division to compute and check results. 2.4 Solve simple problems involving multiplication of multi digit numbers by one-digit numbers (3,671 x 3 = __). 2.5 Solve division problems in which a multidigit number is evenly divided by a one-digit number (135 ÷ 5 = __). 2.6 Understand the special properties of 0 and 1 in multiplication and division. 2.7 Determine the unit cost when given the total cost and number of units. 2.8 Solve problems that require two or more of the skills mentioned above.	**2.0-2.8 As stated, in addition:** Students demonstrate ability to copy or write orally dictated problems involving triple digit integers in vertical format. Numbers are in proper alignment, process signs are appropriately placed. Students demonstrate grade-appropriate skills of borrowing, carrying (regrouping) numbers in addition, and the subtraction of three and four digit addends or subtrahends. Students practice multiplication with double and triple digit operations; and long division with single-digit divisors, double- and triple-digit dividends and remainders. Students memorize multiplication tables for numbers 2 through 12 and they use "skip counting" to recite rhythmically the "tables". Students learn to check their own and other students' solutions by using inverse processes [e.g. checking addition with subtraction, or checking division with multiplication, or vice versa]. Unit costs are applied when costing construction materials.	

3.0 Students understand the relationship between whole numbers, simple fractions, and decimals: 3.1 Compare fractions represented by drawings or concrete materials to show equivalency and to add and subtract simple fractions in context (e.g., 1/2 of a pizza is the same amount as 2/4 of another pizza that is the same size; show that 3/8 is larger than 1/4). 3.2 Add and subtract simple fractions (e.g., determine that 1/8 + 3/8 is the same as 1/2). 3.3 Solve problems involving addition, subtraction, multiplication, and division of money amounts in decimal notation and multiply and divide money amounts in decimal notation by using whole-number multipliers and divisors. 3.4 Know and understand that fractions and decimals are two different representations of the same concept (e.g., 50 cents is 1/2 of a dollar, 75 cents is 3/4 of a dollar).	**3.0-3.4 As stated, in addition:** Students apply simple fractions and decimals to practical real-life situations (house building, time-telling, recipe cooking, bake sales, lemonade stands, handcrafts). In a main lesson block, World of Measure, students solve money problems using the four processes, and apply decimals as money transactions. Students add and subtract fractions and decimal measurements while using rulers and tape measures to design a structure.	
Algebra and Functions		
1.0 Students select appropriate symbols, operations, and properties to represent, describe, simplify, and solve simple number relationships: 1.1 Represent relationships of quantities in the form of mathematical expressions, equations, or inequalities. 1.2 Solve problems involving numeric equations or inequalities. 1.3 Select appropriate operational and relational symbols to make an expression true (e.g., if 4 __ 3 = 12, what operational symbol goes in the blank?). 1.4 Express simple unit conversions in symbolic form (e.g., __ inches = __ feet x 12). 1.5 Recognize and use the commutative and associative properties of multiplication (e.g., if 5 x 7 = 35, then what is 7 x 5? and if 5 x 7 x 3 = 105, then what is 7 x 3 x 5?).	**1.0-1.5 As stated, in addition:** Students learn principles of equality (equals added to equals are equal, etc.) They learn that multiplication and division are inverse relationships (e.g., 3 x 4 = 12; 12 divided by 4 equals 3). They recognize and apply various representations of number relationships, in measurements of time, distance, line, weight, volume, area, weight and money. They work conversions in these applications. Commutative and associative laws are practiced in mental math, daily recitation and written work.	
2.0 Students represent simple functional relationships: 2.1 Solve simple problems involving a functional relationship between two quantities (e.g., find the total cost of multiple items given the cost per unit). 2.2 Extend and recognize a linear pattern by its rules (e.g., the number of legs on a given number of horses may be calculated by counting by 4s or by multiplying the number of horses by 4).	**2.0-2.2 As stated, in addition:** In a study of farming and housing, students are required to cost the price of a garden or building project using unit prices, subtotal, and final tally of all expenses expressed in dollars and cents. This simple functional exercise applies all of arithmetic skills.	

Measurement and Geometry		
1.0 Students choose and use appropriate units and measurement tools to quantify the properties of objects: 1.1 Choose the appropriate tools and units (metric and U.S.) and estimate and measure the length, liquid volume, and weight/mass of given objects. 1.2 Estimate or determine the area and volume of solid figures by covering them with squares or by counting the number of cubes that would fill them. 1.3 Find the perimeter of a polygon with integer sides. 1.4 Carry out simple unit conversions within a system of measurement (e.g., centimeters and meters, hours and minutes).	**1.0-1.4 As stated, in addition:** In the main lesson block World of Measure, students learn English and metric units of length, time, liquid and dry measure, weight/mass, and volume/capacity. They memorize equivalences (12 in =1 foot, 16 oz = 1lb), and apply this knowledge to solve oral and written measurement problems. In practice, students weigh and measure many objects; they determine perimeters, and find the volumes of liquids held in various containers, etc. Students learn the history of measurement of time. They make devices such as a sundial, water clock, or sand timer. The origins of other measurements techniques are presented orally and practically.	
2.0 Students represent simple functional relationships: 2.1 Identify, describe, and classify polygons (including pentagons, hexagons, and octagons). 2.2 Identify attributes of triangles (e.g., two equal sides for the isosceles triangle, three equal sides for the equilateral triangle, right angle for the right triangle). 2.3 Identify attributes of quadrilaterals (e.g., parallel sides for the parallelogram, right angles for the rectangle, equal sides and right angles for the square). 2.4 Identify right angles in geometric figures or in appropriate objects and determine whether other angles are greater or less than a right angle. 2.5 Identify, describe, and classify common three-dimensional geometric objects (e.g., cube, rectangular solid, sphere, prism, pyramid, cone, cylinder). 2.6 Identify common solid objects that are the components needed to make a more complex solid object.	**2.0-2.6 In part as:** Students' study of geometry is integrated with science as students design and plant a garden, or build a shed. Angles and shapes are discussed in a context of construction, garden layout, and measurable planters; variable angles are found in relation to the daily and seasonal arcs of sun and moon, also students identify many angles they can make with their bodies. Plane geometric figures are identified in architectural structures (e.g. triangles in the pitch and framing of roofs, rectangles in walls, pyramids in roofs, rectangular solids in construction materials, etc). This inquiry is elaborated as students identify more unusual shapes in the design of buildings. Origami is also used to describe and see geometric relationships.	

Statistics, Data Analysis, and Probability		
1.0 Students conduct simple probability experiments by determining the number of possible outcomes and make simple predictions: 1.1 Identify whether common events are certain, likely, unlikely, or improbable. 1.2 Record the possible outcomes for a simple event (e.g., tossing a coin) and systematically keep track of the outcomes when the event is repeated many times. 1.3 Summarize and display the results of probability experiments in a clear and organized way (e.g., use a bar graph or a line plot). 1.4 Use the results of probability experiments to predict future events (e.g., use a line plot to predict the temperature forecast for the next day).	**1.0-1.4 As stated, in addition:** Students use curricular content for data and trend analysis and prediction. For example, when students study farming and gardening, they learn that farmers consider weather patterns to predict a coming wet season, and to prepare for wind and storms. Students collect and graph weather data (rainfall, temperature, hours of daylight), and note the length of growing seasons. Similarly, when students bake bread, they learn they must preheat the oven to a certain temperature, and they predict how long this will take.	
Mathematical Reasoning		
1.0 Students make decisions about how to approach problems: 1.1 Analyze problems by identifying relationships, distinguishing relevant from irrelevant information, sequencing and prioritizing information, and observing patterns. 1.2 Determine when and how to break a problem into simpler parts.	**1.0-1.2 As stated.** Relevancy is emphasized in the curriculum since (from Grade 1) students work practical problems (e.g., house building, cooking, baking, handcraft, etc.) from stories heard in class. They look for contextual meaning (patterns); they consider problem-solving strategies, select appropriate operations, and apply unit conversions and estimation.	
2.0 Students use strategies, skills, and concepts in finding solutions: 2.1 Use estimation to verify the reasonableness of calculated results. 2.2 Apply strategies and results from simpler problems to more complex problems. 2.3 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning. 2.4 Express the solution clearly and logically by using the appropriate mathematical notation and terms and clear language; support solutions with evidence in both verbal and symbolic work. 2.5 Indicate the relative advantages of exact and approximate solutions to problems and give answers to a specified degree of accuracy. 2.6 Make precise calculations and check the validity of the results from the context of the problem.	**2.0-2.3 and 2.5-2.6 As stated, in addition:** Students are given opportunity to check validity of their calculations and see what happens if a mistake were made in calculation. It is found that a model of a building cannot be assembled from imprecise measurement; or the model actually collapses.	
3.0 Students move beyond a particular problem by generalizing to other situations: 3.1 Evaluate the reasonableness of the solution in the context of the original situation. 3.2 Note the method of deriving the solution and demonstrate a conceptual understanding of the derivation by solving similar problems. 3.3 Develop generalizations of the results obtained and apply them in other circumstances.	**3.0-3.3 As stated, in addition:** In the Waldorf curriculum students always move from particular problems to more abstract situations in which they apply the same (or different) kinds of reasoning. They constantly apply what they learn in very concrete situations.	

Grade Three

Science Content Standards

California State Standards	Journey School Alignment	Remarks
Physical Sciences		
1. Energy and matter have multiple forms and can be changed from one form to another. As a basis for understanding this concept: a. Students know energy comes from the Sun to Earth in the form of light. b. Students know sources of stored energy take many forms, such as food, fuel, and batteries. c. Students know machines and living things convert stored energy to motion and heat. d. Students know energy can be carried from one place to another by waves, such as water waves and sound waves, by electric current, and by moving objects. e. Students know matter has three forms: solid, liquid, and gas. f. Students know evaporation and melting are changes that occur when the objects are heated. g. Students know that when two or more substances are combined, a new substance may be formed with properties that are different from those of the original materials. h. Students know all matter is made of small particles called atoms, too small to see with the naked eye. i. Students know people once thought that earth, wind, fire, and water were the basic elements that made up all matter. Science experiments show that there are more than 100 different types of atoms, which are presented on the periodic table of the elements.	**1.0 As stated, in addition:** The primary topic of 3rd Grade science is the transformation of energy and matter in naturally occurring cycles. Students experience these transformations in practical activities, notably gardening and cooking/baking. Students also observe cycles of nature, including sun/earth/moon cycles, weather, and soil creation. Solar energy is studied in relation to farming and gardening. Students observe how sunlight is transformed into warmth, causing the melting of ice and sprouting of plants. Students learn of changes of state: condensation/evaporation, freezing/melting, and sublimation/deposition (least common). And they learn how the ancients built a science premised on transformation among elements, termed earth, air, fire and water. They learn that such cyclic processes are also at work in their own metabolism: energy stored in food is released for activity by digestion. Similarly, in the life of the community, energy stored in fuel is released by combustion. This cyclic passage of energy is presented pictorially and presciently as wave motion. Discussion of soil composting leads to discussion of composition of matter. Decomposition and synthesis are observed, as compost becomes soil. And in this context students learn of molecules, chemical elements and atoms.	
2. Light has a source and travels in a direction. As a basis for understanding this concept: a. Students know sunlight can be blocked to create shadows. b. Students know light is reflected from mirrors and other surfaces. c. Students know the color of light striking an object affects the way the object is seen. d. Students know an object is seen when light traveling from the object enters the eye.	**2.0 As stated, in addition:** Students experience light, shadow, and color in watercolor painting and shaded drawing. They observe by study of shadow that light is transmitted in straight lines. And in their art, they study surface reflections of light and color, and work with the subtractive primary colors. Students create sundials and study the shadows as time progresses.	

Life Sciences		
3. Adaptations in physical structure or behavior may improve an organism's chance for survival. As a basis for understanding this concept: a. Students know plants and animals have structures that serve different functions in growth, survival, and reproduction. b. Students know examples of diverse life forms in different environments, such as oceans, deserts, tundra, forests, grasslands, and wetlands. c. Students know living things cause changes in the environment in which they live: some of these changes are detrimental to the organism or other organisms, and some are beneficial. d. Students know when the environment changes, some plants and animals survive and reproduce; others die or move to new locations. e. Students know that some kinds of organisms that once lived on Earth have completely disappeared and that some of those resembled others that are alive today.	**3.0 As stated, in addition:** Students take nature walks, observing the altitude of the sun, and seasonal changes. They observe plant and animal life and learn of varied symbiotic relationships. As students study cultural history of dwelling, food, and farming methods around the world, they also become acquainted with the primary environments (e.g., tundra, savannah, plains and grasslands, deserts, forests, wetlands, shorelines, etc.). The teacher describes plants and animals found in such environments, and gives some history of extinct creatures that once lived there (e.g. the La Brea Tar Pits). In their study of compost, students observe the microbiological activity of organisms transforming the soil. Students hear stories of animal adaptations (e.g. earthworms and soils/composting). They study relationships among plants, and how plants return nutrients to a soil (which is why we grow certain plants around other plants and rotate crops.) Students also learn of stresses detrimental to a sustainable environment, and are made aware of what they can do to improve the environment.	
Earth Sciences		
4. Objects in the sky move in regular and predictable patterns. As a basis for under-standing this concept: a. Students know the patterns of stars stay the same, although they appear to move across the sky nightly, and different stars can be seen in different seasons. b. Students know the way in which the Moon's appearance changes during the four-week lunar cycle. c. Students know telescopes magnify the appearance of some distant objects in the sky, including the Moon and the planets. The number of stars that can be seen through telescopes is dramatically greater than the number that can be seen by the unaided eye. d. Students know that Earth is one of several planets that orbit the Sun and that the Moon orbits Earth. e. Students know the position of the Sun in the sky changes during the course of the day and from season to season.	**4.0 As stated, in addition:** Students are introduced to astronomical phenomena in context of farming and gardening. They learn that the orbit and tilt of the earth determines seasons; that solstice and equinoctial phenomena register time of year; that the moon's cycle affects tides of water; and rotation of the earth determines time of day. Against this backdrop of cycles, students learn proper timing for planting and harvesting, and may learn the traditional use of almanac for time-to-plant root, stem, and leaf crops. (The cycle of the moon is also studied in the Measurement Block.) Students study the position of the sun when they build a sundial; they recognize that time was historically measured by movement of the sun and they learn of solar and lunar calendars. During an evening, they view the moon, planets, or nebulae.	

Investigation and Experimentation		
5. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will: a. Repeat observations to improve accuracy and know that the results of similar scientific investigations seldom turn out exactly the same because of differences in the things being investigated, methods being used, or uncertainty in the observation. b. Differentiate evidence from opinion and know that scientists do not rely on claims or conclusions unless they are backed by observations that can be confirmed. c. Use numerical data in describing and comparing objects, events, and measurements. d. Predict the outcome of a simple investigation and compare the result with the prediction. e. Collect data in an investigation and analyze those data to develop a logical conclusion.	**5.0 As stated, in addition:** Experimentation and investigation is conducted in a concrete practical way through work in a farm/garden environment. Predictions, plant experiments, observations, data collection and report writing is part of the practical study of farming and gardening. Experimentation and investigation is explored as the students are creating a whole farm environment recognizing the importance of planting and harvesting at particular times of the year to get the highest yield. The most successful organization includes the use of animals and understanding the weather patterns so that they will be able to predict the outcome of the planting season. Learning will be done in a very practical way. They will collect data as it is stipulates in #e. They will be learning about this in theme studies where they will be creating their own portfolio and recording the data that they collect.	