Third Grade

English Language Arts

Third grade students learn to read narrative and expository texts fluently and expressively with appropriate pacing, intonation, and expression. They build on word analysis strategies to fluently decode regular multi-syllable words and words with common prefixes and suffixes.

Third grade students assume increasing academic responsibility, monitoring their understanding of what they read. They learn to ask questions and determine answers by connecting prior knowledge with literal and inferential information they encounter in text. Students also learn to distinguish between main ideas and supporting details in text.

Students learn to analyze traits of characters as they examine what characters say and do, as well as how authors portray characters. Literature selections provide students with practice as they identify the speaker or narrator of texts to determine underlying themes and authors' messages. In written language, students learn to group ideas into cohesive, focused, logically sequenced paragraphs. Third grade students create narratives, write descriptions and learn to write a factual 5 paragraph report, a fairy tale, a tall tale, a simulated pioneer journal, and various forms of poetry.

Essential Questions:

- How do you connect what you read with the world around you?
- How do reading strategies help you comprehend the text?
- What is good writing and how do you know?

Learning Outcomes:

1. Students will be able to apply understanding of story elements and draw upon a variety of comprehension strategies to read, interpret, and respond to significant works of children's literature.
2. Students will be able to use phonics, syllabication, and word parts to achieve fluency in oral and silent reading.
3. Students will distinguish their own point of view from that of the narrator or those of the characters.
4. Students will be able to progress through the stages of the writing process in order to write clear and coherent sentences and paragraphs about a central idea. They will incorporate rich description and details to support the main idea and keep in mind the audience and purpose.
5. Students will be able to listen critically and respond appropriately to oral communication.

Texts:
Fountas and Pinnell - Guided Reading Model
Spelling Workout D - Pearson
Spelling Workout E - Pearson
Grammar & Punctuation - Evan Moor
Building Language - Michael Clay Thompson

Math

Third Grade Math

Third grade students expand their understanding of place value by ordering, comparing, and rounding whole numbers through millions. They develop increasing sophistication in their understanding of decimals and fractions, learn to identify sequence, and compare decimals. They learn to factor whole numbers up to 144. Third grade students learn to solve multi-digit multiplication and division calculations and simple algebraic expressions.

In geometry, students learn to demonstrate an understanding of plane and solid geometric objects, describe and represent geometric solids, and determine the number and shape of faces, edges and vertices. They also learn to understand and use formulas to solve problems involving perimeter, area, and volume. Students learn to measure in millimeters, centimeters, and inches.

Third grade math instruction focuses on students' application of skills learned to real-life problem solving. Students develop increasing fluency and confidence as they apply strategies, skills and concepts to solve, communicate, and justify their solutions for increasingly complex, multi-step problems.

Essential Questions:

- How do we communicate mathematical ideas by solving multi-step problems?
- When and why should we estimate?
- How are all mathematical operations related?
- Why is place value important?
- What do good problem solvers do, especially when they get stuck?

Learning Outcomes:

1. Students can determine how whole numbers and decimals relate to simple fractions, recognizing place value.
2. Students will understand addition, subtraction, multiplication, and division and know how to factor small whole numbers.
3. Students will understand perimeter, area, and volume and demonstrate the understanding of plane and solid geometric objects.

4. Students can synthesize word problems by breaking them into smaller parts and using various strategies.
5. Students will be able to choose and use appropriate units and measurement tools to quantify the properties of objects.
6. Students will be able to calculate and solve problems involving addition, subtraction, multiplication, and division.

Text: *Math in Focus - Singapore Math: Level 3*

Level 4 Math

Learning Outcomes:

Numbers Through Millions

- ➢ Recognizes, writes, orders & compares numbers up to nine digits
- ➢ Able to compare and order whole numbers by rounding through a million
- ➢ Writes numbers in expanded notation

Addition and Subtraction

- ➢ Estimates sums and differences
- ➢ Applies addition and subtraction properties
- ➢ Evaluates expressions using parenthesis
- ➢ Solves equations and equalities

Multiplication and Division

- ➢ Relates multiplication and division
- ➢ Divides with remainders
- ➢ Evaluates expressions using all four operations
- ➢ Writes equations by comparing expressions
- ➢ Able to recall with automaticity multiplication and division facts up to 12

Algebra and Functions

- ➢ Writes and evaluates expressions containing variables
- ➢ Uses function tables

- ➢ Writes function rules using variables
- ➢ Solves multiplication problems involving multiplying multiple digit numbers (multiplying a 3 digit number by a two digit number)
- ➢ Estimating products by rounding factors
- ➢ Using facts and patterns to multiply mentally

Division and Number Theory

- ➢ Solves division problems involving multi-digit numbers
- ➢ Able to find quotients with and without remainders
- ➢ Uses facts and patterns to divide mentally
- ➢ Able to find factors of numbers to 50
- ➢ Determines whether a number is prime or composite
- ➢ Determines prime factors of composite numbers

Fractions

- ➢ understanding equal parts
- ➢ fractional parts of figures & sets
- ➢ Equivalent, comparing and simplifying fractions
- ➢ Renaming mixed numbers
- ➢ Addition, subtraction, multiplication and division of fractions (primary goal)
- ➢ Factorization
- ➢ Renaming fractions as decimals

Measurement & Negative Numbers

- ➢ When you convert larger units to smaller units, you multiply. When you convert smaller units to larger units, you divide.
- ➢ For every positive number, there is an opposite negative number.

Decimals

- ➢ The relationship between fractions & decimals
- ➢ Comparing & ordering decimals

- ➢ Addition & subtraction of decimals
- ➢ Estimating decimals

Graphs & Algebra

- ➢ Students use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.
- ➢ Graphing functions & equations
- ➢ Coordinate grids

Statistics & Probability

- ➢ Use of line plots, coordinate graphs, tables, and charts to display and organize data
- ➢ Mean, median, mode & range
- ➢ Making predictions & outcomes with probability

Geometry & Measurement

- ➢ Define & classify plane figures. Describe and model solid figures by relating them to plane figures.
- ➢ Make drawing, measure, and use formulas to show how perimeter and area relate.

Text: *Math in Focus - Singapore Math: Level 4*

Level 5 Math

Math Level 5 covers concepts including number theory and fractions, equivalence in fractions and decimals, algebra, adding and subtracting fractions and mixed numbers, multiplying and dividing fractions, operations with decimals, data and graphs, geometry, measurement, percentages, integers, and coordinate planes.

The goal is to provide a safe learning environment where every student feels comfortable to participate and ask questions. Students will be guided through developing good strategies for study habits, note taking skills, and computation. Curriculum will be enriched beyond the basic scope and sequence to encourage students to develop a better understanding of the "big picture."

Essential Questions:

How do we translate written problems into numbers and symbols and vice-versa?

How can numbers be expressed in a variety of ways including fractions, decimals, percentages, equations and graphs?

Why is mastery of basic mathematical actions critical to future understanding of more advanced concepts?

Learning Outcomes:

Number Theory and Fractions

- Writes any number as a product of its prime factors
- Uses exponents to show multiples of a factor
- Identifies fractions and mixed numbers as points on a number line
- Renames fractions as mixed numbers to show simplest form

Equivalence between Fractions and Decimals

- Recognizes the relationship between place value in numbers and decimals and powers of 10
- Understands that numbers can be represented in the forms of fractions and decimals

Algebra

- Uses variables to represent potential solutions of problems
- Uses the Distributive, Commutative, Associative, Identity, and Equality Properties to solve equations

Add and Subtract Fractions and Mixed Numbers

- Adds fractions using equivalency to make common denominators
- Regroups as needed when adding and subtracting mixed numbers

Multiply and Divide Fractions

- Realizes that the product of two fractions results in a number of less value than either fraction
- Recognizes that division is another way of writing multiplication and applies this to rewrite division problems with fractions as multiplication problems

Operations with Decimals

- Understands that a decimal is the same as a fraction with a denominator of a power of 10
- Adds and subtracts decimals like whole numbers by lining up the decimal points
- Multiplies and divides decimals like whole numbers and places decimal point correctly in the resulting answer

Data and Graphs

- Uses a letter to represent an unknown number
- Writes and evaluates simple algebraic expressions in one variable by substitution
- Identifies and graphs ordered pairs in the four quadrants of the coordinate plane
- Solves problems involving linear functions with integer values; writes the equation; and graphs the resulting ordered pairs of integers on a grid.
- Identifies ordered pairs of data from a graph and interprets the meaning of the data in terms of the situation depicted by the graph
- Knows how to write ordered pairs correctly

Geometry and Measurement

- Knows that the sum of the angles of any triangle is 180 degrees and the sum of the angles of any quadrilateral is 360 degrees and uses this information to solve problems
- Measures, identifies, and draws angles, perpendicular and parallel lines, rectangles, and triangles by using appropriate tools
- Derives and uses the formula for the area of a triangle and of a parallelogram by comparing each with the formula for the area of a rectangle
- Constructs a cube and a rectangular box from two-dimensional patterns and uses these patterns to compute the surface area for these objects
- Understands the concept of volume and uses the appropriate units in common measuring systems to compute the volume of rectangular solids

Percent

- Interprets percentages as a part of a hundred
- Finds decimal and percent equivalents for common fractions and explains why they represent the same value
- Computes a given percent of a whole number
- Identifies and represents on a number line decimals, fractions, mixed numbers, and positive and negative integers
- Adds, subtracts, multiplies, and divides with decimals
- Uses percentages and fractions to analyze and compare data sets of different sizes

Integers

- Adds with negative integers and subtracts positive integers from negative integers; verifies the reasonableness of the results
- Solves problems involving linear functions with integer values; writes the equation; and graphs the resulting ordered pairs of integers on a grid

Coordinate Plane

- Graphs ordered pairs and functions in the coordinate plane
- Completes a table of values for a given function, and chooses an equation for a given function table
- Graphs formulas and linear equations, and uses graphs to solve problems
- Writes equations for linear functions

Text: *Math in Focus - Singapore Math: Level 5*

Level 6 Math

Math students study the following topics:

- Operations with fractions and decimals
- Operations with integers with the goal of gaining automaticity
- Write and simplify expressions and solve one and two step equations with applications
- Simplify ratios and unit rates
- Write and solve proportions algebraically
- Percent/fraction/decimal equivalencies
- Percent markup and discount applications
- Collect, organize, and analyze data
- Identify geometric figures based on angle relationships
- Use information to construct triangles and quadrilaterals
- Apply algebra to formulas of polygons, circles and solids – perimeter, area, circumference, and surface area
- Coordinate geometry – graphing points, linear equations, and functions

A sample of enrichment topics and applications in Level 6 math may include:

- Problem solving: California Math League (CML)
- Problem solving: Math Olympiads for Elementary and Middle School (MOEMS)
- Mathematician Investigation
- Constructions of solids

Essential Questions:

- How do we translate verbal ideas to the language of mathematics?
- What are the different ways of communicating mathematics with clarity?
- How is balance relevant to mathematics?

Learning Outcomes:

- Students learn essential vocabulary and communicate using mathematical rhetoric.
- Students develop an appreciation for number systems and will be able to classify types of numbers in the real and imaginary number systems.
- Students develop fluency of operations with fractions, decimals, integers, and percent/fraction/decimal equivalencies.
- Students make connections between mathematical ideas, unknowns, and real world applications.
- Students practice basic algebraic concepts of writing, evaluating, and solving expressions and equations.
- Students exercise deductive reasoning, critical thinking, and flexible thinking to apply core concepts to word problems and new mathematical experiences.

Text: *Big Ideas: Course 1 Advanced*

Social Studies

Third grade students study the regions of California and examine the social, cultural, and economic life and interactions among people of California from Native Americans, explorers of California, to the Spanish missions, the Mexican rancho periods, the pioneers, and the Gold Rush era. Third grade students continue their study of geography, as they learn to use maps, tables, and graphs. Students draw from historical resources to organize the sequence of historical events, as they study how each period of settlement left its mark on California.

Essential Questions:

- How has life changed for people over time?
- How does physical geography affect the movement of people and their way of life?
- How does where we live affect how we live?
- How can various cultural groups have an impact on the development of a community?

Learning Outcomes:

1. Students will be able to determine ways in which physical geography and climate influence how people, from California Native Americans through people today, adapt to their natural environment.
2. Students demonstrate map skills by locating, labeling, and comparing and contrasting locations of Native American places and environments.
3. Students identify natural resources and think critically about how to preserve and protect our earth.
4. Students will be able to relate how California communities have changed from the time of explorers through today and how each period of settlement left its mark on the land.
5. Students will be able to use maps, tables, graphs, and charts to organize information about people, places, and environments.
6. Students will be able to locate California in North America and the world and relate how its location and physical features have influenced the growth and development of the state.
7. Students will describe the social, political, cultural, and economic life and interactions among groups of people who have visited California, including Native Americans, explorers, and settlers, and describe the physical challenges they faced in getting to and/or settling California.
8. Students will be able to explain the economic, social, and political life in California from the establishment of the Bear Flag Republic through the Mexican-American War, the Gold Rush, and the granting of statehood.

9. Students explain how California became an agricultural and industrial power, tracing important economic trends, and political and cultural developments since the 1850s.

Texts: Interactive Textbook: *Our California* - History - Social Science for California

California Studies Weekly Newspaper

Science

Learning Outcomes:

1. Students will know the charges on subatomic particles (protons, neutrons and electrons).
2. Students will know what the atomic number and the atomic mass of an element represent.
3. Students will be familiar with more than 25 common elements and their typical roles in our bodies and in other materials (including oxygen, nitrogen, carbon, hydrogen, calcium).
4. Students will know a pH indicator identifies whether a substance is acid, base or neutral.
5. Students will be able to identify polar and nonpolar substances.
6. Students will be able to identify polymers and crosslinking substances ("bridge-formers").
7. Students will know the poles on a magnet.
8. Students will recognize changes that represent a chemical reaction.
9. Students will write a biography report of a scientist.
10. Students will know higher pressure moves towards areas of lower pressure.
11. Students will understand the concept of density.
12. Students will know the three states of matter (gas, liquid, solid).
13. Students will be able to explain Bernoulli's Principle.
14. Students will understand the concept of effervescence.
15. Students will know heated gases expand and cooled gases contract.
16. Students will know the major bones in the human body.
17. Students will be able to identify the rodent bones found in an owl pellet.
18. Students will understand the concepts of food chains and food webs.

19. Students will know examples of behavioral and physical adaptations in animals.
20. Students will be able to explain how pesticide residues travel through the food chain.

Visual Arts

In third grade, the concepts of space and dimension are emphasized. The students will recognize and work with spatial relationships in two- and three-dimensions. Pattern and order are stressed. Composition is analyzed as a fundamental component of art. Art history and cultural studies will focus on topics of study within the third grade.

Essential Questions:

- What are the various purposes for creating art and how do one's experiences influence the artistic creation?

Sample Activity: Watercolor, "Still life- Poppies"

Goal: Contour Drawing from observation for sketch then finished with watercolor and color pencils for value. The ability to create the illusion of a 3 dimensional form considering mass & volume by way of contour drawing technique followed with value of color for depth. State flower.

Artist: Georgia O'Keeffe

Spanish

Spanish in third grade fosters enthusiasm for Spanish language learning while developing content vocabulary and grammar concepts. Students are active learners of Spanish, engaging in real world encounters and collaborative learning activities.

Essential Questions:

How can I enhance my connections with people through language?

How do I collaborate with my classmates to create an authentic, positive Spanish learning environment?

Learning Outcomes:

1. Students introduce themselves, ask basic greeting questions and say goodbye.
2. Students express how they are feeling using descriptive adjectives.
    i. Students use the verb *Ser* to ask, "where are you from?" and answer, "I am from…"
3. Students locate where they live on a world map, the regions where Spanish is

primarily spoken, and can see the geographical relationship to where they live.

4. Students articulate the cultural significance of *Día de los Muertos* and the differences between this holiday and Halloween.
5. Students identify classroom objects, school subjects, and places in the school.
6. Students understand that in Spanish nouns are gender specific and can use the four definite articles and four indefinite articles corresponding with nouns.
7. Students identify subject pronouns (I, you, he/she, we and they) in Spanish. Students understand that verb endings in Spanish change according to the subject of the sentence.
8. Students conjugate regular Spanish verbs ending in –ar, -er, and –ir.
9. Students ask simple questions and say phrases such as: “May I go to the bathroom?” “May I get a drink of water?” “I need a pencil”...
10. Students ask, "how is the weather today?" and answer using descriptive weather related vocabulary and expressions with the appropriate form of *haber* or *hacer*.
11. Students understand basic South American geography and climate.
12. Students communicate the sports and pastimes they participate in and ask others about their favorite pastimes.
13. Students compare and contrast the activities they participate in with popular activities in the Spanish-speaking world.
14. Students communicate using the verb *jugar* to express playing sports.
15. Students communicate food preferences using stem-changing verbs *preferir* and *querer*.
16. Students use the verb *gustar* to communicate likes and dislikes.
17. Students understand differences in typical foods, eating schedules, eating at home and eating "out" in the Spanish-speaking world.
18. Students understand reasons for celebrations and how they are celebrated in Spanish-speaking countries including Patron Saint's Day, *Quinceañera*, and Independence Day.

Music

Essential Question:

How do you create music with modern technology?

Learning Outcomes:

Students will understand that:

Musical options will be enhanced using modern music technology.

Students will know that:

Having access to multiple sonic timbres will enhance creativity.

Students will be able to:

Analyze and differentiate between sonic textures.

Interpret modern technology to expand the creative awareness.

Reconstruct musical sounds they have heard in the past to create music.

Express themselves in new and creative ways.

Compose and create music.

Computer Technology

Kindergarten through 3rd grade technology curriculum is an interdisciplinary approach to the learning of technology and computer programming skills through the content areas of language arts, science, math, art and social studies. There are seven broad categories for computer instruction as defined by ISTE (International Society for Technology in Education):

- Empowered Learner
- Digital Citizen
- Knowledge Constructor
- Innovative Designer
- Computational Thinker
- Creative Communicator
- Global Collaborator

Second Grade Learning Outcomes:

Students will navigate word processing software.

Students will illustrate and communicate original ideas and stories using digital tools and media rich resources.

Students will engineer, construct, and program their own robots.

Students will understand, build and experiment with simple machines, structures and mechanisms.

Students will keyboard using appropriate keyboarding techniques.

Students will use appropriate ergonomic positions while keyboarding.

Students will use digital tools responsibly as digital citizens.

Tools: Third grade students continue to use Wedos to build robots, advancing skills and concepts learned in second grade. Students also use Lego Simple Motorized Mechanisms to build and explore machines and mechanisms, investigate motorized machines, calibrate and capture wind, and study gearing mechanisms. Students will use the engineering process to ask, imagine, plan, create and improve as they work with their mechanisms. Third grade students use technology to analyze, interpret and present data through charts, tables and spreadsheets. Students will also use Sphero robots, iOS programmable robotic balls, to deepen their programming and robotic skills.

Physical Education

The Rhoades School Physical Education Department understands that practicing physical activity, movement, and sport in a safe environment is essential in the development of the whole student. The staff not only teaches about the physical and mental benefits of exercise and fitness, but also stresses the importance of social skills applied within group game play and sports. The program emphasizes a supportive social arena in physical education classes where students feel safe enough to take risks and express themselves through movement and action, as well as verbally. All movement skills and concepts learned are developmentally appropriate and are taught within a logical, gradual progression to ensure confidence and efficiency. Students not only develop physically and individually on all levels, but also learn how to positively contribute to their peer group in an informal, athletic setting. A student's confidence grows as class offers various opportunities to practice decision-making and leadership skills, as well as developing athletic skills and seeing how physical education knowledge contributes to an overall healthy lifestyle, or wellness.

At The Rhoades School, grades K-5 have physical education class three times each week. At all levels classes include an aerobic warm-up, flexibility/stretching training, specific lead-up activity or game instruction. The majority of the period concludes with the sport/activity/game play.

The main goal of the staff is to promote a fun, safe atmosphere that promotes healthy, educated students that have the skills and confidence needed to enjoy a lifetime of physical activity. Our curriculum is based on the California State Physical Education Framework, and the AAHPERD (American Alliance for Health, Physical Education, Recreation, and Dance) general national standards.

Learning Outcomes & Essential Questions:

Each of the following general learning outcomes apply to all grade levels (K-8) at age adjusted expectations within these criteria. For example, for the final standard, a first grade student would demonstrate a lack of interference with others and an

eighth grade student would demonstrate respect for officials in a game and show appreciation for all participants with the game.

- Students demonstrate the motor skills and movement patterns needed to perform a variety of physical activities.
- Students demonstrate knowledge of movement concepts, principles, and strategies that apply to the learning and performances of physical activities.
- Students assess and maintain a level of physical fitness to improve health and performance.
- Students demonstrate knowledge of physical fitness concepts, principles, and strategies to improve health and performance.
- Students demonstrate and utilize knowledge of psychological and sociological concepts, principle, and strategies that apply to the learning and performance of physical activity.

Grade 3

Developmental Factors and Essential Questions

DF: Highly flexible, moderate-steady growth in muscle and bones, high energy bursts with periods of rest, high heart rate, begin working cooperatively with a partner.

EQ: What does sportsmanship look like? Why is it important?

Why are the advantages to athletic sneakers in PE?

Why do we need strategies in games?