

Curriculum Guide

The mission at Cross of Hope Elementary School is that all of our students develop academically, socially, emotionally, physically, and spiritually. We center all subjects around scientifically research-based education methods that take into consideration the various ways children learn and the fact that every child comes to school at his/her own level of development, bringing background knowledge and skills from his/her own life experiences.

Christian Studies: We use *One in Christ* Christian Curriculum. Christian Studies are integrated in all that we do. The lessons covered are age appropriate and provide a chronological survey of God's Word. This curriculum has been designed so that through the Word and Spirit of God, people of all ages:

- May know God, especially His seeking and forgiving love in Christ;
- May respond in faith and grow into Christian maturity;
- See themselves as the reconciled, redeemed children of God and individual members of Christ's body, the church;
- Live happily in peace with God, themselves, and their fellow human beings;
- Express their joy in worship of God and in loving service to others;
- Value all of God's creative work in His world and the church;
- Witness openly to Christ as the Savior of all people;
- Participate actively in God's mission to the church and the world;
- Live in Christian hope with the blessed assurance of eternal life in heaven through Christ Jesus, our Lord.

Through the focus on these goals the *One in Christ* curriculum is Christ-centered. This provides optimal opportunity for students to grow in their relationship of faith and life with God. "*We proclaim to you what we have seen and heard, so that you also may have fellowship with us. And our fellowship is with the Father and with His Son, Jesus Christ.*" (1 John 1:3).

Bible Study and Memorization:

In order to foster a closer relationship with God, students will learn Scripture through a variety of developmentally appropriate methods in each of our classrooms. "*Your word is a lamp to my feet and a light for my path.*" (Psalm 119:105)

Chapel: Worship is at the heart of Christian faith. It is a time to gather and praise God, learn from God's Word, and grow in faith. Worship is a regular part of the Christian lifestyle. Worship is the one thing that Christians do that is distinctly Christian. Since we educate body, mind, and soul, worship is a regular part of this school. All students attend and individual classes lead a weekly Chapel service. Our Church leadership is deeply involved in sharing and modeling the Word of God with our students.

Language Arts: At Cross of Hope we use a *Balanced Literacy* approach to teaching Language Arts throughout the grades. Balanced Literacy includes the following components:

- *Modeled Reading:* Teacher reads aloud selections to students
- *Shared Reading:* Teacher and students read text together
- *Guided Reading:* Teacher works with a group of students similar in strengths and needs and provides instruction through mini-lessons
- *Independent Reading:* Students read independently
- *Modeled and Shared writing:* Teacher and students collaborate to write text; teacher acts as scribe
- *Interactive Writing:* Teacher and students compose text together using a "shared pen" technique in which students do some of the writing
- *Guided Writing:* Teacher works with a group of students similar in strengths and needs and provides instruction through mini-lessons

- *Independent Writing*: Students write independently

Kindergarten – We work to develop competence with language and its sounds. We incorporate language-rich literature for read-aloud and shared-reading instruction, and leveled books for guided reading instruction. Writing occurs on a daily basis through student-made books and journals.

1st-5th Grade – *Trophies* series by Harcourt Brace is a developmental Reading/Language Arts program with explicit phonics instruction; direct reading instruction; guided reading strategies; phonemic awareness instruction and integrated language arts components. The *Trophies* series focuses on explicit instruction, systematic instruction, phonics, fluency, vocabulary, phonemic awareness, text comprehension, reading, and assessment.

Kindergarten-5th Grade Handwriting – We will use the Scott Foresman *D’Nealian Handwriting* program. This program gives teachers and students flexibility in dealing with individual differences in handwriting. We will focus on having the size, form, slant, and spacing consistent. The program introduces letters in groups that are formed by similar writing strokes. The *D’Nealian* method has been used successfully for many years and has supported children’s ability to write legibly, especially as they transition to cursive handwriting. Cursive handwriting will be introduced in 2nd grade.

Kindergarten-5th Grade – The Six Trait Writing framework will be used to support the understanding and implementation of the stages of writing. The framework provides students with the tools to effectively use the six traits: Ideas, Organization, Voice, Word Choice, Sentence Fluency, and Conventions. Students will also gain skills in editing and revising their work. Learning about and implementing the traits of writing give students a way to think and talk about writing. With a foundation for writing built on these traits, young writers are better able to communicate with their audience.

K-5th Grade – Students will use language, literature and media to develop reading strategies, reading comprehension and the writing process. Students will apply strategies and skills to comprehend information that is read, heard, and reviewed. Students develop communication skills through writing and speaking.

Math: COHES uses *Math in Focus: The Singapore Approach*, an elementary mathematics program created specifically to address the recommendations for instructional materials agreed upon by national and international panels of mathematics education specialists. It is a focused, coherent curriculum, without significant repetition year after year. There is an equal emphasis on conceptual understanding and fluency with skills. Concrete, pictorial, and symbolic representations, as well as multi-step and non-routine problem-solving are features of this program. This program offers a precise framework of concepts and skills providing hierarchy and linkage. Skills and concepts are taught in depth to allow for mastery, and strong emphasis is placed on problem-solving using concrete to visual to abstract development of concepts and model drawings to connect visual representation to problem solving. **Problem-solving is considered central to all mathematics study.**

There are a number of features that distinguish *Math in Focus: The Singapore Approach* curriculum.

These include:

- **A Focused, Coherent Syllabus** answering the call for a focused, coherent progression of mathematics learning, with an emphasis on proficiency with key topics. Math in Focus provides a strategic, articulated sequence of topics to be developed in depth to allow true mastery.
- **Integrated Concepts and Skills** that help students build a solid conceptual understanding through use of manipulative materials and visual models. Computational skills develop from this conceptual understanding and are reinforced through practice. As skills fluency increases, understanding is reinforced in turn.
- **Concrete to Pictorial to Abstract** pedagogy provides clear and engaging visuals that present concepts and model solutions allowing all students, regardless of language skills, to focus on the math lesson.
- **Extensive Problem Solving** occurs by encouraging students to enjoy and have fun with math. Students learn to use model drawings to visualize and solve problems through mathematical reasoning and critical thinking.

Topics addressed in each grade are listed below:

Kindergarten

Numeration and Operations

- Use concrete models to create a set with a given number of objects to 20
- Use cardinal and ordinal numbers
- Use numbers to represent quantities up to 20
- Count up to 20 objects in a set
- Count on and back to 20
- Count in 2s and 5s up to 20
- Compare and order sets and numbers up to 20
- Compare and order using the terms fewer, more, and less
- Identify and relate coin values
- Count and make coin combinations
- Model joining and separating sets
- Use +, -, = to write number sentences for addition and subtraction stories
- Represent addition and subtraction stories
- Multiplication and division concepts by counting by 2s and 5s to 20

Algebra

- Describe and extend repeating shape patterns
- Count by 2s and 5s
- Describe a rule for sorting objects
- Find missing terms in repeating patterns
- Identify odd and even numbers
- Model addition and subtraction stories with addition and subtraction number sentences
- Understand the meaning of the = sign in number sentences

Geometry

- Understand big, middle-sized, and small
- Describe and compare objects by position
- Identify similarities and differences
- Name flat shapes that make up real-world objects
- Identify, describe, sort, and classify two-dimensional shapes
- Make flat shape pictures
- Compare areas using non-standard units

- Name and sort solid shapes
- Understand that three-dimensional shapes are made up of two-dimensional shapes

Measurements

- Compare lengths and heights using non-standard units
- Compare and order lengths (long, short, longest, shortest)
- Develop a background for measurement using non-standard units
- Order objects by weight
- Compare weights using non-standard units
- Compare capacities using non-standard units
- Name and order the days of the week and the months of the year
- Compare durations of events
- Compare areas using non-standard units

Data Analysis

- Understanding similarities and differences in objects and shapes
- Sorting and classifying objects using one or two attributes
- Organize data for a picture graph
- Represent data in pictographs
- Interpret data in tally charts and pictographs

Problem Solving

- Build skills in addition and subtraction through problem solving
- Solve real-world problems involving addition and subtraction
- Solve real-world problems
- Use models to explain reasoning
- Investigate ideas with two-dimensional shapes
- Demonstrate that only a few big things fit into small spaces and many small things fit into big spaces
- Describe, sort, and classify two- and three-dimensional shapes
- Interpret data in tally charts and pictographs
- Identify and extend repeating shape patterns
- Sort and classify using attributes
- Identify similarities and differences

Communication

- Consolidate mathematical thinking in independent activities
- Discuss mathematical ideas in paired and small-group activities
- Share mathematical ideas in paired and small-group activities
- Express ideas in paired and small group activities

Connections

- Understand the connection between quantities and written numerals
- Explore relationships among counting, ordering, and ordinal numbers
- Solve real-world problems involving more and less

Representation

- Use concrete models to create a set with a given number of objects up to 20
- Use numbers and numerals to represent quantities up to 20
- Use picture cards to communicate understanding of comparisons (bigger and smaller)
- Understand the meaning of the = sign in number sentences
- Model addition and subtraction stories with addition and subtraction number sentences
- Represent addition and subtraction stories
- Describe and extend shape patterns
- Describe a rule for sorting objects
- Represent quantities with objects, number cubes, and numerals

- Show understanding of big, middle-sized, small and same size
- Describe and compare objects by position
- Name flat shapes that make up real-world objects
- Represent measurements and data in picture graphs and bar graphs
- Order a number of objects according to length, height, or weight
- Use one-to-one correspondence

1st Grade

Numbers and Operations

- Use concrete and pictorial models to create a set with a given number of objects up to 100
- Group objects and numbers up to 100 in tens and ones
- Use number bonds to represent number combinations
- Represent numbers to 100 on a number line
- Count to 100
- Count by 1's, 2's, 5's, and 10's forward and backward to 100
- Compare and order whole numbers to 100
- Compare and order using the terms same, more, fewer, greater than, less than, equal to, greatest, and least
- Use place value models and place value charts to represent numbers to 100
- Express numbers to 100 in standard and word forms
- Identify and relate coin values
- Count and make coin combinations
- Model addition and subtraction situations
- Use models, numbers, and symbols for addition and subtraction facts to 20
- Use the order, grouping, and zero properties to develop addition and subtraction fact strategies.
- Add and subtract up to 2-digit numbers with and without regrouping
- Formulate addition and subtraction stories
- Solve addition and subtraction problems using basic facts
- Count by 2s, 5s, and 10s
- Adding the same number to multiply
- Represent sharing equally and making equal parts
- Add and subtract money
- Use mental math strategies to add and subtract
- Estimate quantity by using referents

Algebra

- Identify, describe, and extend two-and three-dimensional shape patterns
- Skip count by 2s, 5s, and 10s
- Identify a rule for sorting objects
- Identify and extend growing and repeating patterns
- Find missing terms in growing and repeating patterns
- Understand the relationships between the numbers in fact families
- Use a variety of concrete, pictorial, and symbolic models for addition and subtraction
- Model addition and subtraction situations by writing addition and subtraction number sentences
- Understand the difference between equality and inequality

Geometry

- Describe position with left and right
- Use positional words to describe location
- Identify real-world two-dimensional shapes

- Identify and describe attributes and properties of two dimensional shapes
- Sort and classify two-dimensional shapes
- Compose and decompose two-dimensional shapes
- Identify real-world three-dimensional shapes
- Identify two dimensional shapes in three dimensional shapes
- Sort and classify three-dimensional shapes
- Recognize shapes from different perspectives
- Compose and decompose three-dimensional shapes
- Develop initial understanding of congruence and symmetry

Measurement

- Compare two lengths by comparing each with a third length (transitivity)
- Use a start line to measure length
- Measure lengths, using non-standard units
- Explain the need for equal-length units to measure
- Count length units in groups of 10s and 1s.
- Compare measurements made using different units
- Understand the inverse relationship between the size of a unit and the number of units
- Compare and measure weights using non-standard units
- Compare two masses by comparing each with a third mass (transitivity)
- Solve weight problems
- Read a calendar to identify the days of the week, months, and seasons of the year
- Recognize the correct way to write the date
- Tell time to the hour and half hour.
- Compose and decompose two-dimensional shapes (foundation for understanding area)

Data Analysis

- Sort and classify geometric shapes
- Sorting and classifying data in order to make graphs
- Collect and organize data in different ways
- Represent measurements and data in picture graphs, tally charts, and bar graphs
- Interpret data in pictograph, tally charts, and bar graphs
- Read bar graphs with scales
- Solve problems involving data

Problem Solving

- Build skills in addition, subtraction and measurement through problem solving
- Solve real-world problems involving addition and subtraction
- Apply problem strategies in *Put on Your Thinking Cap!* And problem solving activities
- Apply and explain problem solving processes in *Put on Your Thinking Cap!* and other activities
- Explore concepts more deeply and justify reasoning in *Let's Explore* and Hands-on Activities
- Apply thinking skills, *Put on your Thinking Cap!*, challenging practice, and problem solving activities
- Further investigate mathematical ideas by completing critical thinking skills activities
- Explore transitivity by comparing lengths and weights of three different objects
- Identify and describe attributes and properties of two- and three-dimensional shapes
- Interpret picture graphs, tally charts, and bar graphs.
- Identify and extend growing number patterns and repeating shape patterns
- Recognize shapes from different perspectives
- Use the commutative and associate properties and 10s and 1s to solve two-digit addition and subtraction problems

Communication

- Present mathematical thinking through math journal activities
- Discuss mathematical ideas in *Let's Explore* activities
- Work together in pairs or groups in *Let's Explore* games, and other activities
- Share mathematical ideas with others during *Let's Explore* and hands-on math activities.
- Express ideas in math journal activities, using lesson vocabulary
- Use chapter and lesson vocabulary correctly

Connections

- Understand the relationship between counting and addition and subtraction
- Understand the relationships among the numbers in fact families
- Connect addition and multiplication (repeated addition)
- Recognize and apply different strategies for adding and subtracting one- and two-digit numbers
- Learn how place value concepts apply to regrouping in addition and subtraction
- Solve real-world problems involving addition, subtraction, and measurement

Representation

- Use concrete and pictorial models to create a set with a given number of objects up to 100
- Represent numbers to 100 on a number line
- Use number bonds to represent numbers
- Understand equality and inequality
- Use the +, -, and = symbols to represent real-world addition and subtraction situations
- Represent numerical data using picture graphs, tally charts, and bar graphs
- Represent sharing equally and making equal groups
- Identify, describe, and extend two- and three-dimensional shape patterns
- Identify a rule for sorting objects
- Identify and extend growing and repeating patterns
- Use number bonds to represent number combinations
- Use a variety of concrete, pictorial, and symbolic models for addition and subtraction
- Measure and compare lengths and weights using non-standard units
- Use positional words to describe location
- Identify real-world two- and three-dimensional shapes
- Represent data in picture graphs
- Solve problems about sharing equally and making equal groups
- Use a variety of models for adding and subtracting
- Use technology (virtual manipulatives and computers) to model and draw

2nd Grade**Numbers and Operations**

- Use concrete and pictorial models to create a set with a given number of objects up to 1,000
- Group objects and numbers up to 1000 into hundreds, tens, and ones
- Group objects into equal sized groups
- Use place value models to create equivalent representations of numbers
- Represent numbers to 1,000 on a number line
- Count to 1,000
- Count by multiples of ones, tens, and hundreds
- Compare and order whole numbers to 1,000
- Use <, >, and = to compare whole numbers
- Use base-ten models and place value charts to represent numbers to 1,000

- Express numbers to 1,000 in terms of place value
- Compose and decompose multi-digit numbers including expanded form
- Connect geometric concepts with unit fractions-halves, thirds, and fourths
- Understand the relationship between a fraction and a whole
- Compare and order halves, thirds, and fourths using bar models
- Identify money bills
- Count and make combinations of coins and bills
- Compare money amounts
- Use the dollar sign and decimal point
- Model addition and subtraction with place value
- Recall addition and subtraction facts
- Use different methods to develop fluency in adding and subtracting multi-digit numbers
- Add and subtract whole numbers to 1,000
- Solve multi-digit addition and subtraction problems by using a bar model
- Multiply and divide with 2, 3, 4, 5, and 10.
- Represent multiplication as repeated addition
- Represent division as repeated subtraction
- Use the \times , \div , and $=$ symbols to represent multiplication and division situations
- Use bar models to represent multiplication and division situations
- Solve multiplication and division fact problems
- Add and subtract like fractions of halves, thirds, and fourths
- Solve addition and subtraction money problems
- Use mental math strategies to add and subtract
- Round to the nearest ten to estimate sums and differences

Algebra

- Describe, extend and create two-dimensional shape patterns
- Skip count by 2s, 3s, 4s, 5s, and 10s
- Identify rules for number patterns
- Find missing terms in table patterns
- Understand that addition and subtraction are inverse operations
- Apply properties of addition
- Use the Distributive Property as a multiplication strategy
- Recognize how bar models show relationships between numbers and unknowns in number sentences
- Use a variety of concrete, pictorial, and symbolic models for addition, subtraction, multiplication, and division
- Model multiplication and division situations by writing multiplication and division number sentences
- Use bar models and number sentences to represent real-world problems
- Determine the value of missing quantities in number sentences
- Use and create models that demonstrate equality or inequality
- Use $<$, $>$, and $=$ to write number sentences

Geometry

- Identify parts of lines and curves
- Identify, describe, sort, and classify two-dimensional shapes
- Identify parts of lines and curves
- Compose and decompose two-dimensional shapes
- Develop foundations for understanding area
- Identify, describe, sort, and classify three-dimensional shapes
- Identify surfaces that slide, stack, and roll

Measurement

- Demonstrate linear measure as an iteration of units
- Use rulers to measure length
- Measure lengths in meters, centimeters, feet, and inches
- Compare and measure lengths using customary and metric units
- Demonstrate partitioning and transitivity in relation to length
- Solve problems involving estimating, measuring, and computing length
- Compare and measure masses
- Solve mass problems
- Measure volume (capacity) in liters
- Solve volume problems
- Use A.M. and P.M. to write time
- Tell time to five minutes
- Find elapsed time
- Develop foundations for understanding area

Data Analysis

- Sort and classify two- and three-dimensional shapes by properties
- Collect and organize data in picture graphs
- Collect and organize data in different ways
- Represent data in picture graphs
- Interpret picture graphs with scales
- Solve real-world problems using picture graphs

Problem Solving

- Build skills in addition, subtraction, multiplication, division, and measurement through problem solving
- Solve real-world problems involving addition, subtraction, multiplication, division, and measurement
- Apply problem solving strategies in *Put on your Thinking Cap!* and problem solving activities
- Apply and explain problem solving processes in *Put on your Thinking Cap!* and other activities
- Explore concepts more deeply and justify reasoning in *Let's Explore* and hands-on activities
- Apply thinking skills, *Put on your Thinking Cap!*, challenging practice and problem solving activities
- Further investigate mathematical ideas by completing critical thinking skills and activities
- Demonstrate the inverse relationship between the size of a unit and the number of units
- Identify, describe, sort, and classify two- and three- dimensional shapes
- Interpret picture graphs with scales
- Identify rules for number patterns
- Identify surfaces that slide, stack, and roll
- Explore the inverse relationship between addition and subtraction

Communication

- Present mathematical thinking through math journal activities
- Discuss mathematical ideas in *Let's Explore* activities
- Work together in pairs or groups in *Let's Explore*, games, and other activities
- Share mathematical ideas with others during *Let's Explore* and hands-on activities
- Express ideas in math journal activities, using lesson vocabulary
- Use chapter and lesson vocabulary correctly

Connections

- Examine and apply the inverse relationship between addition and subtraction
- Connect geometric concepts with unit fractions
- Connect subtraction and division (repeated subtraction)
- Recognize and apply different strategies for multiplication and division facts
- Understand how patterns can be described using numbers, operations, and data displays
- Recognize the relationship between bar models, number sentences, and number patterns
- Solve real-world problems involving addition, subtraction, multiplication, division, measurement, and data analysis

Representation

- Use concrete and pictorial models to create a set with a given number of objects up to 1000
- Represent numbers to 1000 on a number line
- Use symbolic notation (<, >) to compare numbers
- Use bar models to represent addition and subtraction situations
- Represent numerical data using picture graphs with scales, tally charts, and bar graphs
- Use the \times , \div , = symbols to represent multiplication and division situations
- Represent multiplication with skip counting, dot paper arrays, and bar models
- Represent division as repeated subtraction sentences
- Describe, extend, and create two-dimensional shape patterns
- Identify rules for number patterns
- Use place value models to create equivalent representations of numbers
- Use a variety of concrete, pictorial, and symbolic models for addition, subtraction, multiplication, and division
- Represent multiplication with skip counting and arrays
- Use metric and customary units to measure length, volume (capacity), weight, and mass
- Represent data in bar graphs and picture graphs
- Solve real-world problems about social phenomena
- Use bar models to represent addition, subtraction, multiplication, and division situations
- Use technology (virtual manipulatives and computers) to model and draw

3rd Grade

Number and Operations

- Represent numbers to 10,000 in different equivalent forms
- Count to 10,000
- Count by hundreds and thousands
- Compare and order whole numbers to 10,000
- Use place value models to read, write, and represent numbers to 10,000
- Understand the meanings and uses of fractions including fraction of a set
- Understand that the size of a fractional part is relative to the size of the whole
- Compare fractions using models and number lines
- Identify equivalent fractions through the use of models, multiplication, division, and number lines
- Add and subtract like fractions
- Add and subtract money
- Solve real-world problems involving addition and subtraction of money
- Use the dollar sign and decimal point in money amounts

- Model regrouping in addition and subtraction with place value
- Add and subtract whole numbers to 10,000
- Solve addition and subtraction problems with greater numbers by using a bar model
- Multiply and divide with 6, 7, 8, and 9
- Represent multiplication in different ways
- Represent division in different ways
- Multiply 1s, 10s, and 100s with and without regrouping
- Use addition and multiplication properties to multiply
- Divide 10s and 1s with and without regrouping, no remainder
- Use bar models to represent multiplication and division situations
- Solve one- and two-step multiplication and division problems
- Add and subtract like fractions
- Add and subtract money amounts
- Use mental math strategies to add, subtract, multiply, and divide
- Use front-end estimation and rounding to estimate sums and differences

Algebra

- Create and analyze multiplication and division patterns
- Skip count by 6s, 7s, 8s, and 9s
- Analyze number and counting patterns
- Understand that multiplication and division are related
- Create and analyze multiplication and division patterns
- Model, define, and explain properties of multiplication
- Identify odd and even numbers
- Understand the relationships between the numbers in multiplication and division fact families
- Describe number relationships in context
- Use variety of concrete, pictorial, and symbolic models for multi-digit addition, subtraction, multiplication, and division
- Write multiplication and division number sentences
- Write and solve number sentences for one- and two-step real-world problems
- Determine the missing parts (quantities or symbols) in number sentences
- Understand equality and inequality
- Write and solve inequalities

Geometry

- Identify perpendicular and parallel lines
- Identify right angles and compare angles to right angles
- Describe, analyze, compare, and classify two-dimensional shapes by their sides and angles
- Classify and sort polygons and quadrilaterals by attributes and properties
- Investigate composing and decomposing two-dimensional shapes
- Use attributes and properties to solve problems
- Find and compare the area of plane figures in different square units
- Identify symmetrical figures and one line of symmetry
- Solve problems involving congruency
- Identify pairs of shapes that show a flip, slide, and turn
- Demonstrate that figures and their flip, slide, and turn images are congruent

Measurement

- Select appropriate units and tools to estimate and measure length
- Use meter sticks, 12-inch rulers, and yardsticks to measure length
- Measure length to the nearest half inch and inch
- Use referents to estimate distance

- Estimate and measure length, distance, and height in meters, centimeters, and kilometers
- Convert among metric units of length
- Solve one- and two-step real-world problems in measurement
- Select appropriate units and tools to estimate and measure weight
- Use referents to estimate weight
- Estimate and find masses of objects
- Convert among units of mass
- Select appropriate tools and units to estimate and measure volume and capacity
- Determine the volume and capacity of a container
- Relate the units of customary capacity to one another
- Use referents to estimate capacity
- Estimate and measure capacity in liters and milliliters]
- Convert among metric units of capacity
- Read time on a digital clock
- Convert between hours and minutes
- Determine elapsed time
- Add and subtract units of time
- Read a Fahrenheit thermometer
- Choose the appropriate tool and unit to measure temperature
- Use referents to estimate temperature
- Compare angles to right angles
- Measure perimeter of plane figures
- Choose the appropriate tool, unit, and strategy to measure perimeter
- Estimate and perimeter of surfaces and object
- Find and compare the area of place figures in different square units
- Make different plane figures with the same area
- Estimate area of small and large surfaces
- Compare the area and perimeter of two place figures
- Find the area of rectangles and composite figures.
- Decompose solid figures to find the surface area
- Estimate and measure volume in cubic units

Data Analysis

- Classify and sort polygons and quadrilaterals by attributes and properties
- Collect and organize data in bar graphs and line plots
- Interpret picture and bar graphs with scales
- Use frequency tables, bar graphs, picture graphs, and line plots to solve real-world problems

Problem Solving

- Build skills in addition, subtraction, multiplication, division, and measurement through problem solving
- Solve real-world problems involving addition, subtraction, multiplication, division, and measurement
- Apply problem solving strategies in *Put on your Thinking Cap!* and problem solving activities
- Apply and explain problem solving processes in *Put on your Thinking Cap!* and other activities
- Explore concepts more deeply and justify reasoning in *Let's Explore* and hands-on activities
- Apply thinking skills, *Put on your Thinking Cap!*, challenging practice and problem solving activities
- Further investigate mathematical ideas by completing critical thinking skills activities

- Demonstrate that figures and their flip, slide, and turn images are congruent
- Identify pairs of shapes that show a flip, slide, and turn
- Interpret bar graphs with scales
- Create and analyze multiplication and division patterns
- Model, define, and explain properties of multiplication
- Explore the inverse relationship between multiplication and division
- Use estimation to check reasonableness

Communication

- Present mathematical thinking through math journal activities
- Discuss mathematical ideas in *Let's Explore* activities
- Work together in pairs or groups in *Let's Explore*, games, and other activities
- Share mathematical ideas with others during *Let's Explore* and hands-on activities
- Express ideas in math journal activities, using lesson vocabulary
- Use chapter and lesson vocabulary

Connections

- Apply the inverse relationship between multiplication and division
- Understand that the size of a fractional part is relative to the size of the whole
- Connect the units of customary capacity to one another
- Understand the relationships between the numbers in multiplication-division fact families
- Understand the meanings and uses of fractions including fraction of a set
- Use addition, subtraction, multiplication, and division to construct and analyze graphs, frequency tables, and line plots
- Solve real-world addition, subtraction, multiplication, division, and measurement
- Solve real-world problems related to money

Representation

- Use place value models to read, write, and represent numbers to 10,000
- Represent numbers in different equivalent forms
- Use the dollar sign and decimal point in money amounts
- Solve addition and subtraction problems with greater numbers by using a bar model
- Represent multiplication and division in different ways
- Use a variety of representations for multiplication and division, such as arrays, area models, number lines, grouping, and sharing
- Determine the missing parts (quantities or symbols) in number sentences
- Create and analyze multiplication and division
- Identify a rule for number and counting patterns
- Use a variety of models to represent fractions and equivalent fractions
- Use a variety of concrete pictorial and symbolic models for multi-digit addition, subtraction, multiplication, and division
- Use customary units (including fractions) to measure length, capacity, and weight
- Use frequency tables, bar graphs, picture graphs, and line plots to solve problems
- Solve real-world problems involving social situations
- Use technology to model and draw
- Use a calculator to model, compute, and solve problems

4th Grade

Number and Operations

- Represent numbers to 100,000 in various contexts
- Count by thousands and ten thousands
- Compare and order whole numbers to 100,000
- Express numbers to 100,000 in standard, expanded, and word forms

- Recognize, write, name, and illustrate mixed numbers and improper fractions
- Find a fraction of a set
- Generate equivalent fractions
- Convert among mixed numbers and improper fractions
- Model decimals using tenths and hundredths
- Understand decimal notation through hundredths as an extension of the base-ten system
- Read and write decimals that are greater than or less than 1
- Compare and order decimals
- Identify equivalent decimals
- Connect equivalent fractions and decimals
- Apply understanding of models for multiplication and division
- Recall multiplication facts and related division facts
- Develop fluency in multiplying multi-digit numbers
- Divide by a 1-digit number, with a remainder
- solve multi-digit multiplication and division problems
- Add and subtract unlike fractions
- Add and subtract decimals
- Solve problems with addition and subtraction of decimals
- Use mental math and estimation strategies to find sums, differences, products, and quotients
- Decide whether an estimate or exact answer is needed
- Use estimation in determining relative sizes of amounts or distances
- Round and estimate with decimals

Algebra

- Identify describe, and extend numeric and non-numeric patterns
- Use a rule to describe a sequence of numbers or objects
- Represent division as the inverse of multiplication
- Find the greatest common factor and least common multiple
- Identify prime and composite numbers
- Understand the relationships between the numbers and symbols in formulas for area and perimeter
- Describe number relationships in context
- Use a variety of concrete, pictorial, and symbolic models for multiplication and division; and addition and subtraction with fractions and decimals
- Write and solve number sentences for one-, two-, and three-step real-world problems
- Use bar models and number sentences for one-, two-, and three-step real-world problems
- Determine the missing parts (quantities and symbols) in number sentences
- Understand equality and inequality

Geometry

- Draw perpendicular and parallel lines
- Construct and measure angles
- Apply the properties of squares and rectangles
- Find unknown angle measures and side lengths of squares and rectangles
- Identify figures that form tessellations
- Understand the relationships between the numbers and symbols in formulas for area and perimeter
- Identify line and rotational symmetry
- Relate rotational symmetry to turns and congruency
- Use transformations to form tessellations
- Develop coordinate readiness with tables and line graphs

Measurement

- Estimate and measure angles with a protractor
- Classify angles by angle measure
- Relate $\frac{1}{4}$ -, $\frac{1}{2}$ -, $\frac{3}{4}$ -, and full turns to the number of right angles
- Find the perimeter of composite figures
- Solve problems involving the perimeter of squares, rectangles, and composite figures
- Explain area as an attribute of two-dimensional figures
- Connect area measure to the area model for multiplication; use it to justify the formula For the area of a rectangle
- Estimate and measure area in square units
- Select appropriate units, strategies, and tools to solve area problems
- Explain the relationships among area formulas of different polygons

Data Analysis

- Construct line plots, stem-and-leaf plots, tables, and line graphs
- Interpret tally charts, bar graphs, picture graphs, tables, and line graphs
- Find the mean (average), median, mode, and range of a data set

Probability

- Decide whether an outcome is certain, more likely, equally likely, less likely, or impossible
- Express the probability of an event as a fraction

Problem Solving

- Build skills in multiplication, division, fraction concepts, data analysis, and measurement through problem solving.
- Solve real-world problems involving multiplication, division, fraction concepts, data analysis, and measurement
- Use appropriate strategies to solve real-world problems
- Apply and explain problem solving processes in *Put on your Thinking Cap!* and other activities
- Explore concepts more deeply and justify reasoning in *Let's Explore* and hands-on activities
- Apply thinking skills, *Put on your Thinking Cap!*, challenging practice, and problem solving activities
- Further investigate mathematical ideas by completing critical thinking skills activities
- Show that some figures can be turned and not change shape or size (rotational symmetry)
- Use properties of squares and rectangles to solve problems
- Analyze a data set by finding its mean, median, mode, and range
- Identify, describe, and extend numeric and non-numerical patterns
- Use properties of squares and rectangles to solve problems about area and perimeter
- Use estimation to check reasonableness (whole-number, addition, subtraction, multiplication, and division)

Communication

- Present mathematical thinking through math journal activities
- Discuss mathematical ideas in *Let's Explore* activities
- Work together in pairs or groups in *Let's Explore*, games, and other activities
- Share mathematical ideas with others during *Let's Explore* and hands-on activities
- Express ideas in math journal activities, using lesson vocabulary
- Use chapter and lesson vocabulary correctly

Connections

- Demonstrate that decimal notation is an extension of the base-ten system
- Examine the relationship between fractions and decimals
- Make connections among multiplication, division, factors, and multiples

- Convert among mixed numbers and improper fractions
- Describe number relationships in context
- Connect equivalent fractions and decimals
- Make connections among the greatest common factor, least common multiple, and operations with fractions
- Solve real-world problems involving multiplication, division, fraction concepts, data analysis, and measurement

Representation

- Represent numbers to 100,000 in various contexts
- Express numbers to 100,000 in standard, expanded, and word forms
- Model decimals to tenths and hundredths
- Write addition and subtraction number sentences for real-world problems with fractions and decimals
- Use models to show relationships between improper fractions and mixed numbers
- Apply understanding of models for multiplication and division
- Write addition and subtraction number sentences for real-world problems with fractions and decimals
- Use a rule to describe a sequence of numbers of objects
- Translate between equivalent improper fractions and mixed numbers
- Use a variety of models for multi-digit multiplication and division of whole numbers
- Use a variety of models for addition and subtraction of fractions and decimals
- Measure perimeter and area in customary and metric units.
- Collect data and organize it in a table
- Create a line graph from data in a table
- Use measures of central tendency to describe typical values of data sets (social)
- Solve real-world problems involving multiplication, division, fraction concepts, data analysis, and measurement
- Use technology (virtual manipulatives and computers) to model and draw

5th Grade

Number and Operations

- Explore negative numbers in context
- Understand place value concepts through millions
- Count by hundred thousands and millions
- Compare and order whole numbers to 10,000,000
- Express numbers to 10,000,000 in various forms
- Convert fractions to decimals
- Relate fractions and division expressions
- Model decimals using thousandths
- Understand place value concepts through thousandths
- Convert decimals to fractions
- Use ratios to solve problems
- Find equivalent ratios
- Solve problems with percent
- Convert fractions to percents
- Find a percent of a number
- Multiply multi-digit numbers
- Find quotients involving multi-digit dividends
- Solve multiplication and division problems
- Select the most useful form of the quotient and interpret the remainder
- Add the subtract unlike fractions and mixed numbers

- Multiply proper fractions, improper fractions, mixed numbers, and whole numbers
- Divide fractions by whole numbers
- Solve word problems with addition, subtraction, multiplication, and division of fractions
- Add and subtract decimals
- Multiply and divide decimals by whole numbers
- Solve problems with multiplication and division of decimals
- Use estimation and mental math to estimate sums, differences, products, and quotients
- Estimate sums and differences with fractions and decimals
- Estimate products and quotients with decimals

Algebra

- Identify, describe, and extend numeric patterns involving all operations
- Find rules to complete number patterns
- Understand the relationships between the numbers and symbols in formulas for surface area and volume
- Describe number relationships in context
- Use letters as variables
- Simplify algebraic expressions
- Use the order of operations in numeric expressions with two or more operations
- Write and solve number sentences and equations for one- and two-step real-world problems
- Write and solve equations
- Graph linear equations
- Understand equality and inequality

Geometry

- Work with angles on a straight line
- Work with angles at a point
- Apply the properties of right, isosceles, and equilateral triangles
- Apply the sum of the angle measures of a triangle
- Apply the properties of a parallelogram, rhombus, and trapezoid
- Demonstrate that the sum of any two side lengths of a triangle is greater than the length of the third side
- Find the area of a triangle
- Identify and classify prisms and pyramids
- Identify the solid that can be made from a net
- Identify cylinders, spheres, and cones
- Describe cylinders, spheres, and cones by the number of and types of faces, and the number of edges and vertices
- Build solids using unit cubes
- Plot points on a coordinate grid

Measurement

- Apply the idea that the sum of angles on a straight line is 180 degrees
- Apply the idea that vertical angles are equal in measure
- Apply the idea that the sum of angles at a point is 360 degrees
- Find the area of triangles

Data Analysis

- Represent data in a double bar graph
- Analyze data in a double bar graph

Probability

- Determine experimental probability of an outcome
- Compare the results of an experiment with theoretical probability

- Find all possible combinations by listing, making a tree diagram, and multiplying

Problem Solving

- Build skills in multiplication; division; fraction concepts, decimals, ratios, and percents; data analysis; and measurement through problem solving
- Solve real-world problems involving multiplication; division; concepts with fractions, decimals, ratios, and percents; data analysis; and measurement
- Use appropriate strategies to solve real-world problems
- Apply and explain problem solving processes in *Put on your Thinking Cap!* and other activities
- Explore concepts more deeply and justify reasoning in *Let's Explore* and hands-on activities
- Apply thinking skills, *Put on your Thinking Cap!*, challenging practice, and problem solving activities
- Further investigate mathematical ideas by completing critical thinking skills activities
- Apply the idea that the sum of angles on a straight line is 180 degrees
- Apply the idea that the sum of angles at a point is 360 degrees
- Explain the relationships among area formulas of different polygons
- Compare the results of an experiment to validate the use of theoretical probability
- Identify, describe, and extend numeric patterns involving all operations
- Explore the relationship among lists, tree diagrams, and multiplication to calculate combinations
- Use properties of multiplication (including the Distributive Property) in estimation and mental math

Communication

- Present mathematical thinking through math journal activities
- Discuss mathematical ideas in *Let's Explore* activities
- Work together in pairs or groups in *Let's Explore*, games, and other activities
- Share mathematical ideas with others during *Let's Explore* and hands-on activities
- Express ideas in math journal activities, using lesson vocabulary
- Use chapter and lesson vocabulary correctly

Connections

- Relate fractions and division
- Understand the connection among fractions, decimals, ratios, and percents as ways to represent parts of a whole
- Examine the relationships between three-dimensional figures and the two-dimensional figures that form them
- Relate fractions and division
- Explain the relationships among area formulas of different polygons
- Connect equivalent fractions, decimals, and percents
- Solve real-world problems involving multiplication; division; fraction, decimal, ratio, and percent concepts; data analysis; and measurement
- Compare experimental results and theoretical probability

Representation

- Explore negative numbers in context
- Express numbers to 10,000,000 in various forms
- Find equivalent ratios
- Explore the use of letters as variables in expressions and inequalities
- Convert fractions and decimals to percents
- Represent combinations with lists, tree diagrams, and multiplication
- Write and solve equations
- Find rules to complete number patterns
- Translate between fractions and percents

- Select the most useful form of the quotient
- Use a net to find the surface area of a prism
- Measure volume of a rectangular prism
- Represent data in a double bar graph
- Represent an equation as a graphed line
- Solve real-world problems involving social situations
- Use technology (virtual manipulatives and computers) to model and draw

Science Goals: Students must be able to:

- Use scientific strategies to explain and answer simple questions based on investigations
- Observe, describe, and compare three states of matter
- Sequence changes in the sky
- Identify different types of weather
- Compare living and non-living things
- Describe how scientific discoveries influence every day life
- Identify scientific tools used in society
- List ways in which germs are transmitted and prevented
- Identify parts of the human body and their functions

Kindergarten - 5th Grade - Students learn the processes of scientific investigations and use inquiry and scientific ways of observing, experimenting, predicting and validating to think critically. They learn how scientific discoveries, inventions, practices, and knowledge influence, and are influenced by individuals and societies. Student learning is showcased through our school-wide Science Fair.

Kindergarten

- Physical Science – Students explore the structure and properties of matter, the characteristics of energy, and the interactions between the two.
- Life Science – Students explore the properties, structures, and processes of living things and the interdependence of living things and their environments.
- Earth/Space Science – Students explore the structure of the Earth, Solar System, and Universe, the interconnections among them, and the processes and interactions of the Earth's systems.

1st Grade

- States of Matter - Students explore the properties of solids, liquids and gases.
- Physics of Movement - Students begin studying movement, exploring what it takes to make an object start moving, stop moving and change direction.
- Sky - Students make and use weather-watching tools and keep track of the weather. They explore the night sky.
- Animals and Plants - Students explore what grows and what doesn't. Students learn what is necessary for animals to stay alive, their body parts, baby animals and where animals live.
- Healthy Science - Students learn the basics of staying healthy including good food, exercise, being safe and staying well.

2nd Grade

- Change - Students learn about how the moon changes throughout the night and the month and seasonal changes. They discover the changes that occur when different

solids are mixed with water, how materials change state, what happens when objects are “charged”, and what changes magnets cause.

- Energy - Energy is an important theme in science. Here the students use energy as they use different materials to design and build sail boats. They use energy to make strange sounds and measure heat created by a chemical reaction. Finally, students examine paper that has an unusual reaction to heat energy.
- Soils and Rocks - Students perform tests on sand, clay, and humus to determine the unique properties of each kind of soil. Then they perform experiments to discover which soil is best for germinating seeds and what growing plants need. Rocks are explored as students sort, sieve, and perform geological tests.
- Biodiversity - The many different kinds of life on Earth are explored as students work with the metamorphosis of mealworms, the life cycle of a cucumber plant, and the most fascinating and unusual of all, slime mold, a yellow organism that moves, eats oatmeal, and grows, but isn't a plant or an animal.
- Healthy Science – In this unit, students learn about body systems, the organs that make up those systems, and the nutrients they need to stay healthy as they create a healthy body poster with transparent overlays.

3rd Grade

- Scientific Thinking - Students are constantly challenged to design tests, perform trials, and evaluate results as they explore magnets, pendulums, mixtures, materials, and light.
- Space/Our Planet - This unit starts with a look at space as students learn about the night sky. Then time is spent learning about each of the planets and comparing them to each other. The focus comes back to Earth as students learn about our air and water, animals around today and those long extinct, and how our planet keeps changing.
- Structure and Function - Students examine plants and animals to determine the function of structures such as teeth and beaks. These structures are related to the classification of animals and plants, and organism's ability to adapt to different environments, and its habitat.
- Healthy Science - Students are challenged to design experiments testing how to keep foods fresh and how food in their kitchen is kept safe. Students also learn about the nutrients that keep them healthy and the bigger issues involved in making sure our food supply and the environment are protected.

4th Grade

- Engineering Toys - This unit covers the basic stuff of physics – energy, motion, and forces, but with a fun twist. Students take apart, build, design, and experiment with toys as they come to understand forces, forms and transformations of energy, and motion.
- Investigating Chemistry - Students get their hands on many different kinds of materials in this unit as they explore physical and chemical changes, measure changes in mass with their own balance scale, and put their knowledge to work at the polymer lab.
- NM Earth Science - Students explore the tools and techniques of meteorologists, geologists, and astronomers in this unit. As meteorologists, they gather weather data and interpret weather maps. As geologists they learn to read the story of a rock and how to identify it. As astronomers, they experiment with lenses to understand simple telescopes and learn about the latest advances in astronomy.

- Survival - What does it take for a plant or animal to survive? What behavioral or structural adaptations does it need to get food, reproduce, or avoid being eaten? How do communities of animals and plants work and what happens when something goes wrong? Students observe how ants survive in a space-age habitat made from a nutrient gel.
- Healthy Science - Four systems of the body are explored with models and activities. Students make lung models, watch digestion, check out bones, and explore their nervous system with tricks and treats.

5th Grade

- Molecules and Atoms - Students construct their own understanding of the patterns found in the Periodic Table and then examine phase changes which includes working with a metal that melts in hot water. Students grow many kinds of crystals and use paper models to explore their geometry.
- Simple Machines - Not just simple machines but an entire kit on mechanics -forces, velocity, acceleration, and friction. Students store energy in a toy they make and use spring scales to explore the relationships and trade-offs found in levers, inclined planes, and pulley systems.
- Planet Earth/Our Universe - This unit begins close to home with an examination of the atmosphere, the role of water in our weather, and New Mexico water issues. *Into the Sky* traces the history of manned and unmanned space exploration before the unit blasts off to discover the Solar System, the universe that lies beyond.
- Biomes - Students examine the components of environments and biomes including food webs, predator/prey relationships, and the importance of decomposers. Then students work on teams to research one particular biome and as individuals to learn more about a particular interaction or organism within that biome.
- Healthy Science – Students learn about cells in the context of inherited characteristics before examining plant and animal cells. Small groups learn about and report on a body system and as a class complete a giant puzzle that goes from the smallest cell to their place in the world. Students also have an introduction to human development/puberty.

Social Studies: Social Studies is the exploration of people’s interactions in and with their social and physical environments. The four disciplinary strands include: History (New Mexico, United States, and World), Geography, Government and Civics and Economics. Our curriculum often includes international topics because of children’s increased exposure to global issues. Our Social Studies curriculum celebrates the rich and diverse contributions of peoples of many backgrounds and emphasizes our shared heritage. We strive to reflect the inclusion and recognition of culture as it defines individuals, groups, and societies. Our Social Studies curriculum is a spiraling framework in the sense that many skills, once introduced, develop over time. The standards illustrate how learners at all levels continue to build and expand their knowledge by using similar skills with increasing sophistication, refinement, and independence.

Kindergarten

In kindergarten, the main focus of social studies is to foster a child’s awareness of self in the social setting. Young children begin to understand the larger world through their understanding of themselves and their individual experiences. In Kindergarten, social studies offers a structure for broad, theme-based content. This content is organized around a topic, offering children multiple entry points and many opportunities for investigation.

Kindergartners begin with a study of self, family, school, and community. The class will study topics including: our school; my family; aspects of children’s neighborhoods such as houses and businesses; and rich thematic units such as the study of food, clothing, shelter, childhood, money, government, communication, family living, transportation, and relevant holidays, special occasions, and ethnic customs.

1st Grade

History

- Identify common attributes of people living in New Mexico today.
- Identify the significance of United States historical events and symbols.
- Identify and recognize major political and social figures in the United States.
- Identify and compare celebrations and events from the United States, Mexico, and Canada.
- Demonstrate the use of timelines in order to show events in relation to one another.

Geography

- Understand maps and globes as representations of places and phenomena.
- Identify and use the four cardinal directions to locate places in community, state, and tribal districts.
- Create, use, and describe simple maps to identify locations within familiar places (e.g.) classroom, school, community, state).
- Describe and classify characteristics of places as human or natural.
- Identify how traditional tribal and local folklore attempt to explain weather, characteristics of places, and human origins and relationships.
- Identify examples of and uses for natural resources in the community, state, and nation.
- Describe the human characteristics of places such as housing types and professions.
- Describe the Earth-Sun relationship and how it affects living conditions on Earth.
- Identify characteristics of culture.
- Describe the role of resources in daily life.
- Describe ways that humans depend upon, adapt to, and affect the physical environment.

Civics and Government

- Understand the purpose of rules and identify examples of rules and the consequences of breaking them.
- Describe different groups and rules that apply to them.
- Identify the President of the United States and the Governor of New Mexico.
- Describe how local, state, tribal and national leaders exemplify the ideals of the communities they represent.
- Describe different ways to determine a decision.
- Identify examples of honesty, courage, fairness, loyalty, patriotism and other character traits seen in American history.
- Explain and apply “good citizenship” traits within the school and community using the elements of fair play, good sportsmanship, the idea of treating others the way you want to be treated and being trustworthy.

Economics

- Understand how resources are limited and varied in meeting human needs.
- Define and differentiate between needs and wants.
- Understand the concept of goods and services.
- Understand the condition of not being able to have all of the goods and services one wants.
- Understand the value of work.
- Define the simplest form of exchange.

2nd Grade**History**

- Describe how historical people, groups, and events have influenced the local community.
- Describe the cultural diversity of individuals and groups and their contributions to United States history.
- Describe and compare similarities of the history of peoples in North America through literature.
- Correctly sequence historical events.

Geography

- Use a variety of maps to locate specific places and regions.
- Identify major landforms, bodies of water, and other places of significance in selected countries, continents, and oceans.
- Describe how climate, natural resources, and natural hazards affect activities and settlement patterns.
- Explain how people depend on the environment and its resources to satisfy their basic needs.
- Identify ways in which people depend on natural and man-made environments including natural resources to meet basic needs.
- Describe the physical processes that affect the Earth's features.
- Identify characteristics of physical systems.
- Describe how characteristics of culture affect behaviors and lifestyles.
- Describe ways that people and groups can conserve and replenish natural resources.

Civics and Government

- Understand the purpose of government
- Describe and compare class rules made by direct democracy (entire class votes on the rules) and by representative democracy (class elects a smaller group to make the rules).
- Identify local governing officials and explain how their roles reflect their community.
- Describe the concept of "public good" and identify local examples of systems that support the "public good".
- Understand characteristics of "good citizenship" as exemplified by historic and ordinary people.

Economics

- Identify economic decisions made by individuals and households and explain how resources are distributed.
- Understand the roles of producers and consumers in the production of goods and services.
- Explain the role of the worker in the local economy.
- Understand that money is the generally accepted medium of exchange in most societies, and that different countries use different currencies.

3rd Grade**History**

- Describe how the lives and contributions of people of New Mexico influenced local communities and regions.
- Describe local events and their connections to State history.
- Identify and compare components that create a community in the United States and its neighboring countries.
- Interpret information from multiple resources and contexts to determine chronological relationships.

Geography

- Identify and use the mapping tools of scale, compass rose, grid, symbols, and mental mapping to locate and draw places on maps and globes.
- Describe how human and natural processes can sometimes work together to shape the appearance of places.
- Explore examples of environmental and social changes in various regions.
- Identify personal behaviors that can affect community planning.
- Identify ways in which people have modified their environments.
- Describe the consequences of human modification of the natural environment.
- Identify the components of the Earth's biosystems and their makeup.
- Describe how physical processes shape features on the Earth's surface.
- Describe how patterns of culture vary geographically.
- Describe how transportation and communication networks are used in daily life.
- Describe how cooperation and conflict affect neighborhoods and communities.

Civics and Government

- Explain the basic structure and functions of local governments.
- Describe and give examples of "public good".
- Explain how New Mexico helps to form a nation with other states.
- Explain how symbols, songs, icons, and traditions combine to reflect various cultures over time.
- Describe how the majority protects the rights of the minority.
- Explain how rules/laws are made and compare different processes used by local, state, tribal, and national governments to determine rules/laws.
- Explain the significance of participation and cooperation in a classroom and community.
- Understand the impact of individual and group decisions on communities in a democratic society.
- Explain the significance and process of voting.

Economics

- Explain that people want more goods and services than it is possible to produce.
- Define and categorize resources.
- Identify a variety of products that use similar resources.
- Recognize that a market system exists whenever buyers and sellers exchange goods and services.
- Understand how businesses operate in the United States' free enterprise system.
- Identify examples of economic systems.
- Understand the purposes of spending and saving money.
- Identify currency, credit, debit, and checks as the basic mediums of exchange in Western society.

4th Grade**History**

- Identify important issues, events, and individuals from New Mexico pre-history to the present.
- Describe the role of contemporary figures and how their contributions and perspectives are creating impact in New Mexico.
- Describe local events and their connections and relationships to natural history.
- Explain how historical events, people, and culture influence present day Canada, Mexico, and the United States.

Geography

- Apply geographic tools of title, grid system, legends, symbols, scale, and compass rose to construct and interpret maps.

- Translate geographic information into a variety of formats such as graphs, maps, diagrams, and charts.
- Draw conclusions and make generalizations from geographic information and inquiry.
- Identify a region as an area with unifying characteristics.
- Describe the regions of New Mexico, the United States, and the Western Hemisphere.
- Identify ways in which different individuals and groups of people view and relate to places and regions.
- Explain how geographic factors have influenced people, including settlement patterns and population distribution in New Mexico, past and present.
- Describe how environment, both natural and man-made, have influenced people and events over time, and describe how places change.
- Understand how visual data organizes and presents geographic information.
- Explain how the Earth-Sun relationships produce day and night, seasons, major climatic variations, and cause the need for time zones.
- Describe the four provinces (plains, mountains, plateau, and basin and range) that make up New Mexico's land surface.
- Describe how cultures change.
- Describe how geographic factors influence the location and distribution of economic activities.
- Describe types and patterns of settlements.
- Identify the causes of human migration.
- Describe how and why people create boundaries and describe types of boundaries.
- Identify the distribution of natural and man-made resources in New Mexico, the Southwest, and the United States.

Civics and Government

- Explain how the organization of New Mexico's government changed during its early history.
- Compare how the State of New Mexico serves national interests and the interests of New Mexicans.
- Explain the difference between making laws, carrying out the laws, and determining if the laws have been broken, and identify the government bodies that perform these functions at the local, state, tribal, and national levels.
- Describe various cultures and the communities they represent, and explain how they have evolved over time.
- Compare and contrast how the various governments have applied rules/laws, majority rule, "public good," and protections of the minority in different periods in New Mexico's history.
- Explain the difference between rights and responsibilities, why we have rules and laws, and the role of citizenship in promoting them.
- Examine issues of human rights.

Economics

- Understand when choices are made that those choices impose "opportunity costs."
- Describe different economic, public, and/or community incentives.
- Illustrate how resources can be used in alternative ways and, sometimes, allocated to different users.
- Explain why there may be unequal distribution of resources.
- Understand and explain how conflict may arise between private and public incentives.
- Understand how the characteristics and benefits of the free enterprise system in New Mexico compares to other economic systems in New Mexico.
- Explain that government raises money by taxing and borrowing to pay for the goods and services it provides.

- Identify patterns of work and economic activity in New Mexico and their sustainability over time.
- Explain how New Mexico, the United States, and other parts of the world are economically interdependent.
- Explain that banks handle currency and other forms of money and serve as intermediaries between savers and borrowers.
- Explain that money can be used to express the “market value” of goods and services in the form of prices.
- Use data to explain an economic pattern.

5th Grade

History

- Describe changes of governance of New Mexico (Indigenous, Spanish, Mexican, French, Texan, and United States).
- Explain the motivations for the European exploration of the Americas. Describe and explain reasons for colonization and include religious freedom, desire for land, economic opportunity, and a new way of life to include the roles and views of individuals who founded colonies.
- Explain the significance of major historical documents like the Mayflower Compact, Declaration of Independence, *The Federalist Papers*, United States Constitution, Bill of Rights, and the Gettysburg Address.
- Identify the interactions between American Indians and European settlers, including agriculture, cultural exchanges, alliances, and conflicts like the first Thanksgiving, the Pueblo Revolt, and the French and Indian War.
- Describe how introducing slavery into the Americas, especially the United States, laid a foundation for conflict.
- Explain early representative government and identify democratic practices that emerged like the Iroquois Nation model, town meetings, and assemblies.
- Describe characteristics of early societies, including the development of tools and adaptation to environments.
- Identify, describe, and explain the political, religious, economic, and social conditions in Europe that led to the Era of Colonization.
- Identify the European countries that colonized the North American continent and their areas of settlement.
- Describe the development of slavery as a widespread practice that limits human freedoms and potentials.
- Differentiate between, locate, and use primary and secondary sources like computer software, interviews, biographies, oral histories, print, visual material, and artifacts to acquire information.
- Use resources for historical information like libraries, museums, historical societies, courthouses, world-wide web, family, records, and elders.
- Gather, organize, and interpret information using a variety of media and technology.
- Show the relationship between social context and events.
- Use effective communication skills and strategies to share research findings

Geography

- Make and use different kinds of maps, globes, charts, and databases.
- Demonstrate how different areas of the United States are organized and interconnected.
- Identify and locate each of the fifty states and capitols of the United States.
- Identify tribal territories within states.
- Employ fundamental geographic vocabulary (e.g., latitude, longitude, interdependence, accessibility, connections).

- Demonstrate a relational understanding of time zones.
- Use spatial organization to communicate information
- Identify and locate natural and man-made features of local, regional, state, national, and international locales.
- Describe human and natural characteristics of places.
- Describe similarities and differences among regions of the globe, and their patterns of change.
- Describe how man-made and natural environments have influenced conditions in the past.
- Identify and define geographic issues and problems from accounts of current events.
- Explain how the four provinces of New Mexico's land surface (plains, mountains, plateau, and basin and range) support life.
- Explain how physical features influenced the expansion of the United States.
- Understand how resources impact daily life.

Civics and Government

- Explain how the three branches of national government function and understand how they are defined in the United States Constitution.
- Identify the fundamental ideals and principles of our republican form of government (e.g., inalienable rights ("life, liberty, and the pursuit of happiness"), the rule of law, justice, equality under the law).
- Identify and describe the significance of American symbols, landmarks, and essential documents.
- Compare and contrast the basic government sovereignty of local, state, tribal, and national governments.
- Explain the significance and importance of American customs, symbols, landmarks, and celebrations.
- Identify and summarize contributions of various racial, ethnic, and religious groups to national identity.
- Describe selected ethnic and religious customs and celebrations that enhance local, state, tribal, and national identities.
- Describe the narrative of the people and events associated with the development of the United States Constitution and describe its significance to the foundation of the American republic, to include:
 - Colonists' and Native Americans' shared sense of individualism, independence, and religious freedom that developed before the Revolution
 - Articles of Confederation
 - Purpose of the Constitutional Convention
 - Natural rights expressed in the Declaration of Independence
- Describe the contributions and roles of major individuals, including George Washington, James Madison, and Benjamin Franklin.
- Explain the meaning of the American creed that calls on citizens to safeguard the liberty of individual Americans within a unified nation, to respect the rule of law, and to preserve the constitution of local, state, tribal and federal governments.

Economics

- Understand the impact of supply and demand on consumers and producers in a free enterprise system.
- Understand the patterns of work and economic activities in New Mexico and the United States.
- Describe the aspects of trade.
- Explain how voluntary trade is not coercive.
- Explain how all economic systems must consider the following: What will be produced? How will it be produced? For whom will it be produced?

- Identify the influence of bordering countries (Canada and Mexico) on U.S. commerce.
- Understand basic economic patterns of early societies.
- Understand the economic motivation of exploration and colonization by colonial powers.

Physical Education Kindergarten-5th Grade: Physical activity is critical to the development and maintenance of good health. The goal of physical education is to develop physically. Educated individuals who have the knowledge, skills, and confidence can enjoy a life time of healthful physical activity (National Association for Sports and Physical Education, 2005). At Cross of Hope School, our students will use their God-given abilities to participate in a Physical Education program which:

- is developed according to national standards for physical education
- glorifies God by exercising the fruits of his spirit
- is FUN!

The physical wellness of our students is addressed by our PE instructor in weekly Physical Education classes. Classes are developmentally appropriate and focused on allowing students to participate in a variety of activities that help them to build on their individual abilities. These activities include providing our students with the skills necessary to perform a variety of physical activities, as well as emphasizing the importance of participating regularly in physical activity. Classes will be held at the Taylor Ranch Community Center or on our school campus.

Music Kindergarten-5th Grade: It is God's desire and command that we praise him and music is a method more than welcome to God's ears. It is our desire at Cross of Hope School to educate our students in music knowing that it allows them to return their gift of music back to God. Every student should have the opportunity to perform, to create, and to listen to music with understanding. In order to achieve that end, every student will have access to a comprehensive, balanced, and sequential program of music study. Children should be active participants in the music-making process with a goal of musical independence. The mediums through which students participate include:

singing	using body percussion	composing
using speech	playing instruments	responding
setting sound	writing music	evaluating
moving	listening	reading music
improvising		

An understanding of music is gained through the sequenced development of concepts based on the elements of music (rhythm, melody, harmony, timbre, form, expression), history and style, and composition and performance.

Kindergarten students need to know and do:

Rhythm

- Comprehend and demonstrate steady beat
- Identify and use long and short sound
- Identify sound and silence
- Understand and use quarter notes and paired eighth notes
- Understand that musical notation moves from left to right

Melody

- Identify and demonstrate high/low pitches
- Read, write and perform short melodic patterns using high/low (sol-mi) pitches

Harmony

- Identify the use of accompaniment and no accompaniment in the piece

Timbre

- Identify the different vocal sounds - singing, talking, whispering and shouting
- Identify the different instrumental sounds - woods, metals, and skins
- Explore the use of body percussion

Form

- Recognize the beginning and ending of the song
- Understand and perform echo
- Explore varied phrases
- Identify the same/different phrases and understand the concept of AB form

Expression

- Understand and demonstrate the concept of loud and soft in musical sense
- Understand and demonstrate various fast and slow tempo

History/Style

- Explore music from the United States and other cultures

Composition/Performance

- Compose, perform, and respond using quarter notes and paired eighth notes
- Compose, perform, and respond using sol and mi

First Graders need to know and do:**Rhythm**

- Demonstrate steady beat and no beat
- Accurately echo rhythmic phrases using quarter notes, eighth notes, and quarter rests

Melody

- Identify melodic phrases that move upward or downward
- Sing in the range of E-B
- Accurately echo melodic phrases
- Read, write and match pitch using solfege notes do, mi, sol, and la

Harmony

- Identify and perform ostinati

Timbre

- Identify solo and group performances

Form

- Understand use of the repeat sign symbol
- Perform songs and instrumental pieces using echo

Expression

- Understand and use louder and softer dynamics
- Understand and use faster and slower tempo

History/Style

- Recognize and sing music from United States and other cultures

Composition/Performance

- Create, perform and respond with music skills and vocabulary

Second Graders need to know and do:**Rhythm**

- Understand beat and rhythm
- Understand 2/4 time signature
- Read, write and accurately echo rhythmic phrases using tied quarter notes, half notes and half rests

Melody

- Identify treble clef lines and spaces
- Read, write and match pitch using solfege notes do, mi, so, la, re, and do

Timbre

- Identify orchestral instruments tuba, cello, and clarinet

Form

- Understand and use question/answer and ABA form
- Perform rounds/canons

Expression

- Understand and use piano and forte dynamics
- Understand and use crescendo and decrescendo

History/Style

- Recognize and sing music from the United States and other cultures

Composition/Performance

- Create, perform, and respond with music skills and vocabulary

Third/Fourth/Fifth Graders need to know and do:**Rhythm**

- Understand meter in 2 versus meter in 3
- Understand time signatures 3/4, 4/4
- Read, write and accurately echo rhythm phrases using dotted notes, whole notes, whole rests, eighth notes and eighth rests
- Understand measure and bar line

Melody

- Identify steps, leaps and repeats
- Read, write and match pitch using solfege notes do, re, mi, la, low la, and low so

Harmony

- Identify and perform partner songs and 3-part rounds
- Understand the difference between unison and harmony

Timbre

- Identify orchestral instruments, trombone, string, bass, and bassoon

Form

- Understand and use introduction, coda and fermata

Expression

- Understand and use pianissimo, mezzo-piano, mezzo-forte and fortissimo dynamics
- Sing in tune using good posture, diction, and breath control

History/Style

- Explore music from the United States and other cultures

Composition/Performance

- Create, perform, and respond with music skills and vocabulary

Spanish Kindergarten-5th Grade: We believe that learning languages is important and in fact, language and communication are a basic part of our human experiences. Helping students acquire skills for understanding and communicating with diverse linguistic and cultural groups are a significant component of a global education. Individuals who possess these skills will be well prepared for a wide range of interactions and situations. Spanish instruction will occur through collaboration between our Spanish teacher and classroom teachers. Instruction will be provided which emphasizes the following:

- By listening, speaking and writing, students will express themselves in a culturally appropriate manner for many purposes.
- By listening, observing, reading and discussing, students will comprehend and interpret oral, written, and visual messages on a variety of topics.
- Understand the relationship between language and culture.
- Develop an understanding of other cultures, including such elements as: value systems, languages, traditions, and individual perspectives.

- Understand how languages work.
- Use Spanish to reinforce and expand knowledge of other disciplines.
- Use Spanish for personal enjoyment, personal enrichment, and employability.

Students will participate in weekly lessons. Classroom teachers will then reinforce the concepts and vocabulary introduced. An emphasis is placed on having our students learn specific vocabulary and phrases which will build as they progress through our program. We will also use poetry, rhymes, stories, finger plays, songs, field trips and cooking experiences to enhance our students' knowledge and appreciation of Spanish.

Kindergarten-5th Grade: Students will have opportunities to gain skills in computer literacy, keyboarding, word processing, drill and practice, and Internet use with classroom computers. Teachers will integrate the use of technology in content areas.

Service Learning Kindergarten-5th Grade: We believe that in response to God's incredible grace, we as Christians have a responsibility to share God's love through service. Students will engage in a variety of service learning activities throughout the year which not only complement learning in the classroom, but share the love of Christ with the world. "*A new command I give you: **Love one another.** As I have **loved** you, so you must **love** one another.*" (John 13:33-35)

Fine Arts Kindergarten-5th Grade: Our classroom teachers will provide Fine Arts instruction. We believe that in order for children to develop their mental capabilities and realize their fullest potential, they need to be exposed to many kinds of knowledge, to many ways of knowing their world and expressing their thoughts. Our Fine Arts program helps children communicate thoughts and feelings through performance and visual forms. Our students will be provided opportunities through visual arts experiences that provide knowledge about the world and ways of experiencing it that contributes to an understanding that is unique and different. The arts present artists' insights about personal experiences common to us all. They also convey important social meanings or describe social values or conditions. Our Fine Arts program will be integrated into reading, writing, and social studies experiences.