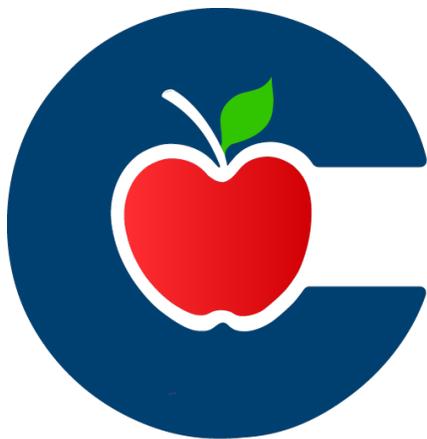


Conroe ISD  
Parent Curriculum Guide  
Prek-8<sup>th</sup> Grade



**CONROE**  
**INDEPENDENT**  
**SCHOOL DISTRICT**

## Introduction

Conroe Independent School District offers a comprehensive educational program for all students. In addition to the core classes of English, reading, social studies, science, and mathematics, schools offer foreign language, art, music, career and technology classes and other electives.

Conroe also serves students in a variety of programs such as Gifted and Talented, Bilingual and English as a Second Language classes, and Special Education. Students are identified for these special programs through parent and teacher referrals.

The following information provides a summary at each grade level for each of the following subjects: English and reading, mathematics, social studies, and science for grades pre-kindergarten through eight. This summary provides the information parents need to be an integral part of the educational program for their children by knowing what is expected at each grade level.

Please use this information as guide to assist your child as he/she progresses through each grade level.

## Pre-Kindergarten students will:

### Social and Emotional Development

- Is aware of where own body is in space and respects personal boundaries
- Shows initiative in independent situations and persist in attempting to solve problems
- Follows classroom rules and routines with occasional reminders from teacher
- Takes care of and manages classroom materials
- Regulates own behavior with occasional reminders or assistance from teacher
- Begins to understand the difference and connection between emotions/feelings and behaviors
- Remains focused on engaging group activities for up to 20 minutes at a time
- Uses effective verbal and nonverbal communication skills to build relationships
- Demonstrates empathy and caring for others
- Demonstrates an understanding that others have perspectives and feelings that are different from their own

### Language and Communication

- Shows understanding by following two-step oral directions and usually follows three-step directions.
- Engages in conversations in appropriate ways.
- Demonstrates knowledge of verbal conversational rules.
- Investigates and demonstrates growing understanding of the sounds and intonation of language.
- Uses a wide variety of words to label and describe people, places, things, and actions.
- Uses complete sentences of four or more words.

### Emergent Literacy

- Recognizes that text has meaning.
- Hears and recognizes individual words in a sentence, syllables in words, sounds in words, and rhyming words.
- Names at least 20 uppercase and lowercase letters and the sounds they make.
- Retells or re-enacts a story after it is read aloud.
- Asks and responds to questions relevant to the text read aloud.
- Will make inferences and predictions about text.
- Can distinguish between elements of print including letters, words, pictures, and directionality.
- Uses marks, letters, or symbols to record language and shares meaning.
- Contributes ideas for drafts in writing activities.
- Writes own name using letters in proper sequence.
- Uses letters to make words or part of words.

### Emergent Writing

- Uses marks, letters, or symbols to record language and verbally shares meaning.
- Discusses and contributes ideas for drafts composed in whole/small group writing activities.
- Writes own name using legible letters in proper sequence.
- Uses letters to make words or part of words.

### Math

- Knows that objects, or parts of an object can be counted.
- Counts 1 to 10 items, with once count per item.
- Identifies 1-5 objects without counting.
- Uses words to rote count from 1-30.
- Counts 1-10 items one-to-one.
- Recognizes one-digit numerals, 0-9.

- Uses concrete objects, pictorial models and shares a verbal word problem for adding and subtracting up to 5 objects.
- Uses informal strategies to separate up to 10 items into equal groups.
- Names and creates common shapes.
- Slides, flips, and turns shapes to demonstrate that the shapes remain the same.
- Recognizes and compares heights and weights or lengths of people or objects.
- Sorts objects into groups and uses language to describe how the groups are similar and different.
- Recognizes and creates patterns.
- Collects data and organizes it in a graphic representation.

## Science

- Observes, investigates, describes, and discusses properties of common objects, motion of objects and types of energy.
- Observes, investigates, describes, and discusses characteristics of organisms, life cycles, and relationship of organisms to their environment.
- Observes, investigates, describes, and discusses earth materials and their properties and uses.
- Observes, investigates, describes, and discusses objects in the sky, the changes in the sky, and the importance of caring for our environment.

## Social Studies

- Identifies similarities and differences between people and their cultures.
- Demonstrates that all people need food, clothing, and shelter.
- Demonstrates understanding of what it means to be a consumer.
- Discusses roles and responsibilities of family, school, and community helpers.
- Explores geography tools and resources.
- Identifies flags of the United States and Texas.
- Engages in voting as a method for group decision-making.

## Fine Arts

- Uses art as a form of creative self- expression.
- Participates in classroom music activities.
- Recreates stories through dramatic play.

## Physical Development

- Demonstrates coordination and balance.
- Shows control small-muscle and large-muscle strength and control.
- Practices good habits of personal safety, health, hygiene, nutrition, and exercise.

## Technology

- Uses, operates, and names a variety of digital tools.
- Uses digital learning applications and programs to create digital products and express own ideas.

## Kindergarten students will:

### Language Arts

- Listen actively and ask questions to understand information and answer questions using multi-word responses
- Utilize print awareness such as holding a book right side up, turning its pages correctly, knowing that reading moves from top to bottom and left to right, and demonstrating one to one matching.
- Identify and produce rhyming words (such as hat, cat, mat); identify words with the same beginning sounds (such as big, ball, boy); blend and break words apart by syllables and individual sounds (such as cat, c-a-t).
- Identify all uppercase and lowercase alphabet letters and identify and produce all letter sound relationships.
- Read simple, three letter words and 25 sight words.
- Recognize different characteristics of genres such as: folktales, fables, fairy tales, and nursery rhymes in fiction; rhyme and rhythm in poetry; main characters in drama and fiction; titles and graphics in informational/nonfiction texts with adult assistance; and, characteristics of persuasive text with adult assistance.
- Discuss the author's purpose for writing a text, including the meaning, theme, and central idea with adult assistance.
- Use the writing process to compose (dictated or written) literary, expository, and procedural texts using conventions of academic language.
- Ask open ended research questions and develop a plan for answering them.

### Math

- Understanding counting and cardinality to at least 20
- Apply the principles of counting to make the connection between numbers and quantities to at least 20
- Compare sets of objects to at least 20
- Compose and decompose numbers up to 10 with objects and pictures
- Understanding joining as addition and separating as subtraction
- Use meanings of numbers to create strategies for solving problems and responding to practical situations involving addition and subtraction
- Comparing objects by measurable attributes
- Recognize attributes of two- and three-dimensional geometric figures.
- Construct and use graphs of real objects or pictures to answer questions.
- Learn about money received as income or gifts
- Understand the value of wants and needs to effectively prepare for financial security
- Apply math to solve problems connected to everyday experiences.
- Communicate about math using formal and informal mathematical language.
- Display, explain, and justify mathematical ideas and arguments.
- Communicate mathematical ideas, reasoning, and their implications using multiple representations.

## Science

- Plan and conduct simple investigations. Follow safety rules.
- Use science tools including hand lenses, balances, cups, bowls, and computers.
- Observe and record properties of objects.
- Observe, record, and discuss how materials can be changed by heating or cooling.
- Explore interactions between magnets and various materials.
- Observe and describe the location of an object in relation to another and the ways that objects can move.
- Use the senses to explore different forms of energy.
- Observe, describe, and sort rocks by size, shape, color, and texture.
- Give examples of ways rocks, soil, and water are useful.
- Describe physical properties of natural sources of water.
- Describe weather changes from day to day and over seasons.
- Describe objects in the sky.
- Identify events that have repeating patterns including seasons of the year and day and night.
- Examine evidence that living organisms have basic needs.
- Differentiate between living things and nonliving things.
- Identify basic parts of plants and animals and sort plants and animals into groups.
- Identify ways that young plants resemble the parent plant.
- Observe changes that are part of a simple life cycle of a plant.

## Social Studies

- Identify the customs associated with national holidays; Constitution Day, President's Day, Veterans Day, and Independence Day.
- Understand the contribution of historical figures to the community, state, and nation.
- Understand the concept of location, the physical and human characteristics of place and the influence of geographic location on human characteristics.
- Identify authority figures in the home, school, and community.
- Identify and describe basic human needs of food, clothing, and shelter and the way people meet these needs such as having a job.
- Identify the customs, symbols, holidays, celebrations, pledges, and traditions that represent the family and American beliefs.
- Name and describe examples of technology in the home and school.

## First grade students will:

### Language Arts

- Share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using conventions of language.
- Distinguish between long and short vowel sounds in one-syllable words.
- Decode and write words in isolation and in context by applying common letter-sound correspondences.
- Read 100 high frequency words with accuracy and fluency.
- Recognize different characteristics of genres such as: folktales, fables, fairy tales, and nursery rhymes; rhyme, rhythm, repetition, and alliteration in poetry; characters, dialogue, and setting in drama; features and simple graphics in informational/nonfiction texts; and, characteristics of persuasive text with adult assistance.
- Discuss the author's purpose for writing a text, including the meaning, theme, and central idea.
- Analyze the deeper meaning of texts using: plot elements, main characters, and the reasons for their actions in fiction texts; and, organizational patterns such as chronological order and description with adult assistance in nonfiction texts.
- Use the writing process to compose literary, expository, and procedural text using the conventions of academic language.
- Ask open-ended research questions and develop a plan for answering them.

### Math

- Applying place value to numbers up to 120
- Use relationships within the numeration system to understand the sequential order of counting number and their relative magnitude.
- Solving problems with addition and subtraction up to 20
- Extend beyond joining and separating problem situations to comparing and combining.
- Use efficient, accurate, and generalizable methods to perform operations.
- Use properties of operations and the relationship between addition and subtraction to solve problems.
- Composing and decomposing two-dimensional shapes and three-dimensional solids
- Name, identify, and describe basic two-dimensional shapes and three-dimensional solids.
- Name and identify US coins by their value and describe the relationships among them.
- Begin counting sets of coins with pennies, nickels, and dimes.
- Begin to understand fair shares and recognize examples and non-examples of halves and fourths.
- Select and use units to describe length and time.
- Collect, sort, and organize data with tally marks, t-charts, picture graphs, and bar-type graphs.
- Define money as income as a means of obtaining goods and services while distinguishing between spending and saving to effectively prepare for financial security.
- Apply math to solve problems connected to everyday experiences.
- Communicate about math using formal and informal mathematical language.

- Display, explain, and justify mathematical ideas and arguments.
- Communicate mathematical ideas, reasoning, and their implications using multiple representations.

## Science

- Demonstrate safe practices during classroom and field investigations.
- Classify objects by observable properties and by the materials from which they are made.
- Predict changes in materials caused by heating or cooling.
- Discuss how different forms of energy are important to everyday life.
- Demonstrate and record the ways objects can move.
- Predict how a magnet can be used to push or pull an object.
- Sort components of soil by size, texture, and color.
- Describe a variety of natural sources of water.
- Identify how rocks, soil, and water are used to make products.
- Record weather information.
- Record changes in the appearance of objects in the sky.
- Identify characteristics of the seasons of the year and day and night.
- Demonstrate that air is all around us and observe that wind is moving air.
- Classify living and nonliving things based upon whether they have basic needs and produce offspring.
- Analyze examples of interdependence. Investigate how the external characteristics of an animal are related to where it lives, how it moves, and what it eats.
- Record life cycles of animals.
- Compare ways that young animals resemble their parents.
- Compare the parts of plants.

## Social Studies

- Identify the customs associated with national holiday: Constitution Day, President’s Day, Veterans Day, and Independence Day.
- Understand the contribution of historical figures to the community, state, and nation.
- Understand the concept of location, the physical and human characteristics of place and the influence of geographic location on human characteristics.
- Identify authority figures and understand the importance of rules in the home, school, and community.
- Identify and describe basic human needs of food, clothing, and shelter and the way people meet these needs such as having a job.
- Identify examples of choices families make as producers and consumers.
- Understand the characteristics of good citizenship.

- Identify the customs, symbols, holidays, celebrations, pledges, and traditions that represent the family and American beliefs.
- Name and describe examples of technology in the home and school.

## Second grade students will:

### Language Arts

- Communicate ideas effectively while speaking clearly at the appropriate pace and using the conventions of language.
- Decode and write multisyllabic words.
- Identify and read high-frequency words accurately and fluently.
- Recognize different characteristics of genres such as: folktales, fables, and fairy tales; visual patterns and structures in poetry; characters, dialogue, and setting in drama; features and graphics to locate and gain information in informational/nonfiction texts; and, characteristics of persuasive text.
- Discuss the author's purpose for writing a text, including the meaning, theme, and central idea.
- Analyze the deeper meaning of texts read independently using: plot elements, main characters' internal and external traits, and the importance of the setting; and, organizational patterns such as chronological order and cause and effect stated explicitly in nonfiction texts.
- Use a range of reading skills with greater complexity in independent reading to understand the author's message. These skills will include establishing purpose, generate questions, making predictions, creating mental images, monitoring comprehension, making connections, making inferences, evaluating details to determine key ideas, and making connections
- Use the writing process to compose text (personal experiences, expository, procedural, and persuasive) while applying the conventions of academic language.
- Ask open-ended research and develop a plan for answering them.

### Math

- Develop and understanding of the base-10 place value system
- Making comparisons with the place value system up to 1,200
- Recognize and represent fractional units and communicates how they are used to name parts of a whole identifying examples and non-examples of halves, fourths, and eighths.
- Recall basic facts to add and subtract within 20 with automaticity.
- Solving problems with addition and subtraction within 1,000 using mental strategies and algorithms based on knowledge of place value and properties of operation.
- Identify situations in which addition and subtraction are useful to solve problems with multi-digit numbers.
- Determine the value of a set of coins up to one dollar.
- Building foundations for multiplication using relationships between skip counting and equal groups to represent the addition or subtraction of equivalent sets.
- Identify and apply number patterns within the properties of numbers and operations to describe number relationships algebraically.
- Analyze attributes of two-dimensional shapes and three-dimensional solids to develop generalizations about their properties.
- Select and use units to describe length, area, and time.

- Organize data using bar graphs and pictographs to make it useful for interpreting information and solving problems.
- Learn the importance of managing one’s financial resources effectively for lifetime financial security.
- Apply math to solve problems connected to everyday experiences.
- Communicate about math using formal and informal mathematical language.
- Display, explain, and justify mathematical ideas and arguments.
- Communicate mathematical ideas, reasoning, and their implications using multiple representations.

## Science

- Demonstrate safe practices.
- Plan and conduct simple descriptive investigations.
- Classify matter by physical properties.
- Compare changes in materials caused by heating and cooling.
- Demonstrate that things can be done to materials to change their physical properties.
- Combine materials that when put together can do things that they cannot do by themselves and justify the selection of those materials.
- Compare patterns of movement of objects.
- Investigate the effects on objects by increasing or decreasing amounts of light, heat, and sound energy.
- Distinguish between natural and manmade resources.
- Compare rocks by size, texture, and color.
- Compare the properties of natural sources of freshwater and saltwater.
- Graph weather information to identify patterns in the data.
- Identify the importance of weather and seasonal information to make choices in clothing, activities, and transportation.
- Record patterns of objects in the sky.
- Identify factors in the environment that affect growth and behavior of living things.
- Identify the basic needs of plants and animals.
- Compare the ways living organisms depend on each other and on their environments.
- Compare how the physical characteristics plants and animals help them meet their basic needs.
- Investigate some of the unique stages that in- sects undergo during their life cycle.

## Social Studies

- Identify and understand the historical significance of landmarks and celebrations associated with national holidays: Memorial Day, Veterans Day, and Thanksgiving.
- Understand the contribution of historical figures to the community, state, and nation.

- Understand the concept of location, the physical and human characteristics of place and the influence of geographic location on human characteristics.
- Identify authority figures and understand the importance of rules in the home, school, and community.
- Identify and describe basic human needs of food, clothing, and shelter and the way people meet these needs such as having a job.
- Identify examples of choices families make as producers and consumers.
- Understand the role of government and the role of public officials.
- Understand the characteristics of good citizenship.
- Identify the customs, symbols, holidays, celebrations, pledges, and traditions that represent the family and American beliefs.
- Name and describe examples of technology in the home and school.

## Third grade students will:

### Language Arts

- Speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively.
- Demonstrate and apply phonetic knowledge while reading and writing.
- Recognize different characteristics of genres such as: folktales, fables, fairy tales, legends, and myths; rhyme scheme, sound devices, and structural elements such as stanzas in poetry; characters, dialogue, setting, and acts in drama; features such as sections, tables, graphs, timelines, bullets, numbers, and bold and italicized font to support understanding in informational/nonfiction texts; and, characteristics and structures of argumentative text.
- Discuss the author's purpose for writing a text, including the meaning, theme, and central idea.
- Analyze the deeper meaning of texts read independently using: plot elements, relationships among the major and minor characters, and the influence of the setting on the plot; and, organizational patterns such as cause and effect and problem and solution in nonfiction texts.
- Use a range of reading skills with greater complexity in independent reading to understand the author's message. These skills will include establishing purpose, generate questions, making predictions, creating mental images, monitoring comprehension, making connections, making inferences, evaluating details to determine key ideas, and making connections.
- Write legibly in cursive script with spacing between words in a sentence.
- Use the writing process to compose text (personal experiences, procedural and persuasive) while applying the conventions of academic language.
- Ask open-ended research questions and develop a plan for answering them.

### Math

- Represent and compare whole numbers and understand the relationships related to place value up to 100,000.
- Describe the mathematical relationships found in the base-10 place value system.
- Represent fractions greater than zero and less than or equal to one with denominators of 2, 3, 4, 6, and 8.
- Compose and decompose fractions with a numerator greater than zero and less than or equal to the denominator.
- Represent and explain why two fractions are equivalent using concrete/pictorial models, numbers lines, and numerical representations.
- Compare two fractions having the same denominator in problems by reasoning about their size and justifying a conclusion.
- Solve with fluency one-step and two-step problems involving addition and subtraction within 1,000 using multiple strategies.
- Determine the value of a collection of coins and bills.
- Represent multiplication facts using a variety of approaches such as repeated addition, equal-sized groups, arrays, area models, equal jumps on a number line, and skip counting.
- Use a variety of strategies to multiply and two-digit by one-digit numbers.

- Determine a quotient using the relationship between multiplication and division by connection partitioning into equal shares or a set of objects shared equally.
- Solve one-step and two-step problems involving multiplication and division within 100 using a variety of strategies.
- Analyze attributes of two-dimensional and three-dimensional geometric figures to develop generalizations about their properties.
- Solve problems by collecting, organizing, displaying, and interpreting data.
- Learn to manage one's financial resources effectively for lifetime financial security by understanding capital/labor income, scarcity of resources, and various savings plans.
- Apply math to solve problems connected to everyday experiences.
- Communicate about math using formal and informal mathematical language.
- Display, explain, and justify mathematical ideas and arguments.
- Communicate mathematical ideas, reasoning, and their implications using multiple representations.

## Science

- Demonstrate safe practices during classroom and field investigations.
- Plan and conduct simple descriptive investigations.
- Measure, test, and record physical properties of matter.
- Classify samples of matter as solids, liquids, and gases and demonstrate that solids have a definite shape and that liquids and gases take the shape of their container.
- Predict, observe, and record changes in the state of matter caused by heating or cooling.
- Explore that a mixture is created when two materials are combined.
- Explore different forms of energy in everyday life.
- Observe forces such as magnetism and gravity acting on objects.
- Demonstrate how position and motion can be changed by pushing and pulling object.
- Describe the Sun as a star composed of gases that provides light and thermal energy.
- Identify the planets in Earth's solar system and their position in relation to the Sun.
- Construct models that demonstrate the relationship of the Sun, Earth, and Moon.
- Explore the characteristics of natural resources that make them useful in products and materials and how resources may be conserved.
- Explore how soils are formed by weathering of rock and the decomposition of plant and animal remains.
- Investigate rapid changes in Earth's surface.
- Record and compare day-to-day weather changes.
- Describe the physical characteristics of environments and how they support populations and communities of plants and animals within an ecosystem.
- Describe the flow of energy in a food chain and predict how changes in a food chain affect the

- ecosystem.
- Describe environmental changes such as floods and droughts where some organisms thrive, and others perish or move to new locations.
- Explore how structures and functions of plants and animals allow them to survive in a particular environment.
- Investigate and compare how animals and plants undergo a series of orderly changes in their diverse life cycles.

## Social Studies

- Understand the contributions of individuals and events, and ideas that have influenced the history of the community, state, and nation.
- Understand how humans adapt to or modify the physical environment.
- Understand the concept of location, distance and direction on maps and globes.
- Identify authority figures and understand the importance of rules in the home, school, and community.
- Identify and describe basic human needs of food, clothing, and shelter and the way people meet these needs such as having a job.
- Understand the concept of supply and demand and the relationship to the free enterprise system.
- Identify examples of choices families make as producers and consumers.
- Understand the role of government and the role of public officials.
- Understand the important ideas in historical documents.
- Understand the characteristics of good citizenship.
- Identify the customs, symbols, holidays, celebrations, pledges, and traditions that represent the family and American beliefs.
- Name and describe examples of technology in the home and school.

## Fourth grade students will:

### Language Arts

- Speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively.
- Demonstrate and apply phonetic knowledge while reading and writing.
- Recognize and explain different characteristics of genres such as: folktales, fables, legends, myths, and tall tales; figurative language, such as simile, metaphor, and personification in poetry; character tags, acts, scenes, and stage directions in drama; features such as pronunciation guides and diagrams to support understanding in informational/nonfiction texts; and, characteristics and structures of argumentative text.
- Discuss the author's purpose for writing a text, including the meaning, message, theme, and central idea.
- Analyze the deeper meaning of texts using: plot elements, interactions of the characters and the changes they undergo, and the influence of the setting, including historical and cultural settings on the plot; and, organizational patterns such as compare and contrast in nonfiction texts.
- Use a range of reading skills with greater complexity in independent reading to understand the author's message. These skills will include establishing purpose, generate questions, making predictions, creating mental images, monitoring comprehension, making connections, making inferences, evaluating details to determine key ideas, and making connections.
- Use the writing process to compose text (literary, informational, argumentative, and correspondence compositions) while applying the conventions of academic language.
- Ask open-ended research questions and develop a plan of answering them: determine, locate, and explore the full range of relevant sources addressing that research question; evaluate and synthesize collected information.

### Math

- Represent, compare, and order whole numbers and decimals and understand relationships related to place value from hundredths up to 1,000,000,000.
- Decompose a fraction in more than one way into a sum of fractions with the same denominator using concrete and pictorial models and recording results with symbolic representations.
- Determine if two fractions are equivalent.
- Compare to fractions with different numerators and different denominators.
- Add and subtract fractions with equal denominators.
- Represent fractions and decimals to hundredths on a number line.
- Use strategies and methods for whole number computations and decimal sums and differences to solve problems with efficiency and accuracy.
- Use strategies and algorithms, including the standard algorithm, to multiply up to a four-digit number by a one-digit number and to multiply a two-digit number by a two-digit number.
- Represent problems using an input-output table and numerical expressions to generate a number pattern that follows a given rule representing the relationship of the values in the resulting sequence and their position in the sequence.
- Develop algebraic concepts of expressions and equations.

- Analyze geometric attributes in order to develop generalizations about their properties.
- Solve problems involving angles less than or equal to 180 degrees.
- Select appropriate customary and metric units, strategies, and tools to solve problems involving measurement.
- Solve problems by collecting, organizing, displaying, and interpreting data.
- Learn to manage one's financial resources effectively for lifetime financial security by understanding variable expenses, profit, and savings options.
- Apply math to solve problems connected to everyday experiences.
- Communicate about math using formal and informal mathematical language.
- Display, explain, and justify mathematical ideas and arguments.
- Communicate mathematical ideas, reasoning, and their implications using multiple representations.

## Science

- Demonstrate safe practices during classroom and outdoor investigations.
- Plan and implement investigations.
- Compare, and contrast physical properties of matter.
- Compare and contrast a variety of mixtures.
- Demonstrate that electricity travels in a closed path, creating an electrical circuit.
- Differentiate between conductors and insulators of thermal and electrical energy.
- Differentiate among forms of energy.
- Design a descriptive investigation to explore the effect of force on an object.
- Predict changes in weather.
- Describe the water cycle and explain the role of the Sun in this process.
- Classify Earth's renewable resources and the importance of conservation.
- Analyze data to identify sequences and predict patterns of change.
- Examine properties of soils.
- Identify causes of the slow changes to Earth's surface.
- Compare life cycles in living organisms.
- Describe examples of traits that are inherited and behaviors that are learned.
- Investigate the needs of producers and consumers.
- Describe the flow of energy through food webs and predict effects caused by changes in the ecosystem.
- Explore how structures and functions enable organisms to survive in their environment.

## Social Studies

- Study the history of Texas from the early beginnings to the present within the context of influences of the Western Hemisphere.
- Discuss important issues, events, and individuals of the 19<sup>th</sup> and 20<sup>th</sup> centuries.
- Understand the regions in Texas and the Western Hemisphere and how humans adapt to variations in the physical environment that result from human activity and from physical features.
- Understand the concept of an economic system including location, distribution, and patterns of economy.
- Understand early settlement in Texas and how people organized governments in different ways during the early development of Texas.
- Name and describe examples of technology in the home and school.

## Fifth grade students will:

### Language Arts

- Give an organized presentation employing eye-contact, speaking rate, volume, enunciation, natural gestures, and conventions of language to communicate ideas effectively.
- Demonstrate and apply phonetic knowledge while reading and writing.
- Recognize and explain different characteristics of genres such as: folktales, fables, legends, myths, and tall tales; use of sound devices and figurative language and distinguish between the poet and the speaker in poetry; character tags, acts, scenes, and stage directions in drama; features such as insets, timelines, and sidebars to support understanding in informational/nonfiction texts; and, characteristics and structures of argumentative text.
- Discuss the author's purpose for writing a text, including the meaning, message, theme, and central idea.
- Analyze the deeper meaning of texts using: plot elements, relationships of and conflicts among the characters, and the influence of the setting, including historical and cultural settings on the plot; and, organizational patterns such as compare and contrast in nonfiction texts.
- Use a range of reading skills with greater complexity in independent reading to understand the author's message. These skills will include establishing purpose, generate questions, making predictions, creating mental images, monitoring comprehension, making connections, making inferences, evaluating details to determine key ideas, and making connections.
- Use the writing process to compose text (literary, informational, argumentative, and correspondence compositions) while applying the conventions of academic language.
- Ask open-ended research questions and develop a plan of answering them, determine, locate, and explore the full range of relevant sources addressing that research question, systematically record information, evaluate and synthesize collected information.
- Organize and present ideas and information according to the purpose of the research and audience. Synthesize the research into a written or oral presentation.

### Math

- Represent, compare, and order positive rational numbers and understand relationships as related to place value.
- Use strategies and methods for positive rational number computations in order to solve problems with efficiency and accuracy.
- Estimate to determine solutions to mathematical and real-world problems involving addition, subtraction, multiplication, or division.
- Solve with proficiency for quotients of up to a four-digit dividend by a two-digit divisor using strategies and the standard algorithm.
- Solve for products of decimals to the hundredths, including situations involving money, using strategies based on place-value understandings, properties of operations, and the relationship to the multiplication of whole numbers.
- Represent and solve addition and subtraction of fractions with unequal denominators referring to the same whole using objects and pictorial models and properties of operations.
- Divide whole numbers by unit fractions and unit fractions by whole numbers.

- Develop concepts of expressions and equations.
- Identify prime and composite numbers.
- Represent and solve multi-step problems involving the four operations with whole numbers using equations with a letter standing for the unknown quantity.
- Use concrete objects and pictorial models to develop the formulas for the volume of a rectangular prism, including the special form for a cube ( $V = l \times w \times h$ ,  $V = s \times s \times s$ , and  $V = Bh$ ).
- Classify two-dimensional figures in a hierarchy of sets and subsets using graphic organizers based on their attributes and properties.
- Understand, recognize, and quantify volume.
- Select appropriate units, strategies, and tools to solve problems involving measurement.
- Solve problems by collecting, organizing, displaying, and interpreting data.
- Learn to manage one's financial resources effectively for lifetime financial security by understanding taxes, difference between gross and net income, different modes of payment, and establishing and maintaining a budget.
- Apply math to solve problems connected to everyday experiences.
- Communicate about math using formal and informal mathematical language.
- Display, explain, and justify mathematical ideas and arguments.
- Communicate mathematical ideas, reasoning, and their implications using multiple representations.

## Science

- Demonstrate safe practices and the use of safety equipment.
- Implement single experimental investigations.
- Classify matter based on measurable, testable, and observable physical properties.
- Demonstrate that some mixtures maintain physical properties of their ingredients.
- Identify changes that can occur in the physical properties of the ingredients of solutions.
- Explore the uses of energy.
- Demonstrate that light travels in a straight line until it strikes an object and is reflected or travels through one medium to another and is refracted.
- Demonstrate that the flow of electricity in closed circuits can produce light, heat, and sound.
- Design a simple experimental investigation that tests the effect of force on an object.
- Identify and compare the physical characteristics of the Sun, Earth, and Moon.
- Demonstrate that Earth rotates on its axis once approximately every 24 hours causing the day/night cycle and the apparent movement of the Sun across the sky.
- Explain how the Sun and the ocean interact in the water cycle.
- Differentiate between weather and climate.
- Recognize how landforms are the result of changes to Earth's surface by wind, water, or ice.
- Explore the processes that led to the formation of sedimentary rocks and fossil fuels.

- Identify fossils as evidence of past living organisms and the nature of the environments at the time using models.
- Observe the way organisms live and survive in their ecosystem by interacting with the living and nonliving components.
- Describe the flow of energy within a food web.
- Predict the effects of changes in ecosystems caused by living organisms.
- Differentiate between inherited traits of plants and animals and learned behaviors.
- Compare the structures and functions of different species that help them live and survive in a specific environment.

## Social Studies

- Learn about the history of the United States from its early beginnings to the present with a focus on colonial times through the 20<sup>th</sup> century.
- Understand the location and geographical characteristics of regions and patterns of settlement.
- Understand the benefits of the free enterprise system and patterns of work, the impact of supply and demand.
- Understand how people organize governments and the importance of our founding documents, identifying the roots of representative government of the U.S. including the important ideas in the Declaration of Independence and the Constitution.
- Examine the importance of effective leadership of a democratic society, appreciate fundamental rights guaranteed in the Bill of Rights, and describe customs of various racial, ethnic, and religious groups.

## Sixth grade students will:

### Language Arts

- Use comprehension skills to listen attentively to others in formal and informal settings. (moved the end of the first sentence to a new bullet point)
- Students speak clearly and to the point, using conventions of language.
- Use a range of reading skills with greater complexity in both assigned and independent reading to understand the author's message. These skills will include establishing purpose; asking literal, interpretive, evaluative, and universal questions; monitoring comprehension; making inferences; summarizing, paraphrasing and synthesizing and making connections between and across multiple texts of various genres.
- Understand, make inferences, and draw conclusions about varied genres including poetry, fiction, expository, and procedural texts.
- Follow multi-tasked instructions to complete a task, solve a problem, or perform procedures.
- Use the writing process to compose text (personal experiences, procedural and persuasive) while applying the conventions of academic language.
- Ask open-ended research questions and develop a plan of answering them; determine, locate, and explore the full range of relevant sources addressing that research question: systematically record information, evaluate and synthesize collected information.
- Organize and present ideas and information according to the purpose of the research and audience. Synthesize the research into a written or oral presentation.

### Math

- Classify whole numbers, integers, and rational numbers using a visual representation.
- Identify a number, its opposite, and its absolute value.
- Order a set of rational numbers arising from mathematical and real-world contexts.
- Recognize that dividing by a rational number and multiplying by its reciprocal result in equivalent values.
- Determine, with and without computation, whether a quantity is increased or decreased when multiplied by a fraction, including values greater than or less than one.
- Represent integer operations with concrete models and connect the actions with the models to standardized algorithms.
- Develop an understanding of proportional relationships in problem situations.
- Compare two rules verbally, numerically, graphically, and symbolically in the form of  $y = ax$  or  $y = x + a$  in order to differentiate between additive and multiplicative relationships.
- Apply qualitative and quantitative reasoning to solve prediction and comparison of real-world problems involving ratios and rates.
- Represent ratios and percent with concrete models, fractions, and decimals.
- Generate equivalent forms of fractions, decimals, and percent using real-world problems, including problems that involve money.
- Solve problems involving proportional relationships.

- Represent mathematical and real-world problems involving ratios and rates using scale factors, tables, graphs, and proportions.
- Solve real-world problems to find the whole given a part and the percent, to find the part given the whole and the percent, and to find the percent given the part and the whole, including the use of concrete and pictorial models.
- Use multiple representations to describe algebraic relationships.
- Generate equivalent numerical expressions using order of operations, including whole number exponents and prime factorization.
- Generate equivalent expressions using the properties of operations: inverse, identity, commutative, associative, and distributive properties.
- Determine solutions for problems involving the area of rectangles, parallelograms, trapezoids, and triangles and volume of right rectangular prisms where dimensions are positive rational numbers.
- Use equations and inequalities to represent situations and solve problems.
- Use numerical or graphical representations to analyze problems.
- Use numerical or graphical representations to solve problems.
- Learn to manage one's financial resources effectively for lifetime financial security by understanding the differences between debit and credits cards, why it is important to establish a positive credit history, and the understanding of a credit report.
- Apply math to solve problems connected to everyday experiences.
- Communicate about math using formal and informal mathematical language.
- Display, explain, and justify mathematical ideas and arguments.
- Communicate mathematical ideas, reasoning, and their implications using multiple representations.

## Science

- Demonstrate safe practices during laboratory and field investigations.
- Calculate density of an unknown substance.
- Know that an element is a pure substance represented by a chemical symbol and that a compound is a pure substance represented by a chemical formula.
- Recognize that a limited number of the many known elements comprise the largest portion of solid Earth, living matter, oceans, and the atmosphere.
- Compare metals, nonmetals, and metalloids using physical properties.
- Identify the formation of a new substance by using the evidence of a possible chemical change.
- Describe the changes in position, direction, and speed of an object when acted upon by unbalanced forces.
- Calculate average speed using distance and time measurements.
- Measure and graph changes in motion.
- Investigate how inclined planes can be used to change the amount of force to move an object.
- Demonstrate energy transformations.
- Compare and contrast potential and kinetic energy.

- Research and discuss the advantages and disadvantages of using coal, oil, natural gas, nuclear power, biomass, wind, hydropower, geothermal, and solar resources.
- Investigate methods of thermal energy transfer.
- Verify through investigations that thermal energy moves in a predictable pattern from warmer to cooler until all the substances attain the same temperature such as an ice cube melting.
- Build a model to illustrate the compositional and mechanical layers of Earth.
- Identify the major tectonic plates and describe how plate tectonics causes major geological events.
- Test the physical properties of minerals.
- Classify rocks by the processes of their formation.
- Understand that gravity is the force that governs the motion of our solar system.
- Describe the physical properties, locations, and movements of the Sun, planets, moon, meteors, asteroids, and comets.
- Describe the history and future of space exploration.
- Understand that all organisms are comprised of one or more cells and whether a cell is prokaryotic or eukaryotic.
- Identify the basic characteristics of organisms that classify them in the currently recognized kingdoms.
- Recognize that the broadest taxonomic classification of living organisms.
- Describe biotic and abiotic parts of an ecosystem and diagram the levels of organization within an ecosystem.

## Social Studies

- Study people and places of the contemporary world including location and geographical characteristics.
- Understand the relationships among cultures.
- Understand economic and governmental systems including limited and unlimited governments and citizenship.
- Understand the relationship of technology and science as it affects the development of societies.
- Apply critical thinking skills to understand point of view and conflict through a study of current events and the impact history has had on those events.

## Seventh grade students will:

### Language Arts

- Use genre characteristics and craft to compose multiple texts that are legible, meaningful, and for a variety of purposes.
- Utilize the workshop approach to writing to practice writing, to be invested in a topic, to take control of own learning, and to think of themselves as writers
- Understand how to use the conventions of academic language when speaking and writing.
- Use a range of reading skills to develop and deepen comprehension of increasingly complex texts
- Self-select text and read independently for a sustained period of time.
- Engage in meaningful and respectful discussion with peers.
- Utilize the inquiry process to explore, access and gain understanding for a variety of purposes.

### Math

- Add, subtract, multiply, and divide rational numbers fluently to solve problems in various situations.
- Use mathematical processes to acquire and demonstrate mathematical understanding in multiple situations.
- Model and solve one-variable, two-step equations and inequalities and represent solutions on the number line.
- Write and solve equations using geometry concepts, including the sum of the angles in a triangle, and angle relationships.
- Solve problems involving ratios, rates, percent increase, percent decrease, and financial literacy applications of percent.
- Represent constant rates of change in mathematical and real-world problems given pictorial, tabular, verbal, numeric, graphical, and algebraic representations, including  $d = rt$ .
- Calculate unit rates in mathematical and real-world problems and find the constant of proportionality,  $k = \frac{y}{x}$ .
- Represent linear relationships using verbal descriptions, tables, graphs, and equations that simplify to the form  $y = mx + b$ .
- Generalize the characteristics of similarity and solve mathematical and real-world problems involving similar shapes and scale drawings.
- Find the circumference and area of circles.
- Find the area of composite figures containing combinations of rectangles, squares, parallelograms, trapezoids, triangles, semicircles, and quarter circles.
- Solve problems involving the lateral and total surface area of a rectangular prism, rectangular pyramid, triangular prism, and triangular pyramid by determining the area of the shape's net.
- Solve problems involving the volume of rectangular prisms, triangular prisms, rectangular pyramids, and triangular pyramids.
- Represent sample spaces for simple and compound events using lists and tree diagrams.

- Determine experimental and theoretical probabilities to simple and compound events using data and sample spaces.
- Make predictions and determine solutions using experimental data or theoretical probability for simple and compound events.
- Make comparisons between the probabilities of simple experiments.
- Solve problems using data represented in bar graphs, dot plots, and circle graphs.
- Compare two groups of numeric data using comparative dot plots or box plots by comparing their shapes, centers, and spreads.
- Calculate the sales tax for a given purchase or income tax for earned wages.
- Calculate and compare simple interest and compound interest earnings.
- Analyze and compare monetary incentives, including sales, rebates, and coupons.

## Science

- Demonstrate safe practices during investigations.
- Plan and implement comparative and descriptive investigations.
- Recognize the components of cell theory.
- Differentiate between structure and function in plant and animal cell organelles.
- Recognize levels of organization in plants and animals.
- Investigate how organisms respond to external and internal stimuli.
- Demonstrate and illustrate forces that affect motion in organisms.
- Identify the main functions of the systems of the human organism.
- Distinguish between physical and chemical changes in matter.
- Illustrate the transformation of energy within an organism.
- Define heredity as the passage of genetic instructions from one generation to the next generation.
- Compare the results of uniform or diverse offspring from asexual or sexual reproduction.
- Recognize that inherited traits of individuals are governed in the genetic material.
- Identify some changes in genetic traits through natural selection and selective breeding.
- Investigate how internal structures of organisms have adaptations that allow specific functions.
- Explain variation within a population or species that enhance their survival.
- Examine organisms or their structures and use dichotomous keys for identification.
- Describe how biodiversity contributes to the sustainability of an ecosystem.
- Describe how different environments support different varieties of organisms.
- Recognize that radiant energy is transformed into chemical energy. Diagram the flow of energy through living systems.
- Predict how catastrophic events impact ecosystems.
- Analyze the effects of weathering, erosion, and deposition on the environment in ecoregions of Texas.

- Model the effects of human activity on groundwater and surface water in a watershed.
- Describe the role of ecological succession.
- Analyze the characteristics of objects in our solar system that allow life to exist.
- Identify the accommodations that enabled manned space exploration.

### Social Studies – Texas History

- Understand the issues and events in the history of Texas from early times to the present.
- Understand geographic influence on Texas history.
- Demonstrate an understanding of economic and social influences on Texas history.
- Demonstrate an understanding of political influences on Texas history.
- Use critical thinking to analyze social studies information.

## Eighth grade students will:

### Language Arts

- Use genre characteristics and craft to compose multiple texts that are legible, meaningful, and for a variety of purposes.
- Utilize the workshop approach to writing to practice writing, to be invested in a topic, to take control of own learning, and to think of themselves as writers.
- Understand and use the conventions of academic language when speaking and writing.
- Use a range of reading skills to develop and deepen comprehension of increasingly complex texts.
- Self-select text and read independently for a sustained period of time.
- Engage in meaningful and respectful discussion with peers.
- Utilize the inquiry process to explore, access and gain understanding for a variety of purposes.

### Math

- Approximate the value of an irrational number, including  $\pi$  and square roots of numbers less than 225, and order real numbers arising from mathematical and real-world contexts.
- Convert between standard decimal notation and scientific notation.
- Model and solve one-variable equations with variables on both sides of the equal sign to represent mathematical and real-world problems involving rational numbers.
- Write one-variable equations or inequalities with variables on both sides of the equal sign that represent problems using rational number coefficients and constants.
- Write a corresponding real-world problem when given a one-variable equation or inequality with variables on both sides of the equal sign using rational number coefficients and constants.
- Generalize the properties of congruence in rotations, reflections, translations, and dilations of two-dimensional shapes on a coordinate plane and identify which transformations preserve congruence.
- Explain the effect of translations, reflections over the x- or y-axis, and rotations of  $90^\circ$ ,  $180^\circ$ ,  $270^\circ$ , and  $360^\circ$  on a coordinate plane.
- Use an algebraic representation to explain the effect of a given positive rational scale factor applied to two-dimensional figures on a coordinate plane with the origin as the center of dilation.
- Compare and contrast the attributes of a shape and its dilation on a coordinate plane and model the effect on linear and area measurements of dilated two-dimensional shapes.
- Use previous knowledge of surface area to make connections to solve problems for lateral and total surface area involving rectangular prisms, triangular prisms, and cylinders.
- Describe the volume formula  $V = Bh$  of a cylinder in terms of its base area and its height, and solve problems involving the volume of cylinders, cones, and spheres.
- Use models and diagrams to explain the Pythagorean Theorem, and use the Pythagorean Theorem and its converse to solve problems including distance on the coordinate plane.
- Use informal arguments to create general observations when parallel lines are cut by a transversal, the angle sum and exterior angle of triangles, and criterion for similarity of triangles.

- Use similar right triangles to develop slope,  $m$ , as the rate change between  $y$ -values to the  $x$ -values,  $\frac{y_2 - y_1}{x_2 - x_1}$ .
- Graph proportional relationships, interpreting the unit rate as the slope of the line that models the relationship.
- Represent and distinguish between linear proportional situations,  $y = kx$  and linear non-proportional situations,  $y = mx + b$  where  $b \neq 0$ , using tables, graphs, and equations.
- Solve problems involving direct variation.
- Identify functions using sets of ordered pairs, tables, mappings, and graphs.
- Write an equation in the form  $y = mx + b$  to model a linear relationship between two quantities using verbal, numerical, tabular, and graphical representations.
- Use a trend line that approximates the linear relationship between bivariate sets of data to make predictions.
- Calculate the total cost of repaying a loan using an online calculator.
- Calculate and compare simple interest and compound interest earnings and explain the advantages and disadvantages of different payment methods.
- Estimate the cost of a two-year and four-year college education and devise a periodic savings to contribute to the total cost of attendance for at least the first year of college.

## Science

- Demonstrate safe practices during investigations.
- Investigate how organisms and populations depend on and may compete for biotic factors.
- Explore short- and long-term environmental changes.
- Recognize human dependence on ocean systems and the effect of human activities on the systems.
- Recognize that the Sun provides the energy that drives convection producing winds.
- Identify how global patterns of atmospheric movement and oceans influence weather systems.
- Model how the tilted Earth rotates on its axis and revolves around the Sun.
- Predict the sequence of events in the lunar cycle.
- Relate the positions of the Moon and Sun to their effect on ocean tides.
- Describe the evidence that supports plate tectonic theory and relate plate tectonics to the formation of crustal features.
- Interpret topographic maps and satellite views.
- Describe components of the universe and use models for classification.
- Identify how wavelengths are used to gain information about components of the universe.
- Recognize that the Sun is a medium-sized star located in a spiral arm of the Milky Way galaxy and that the Sun is many thousands of times closer to Earth than any other star.
- Research how scientific data are used as evidence to describe the origin of the universe.
- Describe the structure of atoms.

- Identify what protons determine and valence electrons determine about an element.
- Interpret the arrangement of the Periodic Table to explain how properties are used to classify elements.
- Recognize that chemical formulas are used to identify substances and determine the number of atoms of each element in chemical formulas containing subscripts.
- Investigate how evidence of chemical reactions indicates that new substances are formed and how that relates to the law of conservation of mass.
- Differentiate between speed, velocity, and acceleration.
- Demonstrate and calculate how unbalanced forces change the speed or direction of an object's motion.
- Investigate and describe applications of Newton's three laws of motion.

### Social Studies – United States History

- Understand the issues and events in the history of the United States from the early colonial period through Reconstruction.
- Describe the physical characteristics of the United States and their impact on settlement patterns past and present.
- Analyze various economic and social factors that have influenced the development of America.
- Examine American beliefs and principles reflected in the U. S. Constitution and historical documents.
- Examine the rights and responsibilities of citizens of the United States.
- Evaluate the impact of scientific discoveries and technological innovations on the development of the United States.
- Use critical thinking skills to analyze Social Studies information.