

Conroe ISD Parent Curriculum Guide

Prek - 8th Grade



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Introduction

Conroe Independent School District offers a comprehensive educational program for all students. In addition to the core classes of English and 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 diverse 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 eligibility requirements, and/or parent and teacher referrals.

All campuses offer Art and Music taught by degreed and certified specialists on a rotation basis. This rotation varies according to campus size/staffing and schedules. Students have competitive opportunities through Art and performance opportunities through Music. Intermediate grade students can choose from Band, Orchestra, Choir, Art, and some campuses offer 5th Grade General Music.

In 7th grade and beyond, parents should refer to the Program of Studies on the CISD Website, as the choices are extensive and campus dependent.

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 a guide to assist your child as he/she progresses through each grade level.

Pre-Kindergarten

Pre-Kindergarten students will:

Social and Emotional Development

- Self regulation: regulate own behavior with occasional reminders or assistance from teachers.
- Emotional control: able to increase or decrease intensity of emotions with some guidance from adults.
- Communication skills: use effective verbal and nonverbal communication skills with teachers/adults.
- Role in the community: assume various roles and responsibilities necessary in the classroom community.

Language Arts

- Blend syllables into words.
- Segment syllable from a word.
- Recognize rhyming words (III.B.6).
- Blend onsets, rimes, and phonemes (Only blending phonemes applies for bilingual).
- Name 20 upper case letters.
- Name 20 lower case letters.
- Produce at least 20 distinct letter sounds.
- Retell a story after it is read aloud.
- Describe information related to a nonfiction (factual) book.
- Distinguish between elements of print including letters, words, and pictures.
- Independently write to communicate his/her ideas using marks, letters, or symbols to record language and share meaning.
- Discuss, contribute ideas, interact, and contribute ideas and provide suggestions to revise and edit class-made drafts.
- Write some letter-sound correspondence of beginning and ending sounds.

Math

- Use words to count by memory from 1 to 30.
- Count each object one to one from 1 to 10.
- Count up to 10 items and indicate how many items were counted.
- Orally identify objects represented from 1 to 5.
- Recognize numerals 0 to 9.
- Join up to 5.
- Separate within 0 to 5.
- Sort objects.

Science

- Engage in scientific investigation and reasoning.

Social Studies

- Make connections to self and the world around them.

Fine Arts

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

Physical Development

- Demonstrates coordination and balance.
- Shows small-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 their own ideas.

Kindergarten

Kindergarten students will:

Language Arts

- Orally identifies and produces rhymes.
- Identify syllables in spoken words.
- Blend onsets, rimes, and phonemes to form simple words.
- Segment one-syllable words.
- Identify and match the common sounds that letters represent.
- Decode words by using letter-sound relationships.
- Identify and read high-frequency words.
- Demonstrate and apply spelling knowledge.
- Demonstrate concepts about print (letter, word and sentence boundaries).
- Identify uppercase and lowercase letters.
- Form uppercase and lowercase letters.
- Retell texts.
- Identify and describe the main character(s) in literary texts.
- Recognize titles and simple graphics to gain information in informational texts.
- Generate ideas for writing.
- Develop drafts.

Math

- Understand 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.
- Understand 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.
- Compare 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

- Know that objects have properties and patterns.
- Know that energy, force, and motion are related and part of everyday life.
- Know that there are recognizable patterns in the natural world and among the objects in the sky.
- Know that plants and animals have basic needs and depend on the living and nonliving things around them for survival.
- Know that organisms resemble their parents and have structures and processes that help them survive within their environment.

Social Studies

- Identify holidays and historical figures.
- Understand the concepts of location and physical/human characteristics of place.
- Understand the difference between human needs and wants, how they are met and the value of jobs.
- Understand the purpose of rules and role of authority figures and responsibility of citizens.
- Understand the similarities and differences among individuals.

Technology

- Use creative thinking to develop digital products.
- Collaborate and communicate locally and globally using digital tools and resources.
- Develop skills to research topics using digital resources.
- Use word processors, graphic organizers, charts, and multimedia applications.
- Practice safe and responsible behavior online.
- Practice opening and saving files, printing, and basic keyboard skills.

First Grade

First grade students will:

Language Arts

- Orally produce a series of rhyming words.
- Distinguish between long and short vowels.
- Manipulate phonemes within base words.
- Decode words by applying phonetic knowledge.
- Identify and read high-frequency words.
- Retell texts.
- Describe the main character(s) and the reason(s) for their actions.
- Describe plot elements.
- Recognize characteristics and structures of informational text.
- Discuss the author's purpose for writing texts.
- Plan a draft by generating ideas.
- Develop drafts in oral, pictorial, or written form.

Math

- Apply place value to numbers up to 120.
- Use relationships within the numeration system to understand the sequential order of counting numbers and their relative magnitude.
- Solve 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.
- Compose and decompose two-dimensional shapes and three-dimensional solids.
- Name, identify, and describe basic two-dimensional shapes and three-dimensional solids.
- Name and identify U.S. 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 nonexamples 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

- Know that objects have properties and patterns.
- Know that force, motion, and energy are related and part of everyday life.
- Know that the natural world includes rocks, soil, and water that can be observed in cycles, patterns, and systems.
- Know that the living environment is composed of relationships between organisms and life cycles that occur.

Social Studies

- Understand the origin of customs, holidays, and celebrations.
- Understand how historical figures helped shape the state and nation.
- Understand the relative location of places.
- Understand physical and human characteristics of a place to better understand their community and the world around them.
- Understand how families meet basic human needs.
- Understand the concept of goods and services.
- Understand the purpose of rules and laws.
- Understand the role of authority figures and public officials.
- Understand characteristics of good citizenship as exemplified by historical figures and other individuals.
- Understand important symbols, customs, and celebrations that represent American beliefs and principles that contribute to our national identity.
- Understand the importance of family and community beliefs, language, and traditions.

Technology

- Use creative thinking to develop digital products.
- Collaborate and communicate locally and globally using digital tools and resources.
- Develop skills to research topics using digital resources.
- Use word processors, graphic organizers, charts, and multimedia applications.
- Practice safe and responsible behavior online.
- Practice opening and saving files, printing, and basic keyboard skills.

Second Grade

Second grade students will:

Language Arts

- Use comprehension skills to listen attentively to others in formal and informal settings.
- Students speak clearly and to the point, using conventions of language.
- Use a range of reading skills with greater complexity in independent reading to understand the author's message. These skills will include establishing purpose, asking literal questions, monitoring comprehension, making inferences, retelling, and making connections.
- Understand, make inferences, and draw conclusions about varied genres including poetry, fiction, expository, and procedural texts.
- Use graphophonic knowledge to recognize common spelling patterns and spell words with common patterns and rules.
- Read 300 high frequency words with accuracy and fluency.
- 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 an understanding of the base-10 place value system.
- Make comparisons with the place value system up to 1,200.
- Recognize and represent fractional units and communicate how they are used to name parts of a whole identifying examples and nonexamples of halves, fourths, and eighths.
- Recall basic facts to add and subtract within 20 with automaticity.
- Solve 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.
- Build 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

- Identify and demonstrate safe practices.
- Identify and demonstrate how to use, conserve, and dispose of natural resources and materials.
- Plan and conduct descriptive investigations.
- Collect data from observations using science equipment.
- Compare results of investigations with what students and scientists know about the world.
- Classify matter by physical properties and 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 such as building a tower or a bridge.
- Investigate the effects on an object by increasing or decreasing amounts of light, heat, and sound energy.
- Observe and identify how magnets are used in everyday life.
- Trace the changes in the position of an object over time.
- Compare patterns of movement of objects such as sliding, rolling, and spinning.
- Observe and describe rocks by size, texture, and color.

- Identify and compare the properties of natural sources of freshwater and saltwater.
- Distinguish between natural and manmade resources.
- Measure, record, and graph weather information in order to identify patterns in the data.
- Identify the importance of weather and seasonal information to make choices in clothing, activities, and transportation.
- Explore the processes in the water cycle as connected to weather conditions.
- Observe, describe, and record patterns of objects in the sky.
- Identify the basic needs of plants and animals.
- Identify factors in the environment that affect growth and behavior.
- Compare and give examples of the ways living organisms depend on each other and on their environments.
- Observe, record, and compare how the physical characteristics of animals and plants help them meet their basic needs.
- **Social Studies**
- Study their local community by examining the impact of significant individuals and events on the history of the community as well as on the state and nation.
- Study functions of government as well as services provided by local government.
- Acquire knowledge of important customs, symbols, and celebrations that represent American beliefs and principles.
- Understand citizenship; time and chronology; location; significant individuals and events.
- Identify and explain the importance of work; the concept of producers and consumers.
- Identify and explain how technological innovations have changed transportation and communication.

Technology

- Use creative thinking to develop digital products.
- Collaborate and communicate locally and globally using digital tools and resources.
- Develop skills to research topics using digital resources.
- Use word processors, graphic organizers, charts, and multimedia applications.
- Practice safe and responsible behavior online.
- Practice opening and saving files, printing, and basic keyboard skills.

Third Grade

Third grade students will:

Language Arts

- Use comprehension skills to listen attentively to others in formal and informal settings.
- Speak clearly and to the point, using conventions of language.
- Use a range of reading skills with greater complexity in independent reading to understand the author's message. These skills will include establishing purpose; asking literal, interpretive, and evaluative questions; monitoring comprehension; making inferences; summarizing; and making connections between literacy and informational texts.
- Understand, make inferences, and draw conclusions about varied genres including poetry, fiction, expository, and procedural texts.
- Use knowledge of letter sounds, word parts, word segmentation, and syllabication to spell words with more advanced patterns and rules.
- 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 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.
- Learn how to use and conserve resources and dispose of materials.
- Plan and conduct simple descriptive investigations.
- Manipulate, predict, and identify parts that, when separated from the whole, may result in the part or the whole not working; identify parts that, when put together, can do things they cannot do by themselves.
- Observe and record the functions of animal and plant parts.
- Observe, measure, record, analyze, predict, and illustrate changes in size, mass, temperature, color, position, quantity, sound, movement, and state.
- Demonstrate a change in the motion of an object by giving the object a push or a pull.
- Observe, measure, and record changes in weather, the night sky, and seasons.

- Identify characteristics of living and nonliving things.
- Compare and give examples of the ways living organisms depend on each other and on their environments.
- Describe and illustrate the water cycle.
- Identify uses of natural resources.

Social Studies

- Study how individuals have changed their communities and the world.
- Expand their knowledge through the identification of people who made a difference, influenced public policy and decision-making, and participated in resolving important issues.
- Identify reasons people have formed communities, including the need for security and laws, religious freedom, and material well-being.
- Understand how the relationships between individuals have changed or adapted to their environment.
- Identify location, distance, and direction on maps and globes.
- Describe cultural and scientific contributions of individuals who have shaped communities.
- Understand the concept of earning, spending, saving, and donating money.
- Create a simple budget that allocates money for spending and saving.
- Understand supply, demand, price for goods and services, and examples of scarcity.
- Understand the functions of local government and citizenship.
- Identify the purposes of the Declaration of Independence and the U.S. Constitution, including the Bill of Rights.
- Describe the concept of “consent of the governed.”
- Identify characteristics of good citizenship, including truthfulness, justice, equality, respect for oneself and others, responsibility in daily life, and participation in government by educating oneself about the issues, respectfully holding public officials to their word, and voting.
- Identify examples of nonprofit and/or civic organizations such as the Red Cross and explain how they serve the common good.
- Understand ethnic and/or cultural celebrations in the local community and other communities.
- Understand the role of heroes in shaping the culture of communities, the state, and the nation.
- Understand the importance of writers and artists to the cultural heritage of communities.
- Understand technology as it affects life in communities.

Technology

- Use creative thinking to develop digital products and explore virtual environments.
- Collaborate and communicate locally and globally by selecting appropriate digital tools and resources.
- Validate and evaluate the relevance and appropriateness of information online to conduct research.
- Evaluate technology tools appropriate for solving problems.
- Use and understand fair use guidelines and digital safety rules.
- Demonstrate knowledge of technology systems and vocabulary, keyboarding, and basic troubleshooting.

Fourth Grade

Fourth grade students will:

Language Arts

- Use comprehension skills to listen attentively to others in formal and informal settings.
- 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, and evaluative questions; monitoring comprehension; making inferences; summarizing; and making connections between literary and informational texts.
- Understand, make inferences, and draw conclusions about varied genres including poetry, fiction, expository, and procedural texts.
- Spell words with more advanced patterns and rules.
- Write legibly by selecting cursive script or manuscript printing as appropriate.
- 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; 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 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.
- Make informed choices in the use and conservation of natural resources and reusing and recycling of materials.
- Plan and implement descriptive investigations.
- Represent the natural world using models and identify their limitations.
- Measure, compare, and contrast physical properties of matter.
- Predict the changes caused by heating and cooling.
- Compare and contrast a variety of mixtures and solutions.
- Differentiate among forms of energy.
- Differentiate between conductors and insulators.

- Demonstrate that electricity travels in a closed path and explore an electromagnetic field.
- Design an experiment to test the effect of force on an object.
- Examine properties of soils.
- Observe and identify slow changes to Earth's surface.
- Identify and classify Earth's resources.
- Measure, record, and predict changes to weather.
- Describe and illustrate the water cycle.
- Investigate and describe the needs of producers and consumers.
- Describe the flow of energy through food webs.
- Explore how adaptations enable organisms to survive in their environment.
- Demonstrate that some likenesses between parents and offspring are inherited and other likenesses are learned.
- Explore, illustrate, and compare life cycles in living organisms.

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 19th and 20th 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.
- Describe the development of the free enterprise system in Texas such as the growth of cash crops by early colonists and the railroad boom.
- Identify the purposes and explain the importance of the Texas Declaration of Independence and the Texas Constitution.
- Explain the basic functions of the three branches of government according to the Texas Constitution.
- Understand early settlement in Texas and how people organized governments in different ways during the early development of Texas.
- Identify the intent, meaning, and importance of the Declaration of Independence, the U.S. Constitution, and the Bill of Rights.
- Understand the important customs, symbols, and celebrations of Texas including the Pledge to the Texas Flag, Texas Independence Day, Juneteenth, The San Jacinto Monument, and the Alamo.
- Explain the importance of active individual participation in the democratic process including volunteering, voting, and how to contact elected leaders.
- Identify leaders in state, local, and national governments, including the governor, local members of the Texas Legislature, the local mayor, U.S. senators, local U.S. representatives, and Texans who have been president of the United States.
- Understand the contribution of people of various racial, ethnic, and religious groups to Texas culture.
- Describe how scientific discoveries and innovation such as in aerospace, agriculture, energy, and technology have benefited individuals, businesses, and society in Texas.

Technology

- Use creative thinking to develop digital products and explore virtual environments.
- Collaborate and communicate locally and globally by selecting appropriate digital tools and resources.
- Validate and evaluate the relevance and appropriateness of information online to conduct research.
- Evaluate technology tools appropriate for solving problems.
- Use and understand fair use guidelines and digital safety rules.
- Demonstrate knowledge of technology systems and vocabulary, keyboarding, and basic troubleshooting.

Fifth grade

Fifth grade students will:

Language Arts

- Use comprehension skills to listen attentively to others in formal and informal settings.
- 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, and evaluative questions; monitoring comprehension; making inferences; summarizing; and making connections between literary and informational texts .
- Understand, make inferences, and draw conclusions about varied genres including poetry, fiction, expository, and procedural texts.
- Spell words with more advanced patterns and rules.
- Spell words with Greek roots and suffixes as well as Latin roots and derived suffixes.
- 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

- 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.
- Make informed choices in the conservation, disposal, and recycling of materials.
- Describe, plan, and implement single experimental investigations. Analyze, interpret and report the results.
- Draw or develop a model that represents how something works or looks that cannot be seen such as how a soda dispensing machine works.

- Classify matter based on physical properties.
- Identify the boiling and freezing/melting points of water on the Celsius scale.
- Demonstrate that mixtures maintain physical properties.
- Explore the uses of energy.
- Demonstrate an electric circuit.
- Demonstrate that light can be reflected and/or refracted.
- Design an experiment that tests the effect of force on an object.
- Explore the processes that led to the formation of sedimentary rocks and fossil fuels.
- Recognize how landforms are the results of changes to Earth's surface.
- Identify alternative energy resources.
- Identify fossils as evidence of past living organisms.
- Differentiate between weather and climate.
- Explain how the Sun and the ocean interact in the water cycle.
- 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.
- Identify and compare the physical characteristics of the Sun, Earth, and Moon.
- Observe the way organisms live and survive in their ecosystem.
- Describe how the flow of energy from the Sun is transferred through a food chain and food web.
- Predict the effects of changes in ecosystems caused by living organisms.
- Identify the significance of the carbon dioxide-oxygen cycle.
- Compare the structures and functions of different species that help them live and survive.
- Differentiate between inherited traits of plants and animals and learned behaviors.
- Describe the differences between complete and incomplete metamorphosis of insects.

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 20th century.
- Explain when, where, and why groups of people explored, colonized, and settled in the United States, including the search for religious freedom and economic gain.
- Understand the significant individuals who contributed to the creation of the U.S. Constitution and the government it established; and identify the contributions of Founding Fathers James Madison and George Mason who helped create the U.S. Constitution.
- Understand the location and geographical characteristics of regions and patterns of settlement.
- Locate on a map important political features such as the five largest cities and the 50 states.
- Create a map of important physical features such as the Appalachian Mountains, Great Lakes, Mississippi River, Great Plains, and Rocky Mountains.
- Analyze the positive and negative consequences of human modification of the environment in the United States.
- Understand the benefits of the free enterprise system and patterns of work and the impact of supply and demand.
- Describe the impact of mass production, specialization, and division of labor on the economic growth of the United States.
- 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, to include the Mayflower Compact and the Virginia House of Burgesses.
- 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.
- Recite and explain the meaning of the Pledge of Allegiance to the United States Flag.
- Understand the fundamental rights of American citizens guaranteed in the Bill of Rights. The student is expected to describe the fundamental rights guaranteed in the Bill of Rights, including freedom of religion, speech, and press; the right to assemble and petition the government; the right to keep and bear arms; the right to trial by jury; and the right to an attorney.
- Explain how examples of art, music, and literature reflect the time during which they were created.
- Explain how scientific discoveries and technological innovations in the fields of medicine, communication, and transportation have benefited individuals and society in the United States.

Technology

- Use creative thinking to develop digital products and explore virtual environments.
- Collaborate and communicate locally and globally by selecting appropriate digital tools and resources.
- Validate and evaluate the relevance and appropriateness of information online to conduct research.
- Evaluate technology tools appropriate for solving problems.
- Use and understand fair use guidelines and digital safety rules.
- Demonstrate knowledge of technology systems and vocabulary, keyboarding, and basic troubleshooting.

Sixth Grade

Sixth grade students will:

Language Arts

- Use comprehension skills to listen attentively to others in formal and informal settings.
- 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 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 percents with concrete models, fractions, and decimals.
- Generate equivalent forms of fractions, decimals, and percents 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, 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 credit 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.
- Practice appropriate use and conservation of resources.
- Plan and implement comparative and descriptive investigations by making observations.
- Use models to represent aspects of the natural world.
- Know that an element is a pure substance represented by chemical symbols.
- Differentiate between elements and compounds on the most basic level.
- Identify the formation of a new substance by using the evidence of a possible chemical change.
- Compare metals, nonmetals, and metalloids.
- Calculate density to identify an unknown substance.
- Test the physical properties of minerals.
- Research and debate the advantages and disadvantages of using different natural resources.
- Compare and contrast potential and kinetic energy.
- Identify and 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 and pulleys can be used to change the amount of force to move an object.
- Investigate methods of thermal energy transfer.
- Demonstrate energy transformations.
- Build a model to illustrate the structural layers of Earth.
- Classify rocks as metamorphic, igneous, or sedimentary by the process of their formation.
- Identify the major tectonic plates and describe how plate tectonics causes major geological events.
- Describe the physical properties, locations, and movement of the Sun, planets, Galilean moons, meteors, asteroids, and comets.
- Understand that gravity is the force that governs the motion of our solar system.
- Describe the history and future of space exploration.
- Understand that all organisms are composed of one or more cells.
- Recognize that the broadest taxonomic classification of living organisms is divided into Domains.
- Identify the basic characteristics of organisms that classify them in the Kingdoms.
- Describe biotic and abiotic parts of an ecosystem.
- Diagram the levels of organization within an ecosystem.

Social Studies

- Study people and places of the contemporary world including location and geographical characteristics.
- Identify and explain the geographic factors responsible for patterns of population in places and regions.
- Explain ways in which human migration influences the character of places and regions.
- Identify and locate major physical and human geographic features such as landforms, water bodies, and urban centers of various places and regions.
- Understand how geographic factors influence the economic development and political relationships of societies.
- Understand the impact of interactions between people and the physical environment on the development and conditions of places and regions.
- Understand the relationships among cultures.
- Compare and contrast free enterprise, socialist, and communist economies in various contemporary societies, including the benefits of the U.S. free enterprise system.
- Define and give examples of agricultural, retail, manufacturing (goods), and service industries.
- Describe levels of economic development of various societies using indicators such as life expectancy, gross domestic product (GDP), GDP per capita, and literacy.
- Understand economic and governmental systems including limited and unlimited governments and citizenship.
- Identify historical origins of democratic forms of government such as Ancient Greece.
- Compare ways in which various societies such as China, Germany, India, and Russia organize government and how they function.
- Describe and compare roles and responsibilities of citizens in various contemporary societies, including the United States.
- Identify and describe means of cultural diffusion such as trade, travel, and war.
- Identify and explain examples of conflict and cooperation between and among cultures.
- Understand relationships that exist among world cultures, the relationship that exists between the arts and the societies in which they are produced, and the relationship among religion, philosophy, and culture.
- 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.

Technology

- Use creative thinking to develop digital products and explore virtual environments using a variety of file formats.
- Collaborate and communicate locally and globally by selecting appropriate digital tools and resources using a variety of media and formats.
- Validate and evaluate the relevance and appropriateness of information online to conduct research and communicate results.
- Evaluate and use technology tools to make decisions and solve problems.
- Understand the negative impact of online bullying and harassment, hacking, viruses, invasion of privacy, and the importance of copyright law.
- Demonstrate a thorough understanding of technology concepts, systems, and operations.

Seventh Grade

Seventh grade students will:

Language Arts

- Engage in academic discussions, write, read, and be read to on a daily basis.
- Become self-directed, critical learners who work collaboratively.
- Use metacognitive skills to deepen comprehension of texts.
- Monitor comprehension and make adjustments using background knowledge, questions, and annotations.
- Make inferences and use evidence to support understanding of written texts across a variety of genres.
- Make connections between and across texts including other media and provide textual evidence to support understanding.
- Use the writing process to compose multiple texts that are organized, reflect depth of thought, and include accurate conventions.
- Compose a variety of texts such as personal narratives, fiction, informational, and argumentative essays.
- Research and utilize the inquiry process to develop a plan, identify relevant sources, differentiate between paraphrasing and plagiarizing, and present information in writing, orally, or in a multimodal presentation.

Math

- Use addition, subtraction, multiplication, and division to solve problems involving whole numbers, integers, and rational numbers.
- Convert between fractions, decimals, whole numbers, and percents.
- Use division to find unit rates and ratios in proportional relationships.
- Simplify numerical expressions involving order of operations.
- Determine the reasonableness of a solution to a problem given a two-step equation or inequality with one variable.
- Find solutions to application problems involving proportional relationships (i.e., scale drawings and maps).
- Generate and apply formulas, and graph data to demonstrate relationships in familiar concepts such as conversions, perimeter, area, circumference, composite area, volume, and scaling to solve problems.
- Use concrete models to solve equations and use symbols to record the actions and formulate a possible situation when given a simple problem.
- Compare and classify two and three dimensional figures using geometric vocabulary, and properties; including complementary and supplementary angles; and use critical attributes to define similarity.
- Find lateral and surface area of rectangular prisms and pyramids using the shape's net.
- Solve application problems involving estimation and measurement; and connect models for volume.
- Construct sample spaces for compound events; find the approximate probability of a compound event through experimentation; and find probability of independent events.
- Understand that the way a set of data is displayed influences its interpretation.
- Analyze and make inferences from data.
- Select and use an appropriate representation for presenting collected data and justify the selection.
- Use measures of central tendency and range to describe a set of data.
- Apply math to solve problems connected to everyday experiences such as sales tax, income tax, simple interest, and compound interest.
- Communicate about math using informal language like monetary incentives, rebates, or coupons.
- Use logical reasoning to make conjectures and verify conclusions.
- Represent a linear relation in the form of $y = mx + b$ for a table of values, graphical model, or verbal description.

Science

- Demonstrate safe practices during investigations.
- Practice appropriate use and conservation of resources.
- Plan and implement comparative and descriptive investigations.
- Recognize that radiant energy from the Sun is transformed into chemical energy through the process of photosynthesis.
- Demonstrate and explain the cycling of matter and energy within living systems.
- Identify that organic compounds contain carbon and other elements.
- Distinguish between physical and chemical changes in matter in the digestive system.
- Contrast situations where work is done with different amounts of force to situations where no work is done such as moving a box with a ramp and without a ramp, or standing still.
- Illustrate the transformation of energy within an organism.
- Demonstrate and illustrate forces that affect motion in everyday life.
- Predict and describe how different types of catastrophic events impact ecosystems.
- Analyze the effects of weathering, erosion, and deposition on the environment.
- Model the effects of human activity on groundwater and surface water in a watershed.

- Analyze the characteristics of objects in our solar system that allow life to exist.
- Observe and describe how different environments support different varieties of organisms.
- Describe how biodiversity contributes to the sustainability of an ecosystem.
- Observe, record, and describe the role of ecological succession.
- Examine organisms or their structures and use dichotomous keys for identification.
- Explain variation within a population or species that enhance their survival.
- Identify some changes in genetic traits that have occurred over several generations through natural selection and selective breeding.
- Investigate and explain how internal structures of organisms have adaptations that allow specific functions.
- Identify the main functions of the systems of the human organism.
- Recognize levels of organization in plants and animals.
- Differentiate between structure and function in plant and animal cell organelles.
- Recognize all organisms are composed of cells and cells carry on similar functions.
- Investigate how organisms respond to external and internal stimuli.
- Define heredity.
- Recognize that inherited traits of individuals are governed in the genetic material found in the genes.

Social Studies – Texas History

- Understand traditional historical points of reference in Texas history from exploration to present.
- Understand how individuals, events, and issues through the Mexican National Era shaped the history of Texas.
- Compare the cultures of American Indians in Texas prior to European colonization such as Gulf, Plains, Puebloan, and Southeastern.
- Contrast Spanish, Mexican, and Anglo purposes for and methods of settlement in Texas.
- Understand how individuals, events, and issues related to the Texas Revolution shaped the history of Texas.
- Understand geographic influence on Texas history and can locate and compare the Mountains and Basins, Great Plains, North Central Plains, and Coastal Plains regions.
- Understands the characteristics, distribution, and migration of population in Texas in the 19th, 20th, and 21st centuries.
- Explain economic factors and the development of major industries that led to the urbanization of Texas such as transportation, oil and gas, and manufacturing.
- Explain the changes in the types of jobs and occupations that have resulted from the urbanization of Texas.
- Understand the basic principles reflected in the Texas Constitution and compare the Texas Constitution to the U.S. Constitution.
- Identify different points of view of political parties and interest groups on important Texas issues, past and present.
- Describe the structure and functions of government at municipal, county, and state levels.
- Understand the importance of the expression of different points of view in a democratic society.
- Understand the concept of diversity within unity in Texas.
- Understand the impact of scientific discoveries and technological innovations on the political, economic, and social development of Texas.
- Use critical thinking to analyze social studies information.

Technology

- Use creative thinking to develop digital products and explore virtual environments using a variety of file formats.
- Collaborate and communicate locally and globally by selecting appropriate digital tools and resources using a variety of media and formats.
- Validate and evaluate the relevance and appropriateness of information online to conduct research and communicate results.
- Evaluate and use technology tools to make decisions and solve problems
- Understand the negative impact of online bullying and harassment, hacking, viruses, invasion of privacy, and the importance of copyright law.
- Demonstrate a thorough understanding of technology concepts, systems, and operations.

Eighth Grade

Eighth grade students will:

Language Arts

- Participate in academic discussions, write, read, and be read to on a daily basis.
- Become self-directed, critical learners who work collaboratively.
- Use metacognitive skills and generate questions to deepen understanding of increasingly complex texts.
- Monitor comprehension and make adjustments using background knowledge, questions, annotations and when new evidence is presented.
- Make inferences and use evidence to support understanding of written texts across a variety of genres.
- Make connections between and across texts including other media and provide textual evidence.
- Use critical inquiry to analyze the author's purpose and choices and how they influence and communicate meaning.
- Use the writing process to compose multiple texts that are organized and reflect genre characteristics, reflect depth of thought, and include accurate conventions.
- Compose a variety of texts such as personal narratives, fiction, informational, argumentative essays, and correspondence.
- Research and utilize the inquiry process to develop a plan, identify relevant sources, differentiate between paraphrasing and plagiarizing, and present information in writing, orally, or in a multimodal presentation.

Math

- Approximate the value of irrational numbers as they arise from problem situations and express numbers in order from a real-world or mathematical context.
- Add, subtract, multiply, and divide rational numbers in problem situations fluently with and without technology.
- Solve one variable equations with variables on both sides of the equal sign containing rational numbers as constants or coefficients.
- Write an inequality for a problem situation with variables on both sides of the symbol.
- Evaluate a solution for reasonableness.
- Compare and contrast proportional and nonproportional relationships and estimate and find solutions to application problems involving percents and proportional relationships such as similarity, rate, and slope.
- Represent proportional ($y = kx$) and non-proportional ($y = mx + b$) relationships from a table of values, graph, or verbal situation.
- Generate a different representation given one representation of data.
- Use graphs, tables, and algebraic representations to make predictions and solve problems.
- Use an algebraic expression to find any term in a sequence.
- Generate similar shapes, congruent shapes, or an algebraic representation for dilations, reflections and translations on a coordinate plane.
- Generate an algebraic expression or draw a figure that is rotated 90° , 180° , 270° , or 360° about a fixed point.
- Use pictures and models to demonstrate the Pythagorean Theorem and solve real life problems; and use proportional relationships in shapes to find missing measurements.
- Locate and name points on a coordinate plane using ordered pairs on rational numbers.
- Use procedures to determine measures of solids, including surface area of prisms and cylinders, connecting models to formulas for volume of prisms, cylinders, pyramids, cones, and spheres.
- Describe how changes in dimension affect linear, area, and volume measures.
- Apply concepts of theoretical and experimental probability to make predictions.
- Use statistical procedures to describe data, including the appropriate measure of central tendency.
- Draw conclusions and make predictions by analyzing trends in scatterplots; and construct circle graphs, bar graphs, and histograms.
- Evaluate predictions and conclusions based on statistical data.
- Apply math to solve problems connected to everyday experiences such as compound interest.
- Communicate about math using informal language about credit cards, savings for college, retirement, and financial irresponsibility.
- Use logical reasoning to make conjectures and verify conclusions.

Science

- Demonstrate safe practices during investigations.
- Practice appropriate use and conservation of resources.
- Plan and implement comparative and descriptive investigations.
- Describe the structure of atoms.
- Identify that protons determine an element's identity and valence electrons determine its chemical properties.
- 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 chemical reactions indicate new substances are formed.
- Recognize a balanced chemical equation that relates to the law of conservation of mass.
- Demonstrate and calculate how unbalanced forms change the speed or direction of an object's motion.
- Differentiate between speed, velocity, and acceleration.
- Investigate and describe applications of Newton's laws.
- Model and illustrate how the tilted Earth rotates on its axis and revolves around the Sun.
- Demonstrate and predict the sequence of events in the lunar cycle.
- Relate the position of the Moon and Sun to their effect on ocean tides.
- Describe components of the universe.
- Explore how different wavelengths of the electromagnetic spectrum are used to gain information about distances and properties of components in the universe.
- Model and describe how light years are used to measure distances and sizes in the universe.
- Describe the historical development of evidence that supports plate tectonic theory.
- Relate plate tectonics to the formation of crustal features.
- Interpret topographic maps and satellite views to identify land and erosional features and predict how these features may be reshaped by weathering.
- Recognize the role of the Sun in the Universe.
- Identify influences on the weather.
- Describe relationships as they occur in food webs.
- Recognize human dependence on ocean systems and explain how human activities have modified these systems.

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 how religion and virtue contributed to the growth of representative government in the American colonies.
- Understand significant political and economic issues of the revolutionary and Constitutional eras.
- Understand the challenges confronted by the government and its leaders in the early years of the republic and the Age of Jackson.
- Understand westward expansion and its effects on the political, economic, and social development of the nation.
- Explain the central role of the expansion of slavery in causing sectionalism, disagreement over states' rights, and the Civil War.
- Understand how political, economic, and social factors led to the growth of sectionalism and the Civil War.
- Explain the effects of Reconstruction on the political, economic, and social life of the nation.
- Analyze the effects of physical and human geographic factors such as weather, landforms, waterways, transportation, and communication on major historical events in the United States.
- 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.
- Explain federalism between state and federal governments and identify the origin of judicial review.
- Examine the rights and responsibilities of citizens of the United States.
- Understand the importance of the expression of different points of view in a constitutional republic.
- Describe the importance of free speech and press in a constitutional republic.
- Identify and analyze relationships between and among people from various groups, including racial, ethnic, and religious groups prior to the Civil War.
- Understand the impact of religion on the American way of life.
- Understand the relationship between the arts and the time during which they were created.
- 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.

Technology

- Use creative thinking to develop digital products and explore virtual environments using a variety of file formats.
- Collaborate and communicate locally and globally by selecting appropriate digital tools and resources using a variety of media and formats.
- Validate and evaluate the relevance and appropriateness of information online to conduct research and communicate results.
- Evaluate and use technology tools to make decisions and solve problems.
- Understand the negative impact of online bullying and harassment, hacking, viruses, invasion of privacy, and the importance of copyright law.
- Demonstrate a thorough understanding of technology concepts, systems, and operations.