What your child will learn in Grade 4
### Grade 4 Mathematics

#### What your child will learn
- Generate equivalent fractions
- Compare and order fractions
- Apply rounding to estimate
- Select and use diagrams and number sentences
- Draw, identify, and classify two- and three-dimensional shapes and their characteristics
- Graph whole number coordinates
- Apply measurement concepts
- Investigate probability through experimentation
- Investigate statistics through graphing
- Read and comprehend mathematical vocabulary in isolation and in context
- Use formal and informal language to describe and discuss mathematical concepts and skills
- Relate informal language to mathematical language and symbols
- Develop mental math strategies to add, subtract, multiply and divide
- Mentally round and estimate
- Add and subtract whole numbers and decimals
- Multiply and divide whole numbers
- Use different procedures to solve computation problems
- Model adding/subtracting of fractions with like denominators
- Investigate and solve real-world problems
- Formulate a plan to solve given problems
- Apply basic problem-solving strategies that can be applied in various contexts
- Use logical reasoning

#### What your child will do
- Use manipulatives to explore concepts and develop in-depth understanding
- Draw pictures to illustrate concepts
- Utilize measurement tools such as rulers, scales, weights, etc.
- Conduct probability experiments
- Construct graphs to organize data
- Draw and construct two- and three-dimensional shapes
- Apply concepts in mathematical situations
- Complete graphic organizers that illustrate mathematical terms
- Engage in discussions that explore concepts with a partner, in small groups, and within the class
- Maintain a journal of personal reflections
- Translate mathematical symbols into mathematical language
- Play games that require instant recall of basic facts
- Engage in mental math activities
- Practice computation in different contexts
- Choose mathematical procedures (algorithms) that are more efficient
- Apply basic facts within the context of a story problem
- Apply reading comprehension strategies to word problems
- Apply problem-solving strategies
- Solve problems using the Dallas Problem-Solving Model (See, Plan, Do, Reflect) individually, in pairs, and/or in groups to solve problems
- Distinguish between one-step and multiple-step problems
- Explain and justify the thinking process used to solve problems orally and in written form
- Write original story problems

#### What you’ll see (products)
- An increased enthusiasm for mathematics
- Concept maps that show the relationships between and among concepts
- Projects that require the application of concepts
- Study Links (homework)
- Complete graphic organizers that explain mathematical terms
- Journal entries that require the student to use mathematical vocabulary in a variety of contexts
- Projects that include computation
- Problems solved using various procedures (algorithms)
- Improvement in basic fact recall
- Examples of the Dallas Problem-Solving Model (See, Plan, Do, Reflect)
- Self-generated story problems
- Written explanations and justifications of solutions to problems
- Application of problem-solving strategies outside the classroom

#### How you can help
- Have your child search for math in the newspaper and explain how it is used
- Help your child discover mathematical concepts around the house
- Read literature that relates to mathematics
- Acquaint your child with math in sports, cooking, music, shopping, transportation, etc.
- Set aside a time for daily homework discussion
- Assist your child in finding Web sites on the Internet where they can practice addition, subtraction, multiplication, and division through games
- Use playing cards or make flash cards to practice addition, subtraction, multiplication, and division
- Have your child look through ads or the newspaper to find the best price to purchase an item they desire
- Have your child estimate the amount of food needed to prepare a meal
- Have your child plan a birthday party for 10 people
- Provide reading experiences and have the child explain the content
<table>
<thead>
<tr>
<th>What your child will learn</th>
<th>Reading Comprehension</th>
<th>Reading Fluency</th>
<th>Vocabulary</th>
<th>Writing</th>
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</thead>
<tbody>
<tr>
<td>• Put the important events of a story or book in order</td>
<td>• Figure out unknown words</td>
<td>• Learn new words and their meanings while reading</td>
<td>• Write a friendly letter</td>
<td></td>
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<tr>
<td>• Find important details in a story and tell what the story is mostly about</td>
<td>• Choose books he/she can read without help</td>
<td>• Learn word parts (such as mis-, -sion, -s) that help the reader figure out word meanings</td>
<td>• Use a web and flow chart to plan and write a story about a personal experience</td>
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<tr>
<td>• Find the main character’s goal or problem in a story</td>
<td>• Read high frequency words (such as through, around, enough)</td>
<td>• Read word parts to help figure out word meanings</td>
<td>• Use capital letters and punctuation correctly</td>
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<tr>
<td>• Make predictions and draw conclusions about a story</td>
<td>• Reread familiar stories to build reading fluency</td>
<td>• Choose the correct meaning of a multiple-meaning word using clues and dictionary definitions</td>
<td>• Spell words correctly</td>
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<tr>
<td>• Make predictions and draw conclusions using clues in the story</td>
<td>• Read about 120 words per minute (by end of year)</td>
<td>• Use the clues an author puts in a story (such as definitions or examples) to figure out unknown words</td>
<td>• Use complete sentences</td>
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<tr>
<td>• Read silently in chapter books such as Shiloh or Beezus and Ramona</td>
<td>• Read correctly and with expression</td>
<td>• Use word parts to help figure out word meanings</td>
<td>• Find and correct his/her own mistakes</td>
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<td>• Read aloud to entertain others</td>
<td>• Read selections from stories to reread for practice</td>
<td>• Choose the correct meaning of a multiple-meaning word using clues and dictionary definitions</td>
<td>• Produce a story that is easy for the reader to understand</td>
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<tr>
<td>• Poems to read aloud</td>
<td>• High frequency word lists for practice</td>
<td>• Word maps and drawings that show word meanings</td>
<td>• Stories and letters that are easy for the reader to understand</td>
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<tr>
<td>• Selections from stories to reread for practice</td>
<td>• Charts of words read per minute</td>
<td>• Word lists (such as word parts and their meanings)</td>
<td>• Webs and flow charts used for planning</td>
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<td>• Charts of words read per minute</td>
<td>• Written retellings of stories</td>
<td>• Vocabulary folders or notebooks</td>
<td>• Corrections made by the student on his/her own work</td>
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<td>• Plays based on stories</td>
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<td>• Stories and letters that are easy for the reader to understand</td>
<td>• Have your child write a letter to a family member or friend</td>
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<td>• Projects, timelines, charts, and illustrations that show understanding of the story</td>
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<td>• Webs and flow charts used for planning</td>
<td>• Have your child plan a story using the web and flow chart</td>
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<tr>
<td>• Time your child to see how many words he/she can read in one minute</td>
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<td>• Write the story together</td>
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<td>• Encourage your child to read poems and stories to you</td>
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<td>• Help your child practice spelling words correctly (ask the teacher for a list)</td>
<td>• Take your child to the library to check out books</td>
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<td>• Read aloud to your child</td>
<td>• Read aloud to your child</td>
<td>• Ask your child the meaning of unfamiliar words while you are reading together. Help him/her find clues to the meaning of a word.</td>
<td>• Have your child write a letter to a family member or friend</td>
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<td>• Tape your child while he/she is reading</td>
<td>• Tap your child while he/she is reading</td>
<td>• Ask his/her teacher for word lists to practice at home</td>
<td>• Have your child plan a story using the web and flow chart</td>
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<td>• Help your child collect interesting new words during daily activities</td>
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<td>• Help your child practice spelling words correctly (ask the teacher for a list)</td>
<td>• Have your child plan a story using the web and flow chart</td>
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<td>• Help your child read and follow directions to make a handmade project (such as a bird feeder)</td>
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<td>• Help your child practice spelling words correctly (ask the teacher for a list)</td>
<td>• Have your child plan a story using the web and flow chart</td>
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<tr>
<td>• Have your child retell a favorite TV show or story in order</td>
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<td>• Help your child practice spelling words correctly (ask the teacher for a list)</td>
<td>• Have your child plan a story using the web and flow chart</td>
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<td>• Take your child to the library to check out books</td>
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<td>• Help your child practice spelling words correctly (ask the teacher for a list)</td>
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<td>What your child will learn</td>
<td>What your child will do</td>
<td>What you’ll see (products)</td>
<td>How you can help</td>
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</tbody>
</table>
| • Field and laboratory investigations  
• Scientific inquiry  
• Critical thinking, problem solving, and decision making  
• Appropriate use of tools and equipment | • Implement investigative procedures  
• Demonstrate safe practices  
• Collect data  
• Organize, examine, and evaluate data  
• Select science equipment and technology  
• Make decisions  
• Communicate valid conclusions | • Safety rules and symbols  
• Student safety contract  
• Science equipment  
• Graphic organizers  
• Lab reports  
• Graphs, tables, charts  
• Science folder/journal  
• Science Fair project | • Provide a place to study  
• Use technology  
• Ask questions  
• Help students to organize information  
• Complete Science Fair project |
| • Systems in everyday life  
• Energy interactions in everyday life  
• Living and nonliving systems | • Identify and describe the roles of some organisms in living systems such as plants in a schoolyard  
• Examine parts in nonliving systems such as a light bulb in a circuit  
• Draw conclusions about what happens when part of a system is removed | • Written observations about plant parts  
• Drawings of seeds  
• Groupings of component parts of different systems  
• Models of systems taken apart/put back together | • Sort objects around the home into different categories  
• Plant seeds and flowers  
• Go on nature walks |
| • Matter exits in everyday life  
• Physical properties of substances  
• Components of the natural world | • Classify matter—physical state, magnetic, conductors, insulators  
• Demonstrate mixtures that maintain physical properties of ingredients  
• Recognize that changes may occur in physical properties of ingredients  
• Observe properties of substances that remain constant  
• Test properties of soils | • List of properties of mixtures  
• Lab tests of density and buoyancy  
• Journal work  
• Charts/graphs of lab work  
• Pictures of various mixtures | • Discuss the components of certain foods  
• Classify foods as a mixture or solution  
• Determine materials that float or sink in water |
| • Changes occur in everyday life  
• Force and motion  
• Patterns and change  
• Past events affect present and future events | | • Lab activities using charts and graphs  
• Journal entries  
• Drawings and diagrams of change in motion of objects  
• Models | • List symmetrical objects in a room  
• List forces that cause change in movement |

**Scientific Process Skills**

- Field and laboratory investigations
- Scientific inquiry
- Critical thinking, problem solving, and decision making
- Appropriate use of tools and equipment

**Systems**

- Systems in everyday life
- Energy interactions in everyday life
- Living and nonliving systems

**Properties, Patterns and Models**

- Matter exits in everyday life
- Physical properties of substances
- Components of the natural world

**Constancy and Change**

- Changes occur in everyday life
- Force and motion
- Patterns and change
- Past events affect present and future events
## Grade 4 Social Studies

<table>
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<tr>
<th></th>
<th>The History of The Lone Star State</th>
<th>Writing and Illustrating Using Texas Historical Content</th>
<th>Oral Communication Using Texas Historical Content</th>
<th>Social Studies Skills</th>
</tr>
</thead>
</table>
| **What your child will learn** | • Where and why people settled in Texas  
  • How democracy developed in Texas  
  • How free enterprise developed in Texas  
  • How technology and conflicts changed Texas  
  • How political, economic, and social changes continue to change and benefit Texas | • Specific grade level vocabulary words and concepts  
  • Use specialized grade-level vocabulary in writing  
  • Use graphic organizers (diagrams) to organize ideas and information before prewriting | • Develop social skills to get along with others  
  • Communicate ideas and information in an organized format for a group or class  
  • Listen to different points of view about an issue or topic | • Sequence significant historical dates, people and events in chronological order  
  • Collect, analyze and interpret data  
  • Recognize the importance of patriotic Texas symbols and landmarks  
  • Interpret and analyze historical documents |
| **What your child will do** | • Use context clues to determine meaning of new vocabulary words  
  • Demonstrate reading comprehension by recalling facts, main idea, examining cause and effect relationships and making inferences | • Write with purpose paragraphs, summaries, letters, logs, diaries and journal entries  
  • Identify main idea with supporting details  
  • Predict outcomes  
  • Compare and contrast | • Demonstrate characteristics of a good listener and speaker  
  • Use appropriate grade-level vocabulary words  
  • Plan and prepare for oral interviews of people who remember a certain event or time period | • Participate in creative drama and role playing  
  • Participate in sharing and group teamwork  
  • Participate in group decision-making process |
| **What you'll see (products)** | • Readings summarized and restated in their own words  
  • On level reading ability  
  • Reading grade level books | • Analysis of primary and secondary source documents  
  • Student made index cards (manipulatives) to help him/her remember information | • Taped oral interviews  
  • Presentation of ideas or information to group or class  
  • Speaking clearly and with confidence in front of group or class | • Timelines, graphs, charts, tables, illustrations, and maps  
  • Graphic organizers (diagrams) of information and ideas |
| **How you can help** | • Encourage your child to read to a younger child in the home  
  • Let your child read to you  
  • Take your child frequently to the library  
  • Provide quiet time for everyone to read in the home | • Provide a quiet, well-lit study area for your child  
  • Provide your child’s study area with paper, pencils, pens, a dictionary, a thesaurus, or other reference materials | • Listen and engage in conversations with your child on topics that interests them | • Allow them to do simple tasks to gain experience and confidence  
  • Be there to guide and encourage them in their effort to complete a task |
# Grade 4 Enrichment Opportunities

<table>
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<tr>
<th>Physical Education</th>
<th>Music</th>
<th>Art</th>
<th>Talented and Gifted Program</th>
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<tbody>
<tr>
<td><strong>What your child will learn</strong></td>
<td><strong>What your child will do</strong></td>
<td><strong>What you'll see (products)</strong></td>
<td><strong>How you can help</strong></td>
</tr>
<tr>
<td>Identify fundamental movement patterns as well as movement concepts. Acquire knowledge of the benefits of being involved in daily physical activity and factors that affect physical performance. Learn safety practices, self-management skills, and social skills associated with physical activity.</td>
<td>Participate in moderate to vigorous physical activities. Participate in appropriate exercises to develop flexibility. Participate in dynamic game situations.</td>
<td>Demonstrate more mature movement forms as well as manipulative skills (throwing, catching, kicking, and striking). Demonstrate knowledge of rules and strategies involved in sports and games.</td>
<td>Encourage your students to participate and support their involvement in activity-based programs. Contact the physical education instructor at your local campus. Visit your local community centers to become involved in activities.</td>
</tr>
<tr>
<td>Identify principal instruments of the orchestra. Write music notation using the treble clef staff. Use standard music terms to explain music, notation, instruments, voices, and performances.</td>
<td>Sing songs of different cultures and styles. Play classroom instruments. Perform folk dances from different cultures. Listen and identify music from selected historical periods and orchestral forms.</td>
<td>Student performances and presentations. Improved skills of following directions, memorization and teamwork. Written samples of music notation.</td>
<td>Listen to different styles of music. Attend a live music performance. Listen to songs your child has learned. Use of computer software to develop listening skills.</td>
</tr>
<tr>
<td>Communicate ideas about him or herself, family, school, and community through art. Use appropriate vocabulary to express ideas through the elements and principles of art. Use a wider variety of art tools and media. See how different media create different &quot;looks&quot; in art. &quot;Critique&quot; art with a positive attitude, using art vocabulary.</td>
<td>Create original artworks using crayons, markers, paint, paper, clay, and other media. Discuss and recognize the art of more than one culture. Discuss his or her artwork aloud before a group. Continue using art tools correctly to improve manual dexterity.</td>
<td>Two- (flat) and three (formed) dimensional artworks in crayon, paint, paper, clay, photography, etc. Writing samples related to art, art history, and or culture that use art vocabulary.</td>
<td>Display your child's artwork in a prominent place. Ask your child to tell you about his or her art works. Create an art center at home. Visit the children's section at the museum. Discover your child's particular art interests and explore them online or at the public library. Volunteer at school. Attend student art exhibitions.</td>
</tr>
<tr>
<td>Curriculum is based on themes that include core subjects, and, for example, Perspectives and Bridges. Thinking strategies are included. Students engage in research projects.</td>
<td>Engage in creative and challenging lessons, activities, and research that require the use of higher order thinking strategies.</td>
<td>Thinking Activities. Products that represent completed research projects, and extended curriculum lessons and activities (books, reports, presentations, etc.).</td>
<td>Take your child to various events at the library, museums, zoo. Discuss the products and projects that your child brings home. Visit the TAG classroom. Work on questioning skills and logic puzzles with your child.</td>
</tr>
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</table>