

Grade 2

Reading/Language Arts

Prerequisites:

Before entering 2nd grade, students should be able to

- Pay attention and use good manners when responding to directions and questions.
- Use a wide variety of words to describe ideas, feelings, and experiences.
- Read aloud with fluency on first-grade materials.
- Understand and identify main characters, setting, problem, and solution in stories.
- Spell high-frequency words and words with short-vowel patterns.
- Write friendly letters, personal stories, and short stories.
- Write in complete sentences with correct use of beginning capitalization and ending punctuation.

Competencies:

During 2nd grade, students will

- Listen and respond to questions, stories, poems, presentations, and two-step directions.
- Speak clearly when discussing and presenting, using correct grammar and precise word choices.
- Use phonics, word parts, and context clues to read new words with one or more syllables in second-grade material.
- Read silently on the second-grade level for at least 20 minutes daily at a rate of at least 90 words per minute.
- Read second grade high-frequency words easily, and understand the meaning of new words by discussing them and by using resources such as beginning dictionaries.
- Understand second-grade materials by using these strategies: identifying details, finding a stated cause-and-effect, drawing conclusions, making predictions, putting events in order, and looking at cultural factors.
- Use reading strategies such as re-reading, correcting their own mistakes, and pausing often to check for meaning.

- Read stories, poems, fables, and nonfiction, and recognize the features that make these forms different from one another.
- Gather and present information from various sources, such as classroom guests, books, and other media.
- Print letters, using proper size, spacing, and margins.
- Use correct punctuation (commas in a date, between city and state, and after letter parts; apostrophes in contractions).
- Use correct capitalization (days, months, holidays, cities, states, countries, and abbreviations, such as Mr. and Ave.).
- Spell second-grade high-frequency words correctly in all writing.
- Write in complete sentences using correct subject/verb agreement, colorful adjectives, and vivid verbs.
- Write friendly letters, stories, poems, and simple research papers.
- Brainstorm ideas and events to plan for writing; write drafts and revise; edit for capitalization and punctuation; and publish a final copy.
- Use the computer to open, save, and close files during writing.

Outside of School:

As parents, you can provide opportunities for your 2nd grader to

- Read to you and listen to you read daily for at least 15 minutes and then answer your questions and talk about the material.
- Review sight words and spelling words daily.
- Read a variety of materials such as menus, billboards, cereal boxes, grocery items, and children's magazines.
- See that you enjoy reading.
- Go to the public library regularly.
- Write thank-you notes, letters to relatives, captions for a photo album, lists, diary entries, and travel logs.
- Read a variety of books and listen to tapes.
- Play thinking games with you, such as I Spy, ABC games, rhyming games, or 20 Questions.

Mathematics

Prerequisites:
Before entering 2nd grade, students should be able to

- Understand and use first-grade mathematics vocabulary.
- Follow a 4-step problem-solving plan (such as Big Q, window pane, or list) that uses multiple strategies to solve application-level word problems and requires students to justify their thinking.

Number and Operations

- Read, write (using correction formation), compare, and order number and number words to 99.
- Use fractions to represent parts of a whole and parts of a set ($\frac{1}{2}$, $\frac{1}{3}$, and $\frac{1}{4}$).
- Know basic addition facts with sums to 18.
- Solve addition problems with three addends and two-digit addition problems with and without regrouping.
- Add and subtract using various objects, and write number sentences.
- Recognize coin values, and count coin combinations to 50 cents.

Patterns and Relationships

- Understand the concept of place value for ones and tens place.
- Recognize number and pictorial patterns (skip counting, odd/even, and color/shape).
- Understand that fact families relate addition and subtraction.

Geometry

- Identify and describe geometric shapes as plane figures (circle, square, triangle, and rectangle) and as solid figures (sphere, cube, cylinder, and cone).

Measurement

- Tell time to the hour and half-hour.
- Use nonstandard units (paper clips, Popsicle sticks, etc.) to estimate and measure length, weight, and capacity.
- Categorize temperatures.
- Understand that the area of one surface is greater than, equal to, or less than the area of another surface.

Probability and Statistics

- Collect, sort, and organize data to make real-object, picture, and bar graphs to interpret information.

Competencies:

During 2nd grade, students will

- Understand and use second-grade mathematics vocabulary.
- Follow a 4-step problem-solving plan (such as Big Q, window pane, or list) that uses multiple strategies to solve application-level word problems and requires students to justify their thinking.

Number and Operations

- Read and write numbers to 999.
- Compare and order numbers through 999, using greater than ($>$), less than ($<$), and equal ($=$).
- Recall and apply addition facts with sums to 18.
- Apply subtraction facts through 18.
- Solve two-digit addition and subtraction problems with and without regrouping.
- Count mixed coin combinations up to one dollar.
- Use fractions to name parts of a whole and parts of sets, up through twelfths (example: $\frac{5}{12}$ = five eggs out of a dozen eggs).
- Use objects to create and describe multiplication and division concepts.

Patterns and Relationships

- Use object and number patterns to make predictions or to extend a pattern.
- Understand concepts of place value, through the hundreds place.
- Understand that money amounts can be written using the symbols ¢ and $\text{\$}$.
- Show that fact families relate addition and subtraction.

Geometry

- Compare characteristics of plane figures (hexagon, pentagon, and octagon) and solid figures (rectangular prism and triangular prism).
- Locate and name whole numbers on a number line.

Measurement

- Tell time in hours and minutes.

- Measure and estimate metric and customary units of measurement for length, weight, temperature, and capacity.
- Use tools such as rulers, thermometers, scales, etc.
- Understand that area is measured in square units.

Probability and Statistics

- Collect and graph data, and draw conclusions from bar and picture graphs.

Outside of School:

As parents, you can provide opportunities for your 2nd grader to

- Use flashcards, board games, and calculators to practice addition and subtraction facts to 18.
- Practice telling time.
- Use money in real-life situations.
- Count pocket change.
- Play math games
- Identify geometric shapes in your home or environment.
- Correct mistakes on math papers after you have checked over them.
- Measure for you.
- Use coins instead of bills (example: allowance).
- Make up word problems with you using newspapers and other familiar sources.

Science

Prerequisites:

Before entering 2nd grade, students should be able to

- Identify and use tools such as a ruler, hand lens, balance, thermometer, and clock.
- Be aware of four steps in a scientific process.
- Follow science lab safety rules.
- Use standard and nonstandard units of measurement for finding length (cm. and in.), weight, and capacity.
- Explain the characteristics of living and nonliving things.
- Explain similarities and differences between the basic needs of plants and animals.
- Understand the interdependence of plants and animals.

- Record observations of events such as weather, seasonal changes, and life cycles.
- Identify solids and liquids.
- Sort objects based on physical properties, including solids and liquids.
- Observe forces such as a push or a pull.

Competencies:

During 2nd grade, students will

- Use a scientific process in investigations.
- Use metric measurement for temperature, length, and mass.
- Recognize stages of cycles, such as plant and animal life, day and night, seasons, and weather.
- Collect and record data using tools such as rulers, meter sticks, measuring cups, hand lenses, computers, clocks, thermometers, and balances.
- Follow science lab safety rules.
- Classify and sequence objects, organisms, and events based on properties and patterns.
- Identify external characteristics of plants and animals, their habitats, and their interdependent relationships.
- Identify uses of and ways to conserve natural resources.
- Demonstrate push and pull forces.

Outside of School:

As parents, you can provide opportunities for your 2nd grader to

- Measure while cooking, sewing, or building.
- Discuss natural events (steam, fog, rain, etc.).
- Visit museums, zoos, and parks.
- Raise and observe plants and/or animals.
- Go on nature walks and collect specimens.
- Participate in recycling.
- Watch educational programs.
- Keep a journal.
- Read nonfiction books on science topics.

Social Studies

Prerequisites:

Before entering 2nd grade, students should be able to

- Identify holidays and celebrations.
- Distinguish past, present, and future events by using calendars and timelines.

- Locate places on maps and globes using the four basic cardinal directions (north, south, east, west).
- Explain and give examples of rules and laws in the home, school, and community.
- Give examples of technology's influences on daily life in the past and present.
- Identify leaders in the community, state, and nation.
- Describe various customs and traditions of families, and explain their importance.
- Write a simple sentence beginning with a capital letter and ending with the appropriate punctuation.
- Spell first-grade words correctly.

Competencies:

During 2nd grade, students will

- Identify major landforms of places and regions, including the continents and oceans.
- Use basic geographic tools such as the legend, title, compass rose, and cardinal directions (north, south, east, west) to locate places on maps and globes.
- Identify and locate the continents on a world map.
- Identify and explain the significance of selected Texas symbols and landmarks.
- Identify and explain the significance of selected celebrations of the community, state, and nation, such as Memorial Day and Independence Day.
- Explain how people depend on natural resources to provide for their basic needs of food, clothing, and shelter.
- Identify ways in which people have modified the environment by building roads and clearing land.
- Identify and demonstrate the characteristics of good citizenship as modeled by historic figures and ordinary people.
- Understand the significance of works of art in the local community.
- Distinguish between and among city, state, country, and continent.
- Explain how work provides income to purchase goods and services.
- Distinguish between producers and consumers.
- Trace the development of a product from a natural resource to a finished product.

- Compare the roles of public officials, including mayor, governor, and president.
- Describe how science and technology have changed communication, transportation, recreation, and the ways in which people meet their basic needs.
- Explain how local people and events have shaped local community history.
- Identify historical figures and ordinary people who helped to shape the state and nation.
- Create and interpret timelines, charts, and maps.
- Use vocabulary related to the past, present, and future to interpret timelines and to read calendars.
- Sequence and categorize information.
- Interpret stories and pictures by identifying the main idea, predicting, and comparing/contrasting.
- Demonstrate effective oral and written communication skills.
- Demonstrate both individual and cooperative problem-solving and decision-making skills.

Outside of School:

As parents, you can provide opportunities for your 2nd grader to

- Recognize and recall his or her complete address, including the city, state, and country.
- Discuss world events on a daily basis, and locate places on a map or globe.
- Discuss the importance of rules and laws.
- Talk about the characteristics of good citizenship.
- Learn about your family's cultural heritage.
- Practice locating the continents on a world map.
- Create maps and map keys.
- Explore the geography of your community and beyond.
- Identify what types of animals, plants, and landforms can be found locally.
- Visit historical sites and museums.
- Attend various cultural activities and festivals.