

Grade 3

Reading/Language Arts

Prerequisites:

Before entering 3rd grade, students should be able to

- Listen and respond properly to two-step directions, questions, stories, poems, and presentations.
- Read high-frequency words easily, and apply knowledge of phonics and word parts to read words of more than one syllable.
- Read second-grade-level material silently for at least 20 minutes daily, at a rate of 90 words per minute.
- Show understanding of stories by putting story events in order, finding cause-and-effect, and recalling and locating details.
- Use prewriting, composing, and revising strategies to develop friendly letters, how-to paragraphs, stories, poems, and simple research papers.
- Spell words correctly from second-grade spelling lists.
- Edit sentences for capitalization (proper nouns, first letters in sentences, and "I").
- Edit sentences for punctuation (abbreviations; ends of sentences; commas for date, city/state, greeting and closing of a letter; and apostrophes in contractions).
- Write in complete sentences, and revise to include specific nouns, colorful adjectives, and vivid verbs.
- Show mastery of printing by using proper size, spacing, and margins.

Competencies:

During 3rd grade, students will

- Listen and respond courteously and properly to multiple-step directions, questions, speakers, and presentations.
- Express ideas by using correct grammar and well-developed sentences in everyday speech, class discussions, and presentations.
- Use phonics, syllables, root words, prefixes and suffixes, and context clues to read new words.

- Read silently from third-grade-level material for at least 30 minutes and at a rate of 110 words per minute.
- Learn new words using prior knowledge, context clues, and dictionary skills to develop an understanding of synonyms, antonyms, and multiple-meaning words.
- Show understanding of reading by finding stated main ideas; summarizing; putting events in order; seeing cause-and-effect relationships, character traits, and cultural influences; and recognizing statements of fact and opinion.
- Check for understanding using strategies, such as rereading, searching for clues, asking for help, and citing portions of the text being discussed to support ideas and inferences.
- Read and recognize different types of literature, such as fiction, nonfiction, poetry, fairy tales, and biographies.
- Take notes from sources, such as classroom guests, encyclopedias, books, and media sources.
- Learn cursive letter formation using correct size, spacing, and margins.
- Apply capitalization rules (friendly letters, titles, and proper nouns).
- Apply punctuation rules (commas in a series, apostrophes in singular possessives, and quotation marks for titles when needed).
- Spell third-grade-level words accurately in all written assignments.
- Write well-developed sentences and correctly-structured paragraphs that include topic and concluding sentences.
- Write stories, poems, and research papers, and check to see that the purpose has been met.
- Use brainstorming, composing, and revising strategies in developing written products.
- Learn keyboarding skills and use the computer to publish writing.

Outside of School:

As parents, you can provide opportunities for your 3rd grader to

- Read aloud to you and read silently.
- Retell a story he or she has read.
- Keep a journal to record family events.
- Write friendly letters.
- Answer your questions about what is happening during TV shows. (examples: What

do you think will happen next? How do you think that character is feeling?)

- Study spelling words.
- Use the public library.
- Receive books and magazine subscriptions as gifts.

Mathematics

Prerequisites:

Before entering 3rd grade, students should be able to

- 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 explain and 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.
- Count mixed coin combinations up to one dollar.
- Use fractions to name parts of a whole and parts of sets, up through twelfths.
- Use knowledge of fact families and place value to add and subtract two-digit numbers with and without regrouping.

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.

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.

Competencies:

During 3rd grade, students will

- Understand and use third-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 explain and justify their thinking.

Number and Operations

- Read, write, and identify place values for numbers through 999,999.
- Compare and order numbers through 9,999.
- Round two- and three-digit numbers.
- Use objects to identify, construct, and compare fractional parts of whole objects or sets of objects (up to twelfths).
- Recall all addition facts through 18 with increasing speed.
- Solve addition and subtraction problems with three digits, with and without regrouping.
- Estimate sums and differences.
- Use objects to learn and apply multiplication facts through tens.
- Solve and write multiplication problems with one-digit multipliers (example: 12×6 or 21×5).
- Use objects or pictures to solve division problems.
- Determine the value of a collection of coins and bills.

Patterns and Relationships

- Identify number patterns using addition and subtraction.
- Understand that fact families relate multiplication and division.
- Identify and extend number and geometric patterns.

- Make and extend a table of paired numbers such as insects and legs.

Geometry

- Identify congruent shapes and lines of symmetry.
- Describe plane and solid figures, using formal geometric terms (vertices, edges, faces, etc.).
- Locate and name whole numbers and fractions on a number line.

Measurement

- Use a thermometer to measure temperature.
- Estimate and measure length using customary and metric units.
- Solve perimeter problems.
- Use grids to find the areas of shapes.
- Describe time on clocks.
- Understand the concept of volume.
- Know benchmarks for standard units of measure for capacity, length, and weight/mass.

Probability and Statistics

- Collect, organize, record, display, and interpret data in pictographs and bar graphs.
- Use data to describe events as less likely, more likely, or equally likely.

Outside of School:

As parents, you can provide opportunities for your 3rd grader to

- Use flashcards, board games, calculators, and computers to practice addition facts.
- Practice using money in situations, such as getting change for purchases at the store or receiving allowance in coins.
- Practice telling time.
- Use measurement skills in real-life situations, such as weighing food at a grocery store, measuring liquids when cooking, charting height or weight, or measuring the distance between points (rooms, houses, stores, etc.).
- Play games that emphasize math skills (dominoes, cards, Monopoly) or logical strategies (chess, cards, Battleship).
- Communicate with you about what he or she learned in school, including math vocabulary.

Science

Prerequisites:

Before entering 3rd grade, students should be able to

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

Competencies:

During 3rd grade, students will

- Plan and implement investigations using a scientific process.
- Analyze and interpret information to construct explanations.
- Construct simple graphs, tables, maps, and charts to organize, examine, and evaluate information.
- Collect and analyze information using tools such as rulers, meter sticks, measuring cups, hand lenses, computers, clocks, thermometers, and balances.
- Identify properties of matter—solid, liquid, or gas.
- Identify slow and rapid forces that can change the earth's surface (glaciers, earthquakes).
- Understand the interdependence of plants and animals and the characteristics and adaptations necessary for survival.
- List and describe planets of the solar system.
- Identify and describe the importance of natural resources such as rocks, soil, water, gases of the atmosphere, and heat energy.

- Observe simple systems, and describe the roles of their parts, such as ecosystems and simple and complex machines (scissors, yo-yo, gears).
- Follow lab safety procedures.
- Recognize forces, such as gravity, friction, and push or pull.

Outside of School:

As parents, you can provide opportunities for your 3rd grader to

- Read nonfiction books on science topics.
- Visit museums, zoos, parks, or NASA.
- Help at home by preparing food, using recipes, weighing items at the grocery store, and measuring with household tools in real-life situations.
- Watch educational television such as *Bill Nye the Science Guy*, *The Magic School Bus*, *Investigator Alligator*, or the Discovery Channel.
- Discuss cycles and changes in the natural environment.
- Practice conservation and recycling.
- Share homework, science notes, and journals with you.

Social Studies

Prerequisites:

Before entering 3rd grade, students should be able to

- Create timelines, charts, and maps.
- Identify and locate the continents on a world map.
- Identify major landforms of places and regions, including the continents and oceans.
- Distinguish between producers and consumers.
- Explain how people depend on natural resources to provide for their basic needs of food, clothing, and shelter.
- 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.
- Distinguish between and among city, state, country, and continent.
- Identify and demonstrate the characteristics of good citizenship as modeled by historic figures and ordinary people.

- Explain how work provides income to purchase goods and services.
- Identify the roles of public officials, including mayor, governor, and president.

Competencies:

During 3rd grade, students will

- Describe how individuals, events, and ideas have changed communities over time.
- Identify reasons people have formed communities, including a need for security, law, and material well-being.
- Compare ways people in different communities adapt to or change the physical environment.
- Identify and locate the states of the United States on a map.
- Use basic geographic tools to locate places on maps and globes (compass rose, grids, symbols, hemispheres, legends, and map scale).
- Use cardinal (north, south, east, west) and intermediate (northwest, northeast, southwest, southeast) directions to locate places on maps and globes.
- Create, color, and label maps accurately.
- Locate the 50 states, the seven continents, the five oceans, and the four hemispheres on maps.
- Describe and explain climate, landforms, and natural resources.
- Identify ways of earning, spending, and saving money.
- Explain the concept of a free market.
- Describe how a simple business operates within a free enterprise system.
- Define and identify examples of scarcity.
- Describe the basic structure and function of local government.
- Identify the characteristics of good citizenship, including actions individuals can take to improve the community.
- Explain and compare the significance of cultural celebrations.
- Understand the importance of writers and artists to cultural heritage.
- Use vocabulary related to time, including past, present, and future times.
- Identify individuals who have created or invented new technology that changed life in communities, past and present.

- Locate information in the textbook and other resource materials.
- Understand and use information from a variety of sources by identifying the main idea, identifying cause-and-effect relationships, sequencing and categorizing information, and comparing/contrasting.
- Interpret and create graphs, charts, tables, timelines, and maps.
- 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 3rd grader to

- See various places of interest in the Houston area.
- Create maps to show locations.
- Practice locating the states of the United States on a map.
- Use a variety of sources to locate, discuss, and summarize current events.

Grade 4

Reading/Language Arts

Prerequisites:

Before entering 4th grade, students should be able to

- Pay attention and use good manners when responding to multiple-step oral directions, questions, speakers, and presentations.
- Use correct grammar when speaking.
- Read third-grade-level material silently for at least 30 minutes daily, at 110 words per minute.
- Show understanding of third-grade-level reading materials.
- Use proper cursive letter formation and spacing.
- Write paragraphs that are grammatically correct, well-developed and correctly structured.
- Write comparison/contrast papers, stories, instructions, research papers, letters, and poems,

and check to see that the writing purpose has been met.

- Spell third-grade-level words accurately in all written assignments.
- Apply capitalization rules (friendly letters, titles, proper nouns).
- Apply punctuation rules (commas in a series, apostrophes in singular possessives, and quotation marks for titles).

Competencies:

During 4th grade, students will

- Listen with respect and respond to complex oral directions and a variety of presentations.
- Use correct voice tone, eye contact, and standard English in classroom discussions, reports, and presentations.
- Read new multi-syllable words in fourth grade material by using phonics, word parts, and context clues.
- Establish their own purposes for reading, read silently for at least 40 minutes, adjust the reading rate to suit the need, self-correct as necessary, and maintain a rate of 130 words per minute in familiar material.
- Learn new words through word study, context clues, dictionaries, and thesauruses.
- Find implied main idea by noting details and summarizing text.
- Check understanding of grade-level materials and make needed changes by rereading, searching for clues, using reference aids, and asking questions.
- Read realistic fiction, fantasies, mysteries, biographies, nonfiction, poetry, and classic literature, including books with chapters and books from a variety of cultures.
- Use multiple sources, such as dictionaries, encyclopedias, electronic texts, parts of a book, and library tools for researching answers to questions.
- Write legibly (both cursive and printing) for varying purposes.
- Use proper capitalization and punctuation (dialogue and titles).
- Apply spelling rules and patterns with increasing accuracy in all writing.
- Write compositions which contain well-constructed, well-developed paragraphs that