

Fourth Grade Curriculum Information

Revised: August 2017

ART

I. Overview/Course Description

Fourth grade children have the opportunity to explore and discuss a wide range of two- and three-dimensional forms of art. This class encourages fourth grade children, through a hands-on approach, to experience a variety of media, learn more advanced techniques, and sharpen their maturing appreciation of many artists and artistic styles. A strengthening of their basic design knowledge and skills is fostered through each assignment.

II. Course Outline/Primary Units of Study

- A. Exploring Color and Value in Art
 - 1. Greek Vase Still Life (ancient art)
 - 2. American artist study (literature connection, Language Arts collaboration)
 - 3. Value Lights
 - 4. Fish drawing
- B. Figures, Proportions in Art
 - 1. Roman Senator (human proportions, sculpture in ancient Rome)
 - 2. Horse Silhouette (drawing from a model, observation & imagination)
- C. Exploring Art Forms
 - 1. Rose Window (Gothic art, stained glass, radial balance)
 - 2. Radial CD Weaving (fiber art)
 - 3. Assemblage after Louise Nevelson
 - 4. Tile Printmaking: pattern and repetition
- D. Exploring Art Styles
 - 1. Zinnia Folk Art Still Life painting after Clementine Hunter (female African-American artist)
 - 2. Barns after Grant Wood: Regionalism (tempera painting techniques)
 - 3. Iguana or Chameleon Watercolor after Henri Rousseau's Primitive Style

III. Materials, Resources, Books, Textbooks

- A. *Drawing with Children*, Mona Brookes
- B. "Getting to Know" art video series
- C. *Built to Last*, David Macauley
- D. Various handouts on drawing, how to draw from multiple sources
- E. Art print handouts from various masters and cultural time periods
- F. Projected artwork from various museum sites
- G. Media: Marker, art pencils, colored pencils, tempera paint, watercolor, chalk pastel, oil pastel, collage, assemblage, mixed media, weaving

IV. Objectives/Skills

- A. Methods, Materials, Techniques
 - 1. Develop skills using dry media including pencil, crayons, markers, chalk and oil pastels
 - 2. Develop skills using wet media including tempera and watercolor paint and proper brush handling to explore and mix paints
 - 3. Develop assemblage and collage techniques including proper handling of scissors and glue
 - 4. Develop printmaking and stamp printing techniques
 - 5. Use methods to create a textile artwork (weaving)
 - 6. Practice skills in 3-D materials such as cardboard, found objects

B. Elements of Design

1. Develop skills using LINE including angular, hatched and crosshatched
2. Identify, name and mix PRIMARY and SECONDARY COLORS to create INTERMEDIATE COLORS
3. Identify and use WARM & COOL COLORS and COMPLEMENTARY COLORS in an artwork
4. Create VALUES: TINTS (add white) and SHADES (add black) of a color.
5. Identify and use ORGANIC (irregular) and GEOMETRIC SHAPES (square, circle, triangle, etc.) in an artwork
6. Distinguish between tactile and visual TEXTURE and create texture in artwork
7. Identify ORGANIC and GEOMETRIC FORMS and use them in an artwork
8. Distinguish between POSITIVE and NEGATIVE SPACE and foreground and background in an artwork

C. Principles of Design

1. Name, identify and use UNITY, VARIETY, EMPHASIS, BALANCE, PROPORTION, PATTERN, RHYTHM in artwork.
2. Identify and use symmetrical, asymmetrical and radial BALANCE in artwork
3. Recognize and use PROPORTION as size relationships to indicate distances
4. Introduce EMPHASIS in creating a focal point in a composition
5. Develop skills in using horizon line, foreground, middleground, background and overlapping and size change for depth creation in a composition

D. Observation, Expression, Planning, Exhibiting

1. Understand still life, landscape, portrait and figures in creating artworks through direct observation and discussion
2. Practice ways to describe, group categories, and discuss similarities and differences in art regarding a culture or style
3. Practice how to present work, make decisions, and explain process in creating artwork
4. Introduce digital media and technology as means of documenting or creating art
5. Consistently care for own artwork through use of a portfolio to document and evaluate artistic development
6. Consistently demonstrate cautious respect for art materials and tools
7. Consistently demonstrate caring for and cleaning of art materials and tools

V. Assessments

- A. Rubrics listing skills for each project
- B. Teacher observation
- C. Oral group critiques
- D. Individual-written critiques
- E. Student participation

LANGUAGE ARTS

I. Overview/Course Description

Students in fourth grade will read independently, as well as in a variety of groups, to acquire knowledge and information relating to all content areas. Fourth grade children are given guidance toward quality genres of literature and are responsible for sharing their knowledge in various methods within the classroom such as written book reports and book talks. Activities that highlight grammar, punctuation, and the mechanics of writing are assigned to strengthen students' reading and writing skills. Student vocabulary is strengthened through the use of vocabulary units that challenge students to identify relationships among word groups. Throughout the course of the fourth grade school year, students will display growth in the contents of reading and writing through application of learned skills.

II. Course Outline/Primary Units of Study

Reading

- A. Independent reading, book clubs, and whole class reading to acquire content and knowledge across subject areas
- B. The study of various genres including mysteries, autobiography/biography, informational text, poetry, and realistic fiction
- C. Figurative language
- D. Point of View
- E. Author's purpose
- F. Text features (nonfiction and fiction).
- G. Reader response and making connections

Writing

- A. Reinforcing previously-learned skills
- B. Purposes for writing
- C. Developing a well-structured essay
- D. Use of transitions
- E. Effective note-taking skills
- F. Narrative, expository/informational, and persuasive/opinion writing
- G. Journaling, reader response, letters, narratives, expository, and creative writing

Handwriting

- A. Uses cursive fluently
- B. Typing skills

Spelling/Vocabulary

- A. *Everyday Spelling* program
- B. Vocabulary in context through novels and content (Social Studies connections)
- C. Word study focusing on Greek and Latin prefixes, suffixes, and roots

Grammar

- A. Reinforce previously learned skills
- B. Parts of speech
- C. Commas, apostrophes, quotation marks, semi-colons, parenthesis, and hyphen rules
- D. Reinforced through model text, grammar practice, and writing practice

III. Materials, Resources, Books, Textbooks

- A. *From the Mixed-Up Files of Mrs. Basil E. Frankweiler* by E.L. Konigsburg
- B. *Love That Dog* by Sharon Creech
- C. *Absolutely, Almost* by Lisa Graff
- D. *The Lemonade Wars* by Jacqueline Davies
- E. Book Club novels
- F. *Everyday Spelling* Workbook
- G. *Handwriting Without Tears* Workbook, Grade 4/Guidelines when needed

IV. Objectives/Skills

Reading

- A. Comprehends when reading at grade level or higher
- B. Engages in silent reading activities
- C. Engages in group and whole-class reading activities
- D. Reads with accuracy
- E. Uses Context clues to determine the meaning of unfamiliar words when reading
- F. Responds to reading through writing, using evidence from the text to support understanding

Writing

- A. Transfers spelling knowledge to written pieces
- B. Understands new vocabulary and applies it when reading and writing
- C. Transfers grammar skills into written pieces
- D. Handwriting and Keyboarding Skills
- E. Narrative Overall: The writer wrote the important part of an event bit by bit and took out unimportant events.
- F. Expository/Informational Overall: The writer taught readers different things about a subject. He/she put facts, details, quotes and ideas into each part of his/her writing.
- G. Persuasive/Opinion/Argumentative Overall: The writer made a claim about a topic or a text and tried to support his/her reasons

Handwriting

- A. Uses cursive fluently
- B. Typing skills are appropriate for the grade level

Spelling/Vocabulary

- A. Can accurately spell words in a range appropriate to grade level
- B. Continues to show success in building upon vocabulary skills

V. Assessments

- A. Written
- B. Application of learning in projects
- C. Spelling tests
- D. Word study tests (prefixes, suffixes, and roots)
- E. Novel tests

MATHEMATICS

I. Overview/Course Description

Fourth grade utilizes the *Singapore Primary Mathematics* program which enables students to encounter math in a meaningful way and translates mathematical skills from the concrete to the abstract. Skills are developmentally progressive from previous grades and guide students to develop logical thinking and critical problem-solving skills. Students learn to identify alternative algorithms, and cover geometric figures, multiplication and division, number sentences, decimals, estimation, computation, measures of angles, fractions, chance and probability, perimeter and area, percent, reflections and symmetry, shapes, weight, volume and capacity, and rates.

II. Course Outline/Primary Units of Study

- A. Whole Numbers
 - 1. Ten thousands, hundred thousands, millions
 - 2. Approximation
 - 3. Factors
 - 4. Multiples
 - 5. Negative numbers
- B. The Four Operations of Whole Numbers
 - 1. Addition and subtraction
 - 2. Multiplication and division
 - 3. Multiplication by a 2-digit number
- C. Fractions
 - 1. Equivalent fractions
 - 2. Addition and subtraction
 - 3. Mixed numbers
 - 4. Improper fractions

- 5. Fractions and division
- 6. Fraction of a set
- D. Geometry
 - 1. Right angles
 - 2. Measuring angles
 - 3. Perpendicular lines
 - 4. Quadrilaterals
 - 5. Triangles, circles
 - 6. Solid figures
 - 7. Nets
- E. Area and Perimeter
 - 1. Area and perimeter of shapes
 - 2. Composite figures
- F. Decimals
 - 1. Tenths, hundredths, thousandths
 - 2. Rounding, estimating
- G. The Four Operations of Decimals
 - 1. Addition, subtraction
 - 2. Multiplication, division
- H. Congruent and Symmetric Figures
 - 1. Congruent figures
 - 2. Tiling patterns
 - 3. Line symmetry
 - 4. Rotational symmetry
- I. Coordinate Graphs and Changes in Quantities
 - 1. The coordinate grid
 - 2. Changes in quantities
 - 3. Graphing changes in quantities
- J. Data Analysis
 - 1. Organizing and analyzing data
 - 2. Probability experiments
 - 3. Order of outcomes
 - 4. Bar and line graphs
- K. Measures and Volume
 - 1. Addition, subtraction measures
 - 2. Multiplication, division measures
 - 3. Cubic units
 - 4. Volume of a rectangular prism

III. Materials, Resources, Books, Textbooks

- A. *Singapore Math* 4A, 4B Textbooks
- B. *Singapore Math* 4A, 4B Student Workbooks
- C. Variety of manipulative materials and learning stations

IV. Objectives/Skills

- A. Understands place value up to 1,000,000
- B. Proficient with basic addition and subtraction computations
- C. Demonstrates quick recall of multiplication facts up to 12 X 12
- D. Proficient with multiplication using 2-digit numbers
- E. Proficient with division using 1-digit divisors
- F. Employs different strategies to solve word problems using all four operations
- G. Makes reasonable estimates with all four operations

- H. Solves problems involving fractions, mixed numbers, and equivalency
- I. Understands geometrical concepts including angles, lines, two- and three-dimensional shapes
- J. Understands area and perimeter
- K. Understands decimals up to thousandths
- L. Proficient with addition/subtraction and multiplication/division of decimals
- M. Identifies congruency, tessellations, and line of symmetry
- N. Identifies and graphs ordered pairs on a coordinate grid
- O. Organizes, analyzes data including median and mode from line and bar graphs
- P. Uses measurement, standard and metric, to solve problems

V. Assessments

- A. Chapter & unit review/test
- B. Teacher observation
- C. Performance in workbook
- D. Class participation

MUSIC

I. Overview/Course Description

Fourth graders in music learn to read, write, sing, and play the melody on instruments including the voice and recorder. Students learn to read, write, sing, and play the harmony on multiple instruments including the voice, the xylophone, the glockenspiel, West-African drums, and the ukulele.

II. Course Outline/Primary Units of Study

Students in the fourth grade use the elements of Rhythm, Melody, Harmony, Form, and Timbre to build their knowledge and skill level in music. Songs and dances from different cultures are implemented in order to give as much experience to the fourth grade student as possible in the world of music.

A. Rhythm

1. Demonstrate pulse, which is a foundation on which the rest of their musical development depends.
2. Experience and identify syncopated rhythms.
3. Demonstrate the question-answer technique used in many improvisational forms on instruments and body percussion.
4. Label the eighth rest.
5. Experience and understand accelerando and ritardando.
6. Label the term “pick-up”, and are able to effectively demonstrate it on an instrument.
7. Visualize the 6/8 time signature.
8. Identify a triplet.
9. Taught various rhythmic strumming techniques on the ukulele to accompany a melody.
10. Taught how to produce sophisticated rhythm patterns on the recorder.

B. Melody

1. Develop a repertoire of songs including folk, seasonal, multicultural, and patriotic songs.
2. Review the treble clef lines and spaces.
3. Experience all common treble clef notes on the recorder.
4. Demonstrate the question-answer technique on the recorder.
5. Experience countermelody.
6. Identify ledger lines.

7. Experience a major scale.
 8. Label sharps and flats.
- C. Harmony
1. Demonstrate proper mallet technique.
 2. Experience canons and rounds.
 3. Distinguish between major and minor tonalities.
 4. Experience a I-V chord change.
 5. Learn many chords on the ukulele to accompany their singing.
- D. Form
1. Demonstrate understanding of a phrase.
 2. Experience rondo form.
 3. Label D.C. al Fine, which increases their abilities to read music.
 4. Experience 12-bar blues.
- E. Timbre
1. Identify instruments in the recorder family.
 2. Study extensively the orchestral woodwind and brass family.
 3. Identify and are able to demonstrate the dynamics of pianissimo and fortissimo.
- F. Performances: Students spend at minimum a month prior to each performance rehearsing performance etiquette and technical accuracy on their speaking, choral or instrument part.
1. Veterans Day (November)
 2. Fine Arts Week performance
 3. Grandparents Day (April)

III. Materials, Resources, Books, Textbooks

- A. *Game Plan Grade 4* Jeff Kriske, Randy Delelles
- B. *Rainbow Ukulele* Shelley Tomich
- C. *Recorder Karate* Barb Philipak
- D. *Ukulele for Kids* – The Hal Leonard Ukulele Method

IV. Objectives/Skills

- A. Interacts respectfully with others
- B. Displays appropriate listening habits
- C. Uses materials responsibly
- D. Follows classroom procedures
- E. Demonstrates responsibility for performances
- F. Developing proper vocal technique
- G. Developing rhythmic notational reading skills
- H. Developing melodic notational reading skills
- I. Demonstrates proper recorder intonation
- J. Demonstrates proper recorder fingering
- K. Developing ukulele strumming patterns
- L. Developing ukulele fingering
- M. Uses music as a means of creative expression

V. Assessments

- A. Teacher observation
- B. Class participation
- C. Performance participation
- D. Periodic student written assessments
- E. Homework assignments

PHYSICAL EDUCATION

I. Overview/Course Description

Through skill drills and games, fourth grade students begin to put all skills and movement patterns into team games. Game concepts, strategies and positioning continue to be taught and practiced. Sportsmanship is stressed in the competitive-game situations, while demonstrating respect for opponents and pride in their own performance. Fitness concepts continue to be taught and practiced.

II. Course Outline/Primary Units of Study

- A. Individual and Team Sports
- B. Jump Roping
- C. Overhand Throwing and Track and Field

III. Materials, Resources, Books, Textbooks

- A. *Shape America*
- B. *Active Games*
- C. *Lead-Up Games for Super Sports*

IV. Objectives/Skills

- A. Responds to win/lose situations with sportsmanship
- B. Demonstrates fundamental large gross-motor skills
- C. Develops spatial, body awareness
- D. Develops basic hand/eye and foot/eye coordination
- E. Demonstrates skills of overhand and underhand throw, catching
- F. Demonstrates skills of dribbling, passing, and shooting
- G. Demonstrates striking skills using a variety of equipment
- H. Displays knowledge of game rules, concepts, and strategies
- I. Demonstrates age-appropriate balance, flexibility, and coordination
- J. Demonstrates manipulative and muscular strength/endurance skills
- K. Demonstrates cardio-respiratory endurance
- L. Demonstrates effort on Fitness Frenzy Days
- M. Demonstrates skills in dynamic movements, reaction time, and speed/agility
- N. Works appropriately in partner and group settings
- O. Demonstrates the ability to use equipment and space properly

V. Assessments

- A. Teacher observation
- B. Self and peer evaluation
- C. Teacher-created tests

SCIENCE

I. Overview/Course Description

Our fourth grade program utilizes Pearson's *Interactive Science, Texas Edition* curriculum. The school provides each fourth grader with an *Interactive Science* textbook that includes interactive text, science inquiries, and links to digital lessons and activities. The textbook belongs to the student, and daily lessons will involve interaction with text and images that will help with the development of good study skills. Students can expect to engage in a variety of hands-on science inquiry activities during each unit of study. Investigations throughout the year will focus on organisms and ecosystems, space patterns and Earth's resources, and properties of matter and energy. Chapter checkpoints will focus on mastery of key concepts and vocabulary, while unit tests will focus on mastery of concepts and skills learned during an entire unit. Core units of

study are taught in a spiral pattern from year to year, building on previous learning in order to develop depth of knowledge and further understanding in many of the same overall topics with new learning opportunities as the grades advance.

II. Course Outline/Primary Units of Study

- A. Earth Science
 - 1. Earth's Resources
 - a. Properties of soil
 - b. Weathering, erosion, deposition
 - c. Natural resources
 - d. How humans change Earth's surface
 - 2. Earth's Patterns
 - a. Understanding the water cycle
 - b. Measuring and predicting weather
 - c. Earth's movement
 - d. Phases of the moon
- B. Physical Science
 - 1. Matter
 - a. Properties of matter
 - b. Measurement of matter
 - c. States of matter
 - d. Mixtures and solutions
 - 2. Energy and Forces
 - a. Forms of energy
 - b. Light energy
 - c. Heat
 - d. How forces affect objects
 - 3. Electricity and Magnetism
 - a. Electrical circuits
 - b. Magnetism
 - c. Transformation of electricity and magnetism
- C. Life Science
 - 1. Plants and Animals
 - a. Adaptations
 - b. Inherited characteristics of plants and animals
 - c. How animals respond to the environment
 - d. Plant life cycles
 - e. Animal life cycles
 - 2. Ecosystems
 - a. Characteristics of ecosystems
 - b. How organisms get energy from ecosystems
 - c. Food chains and food webs

III. Materials, Resources, Books, Textbooks

- A. Pearson *Interactive Science, Texas Edition* Student Textbook/Workboo
- B. Pearson *Interactive Science, Texas Edition* online material: pearsontexas.com
- C. Teacher-created supplemental materials
- D. Materials for labs defined in the Pearson *Interactive Science* Teacher's Edition & Resource book
- E. Various web-based interactive activities and resources
- F. Guest speakers and programs and field trips

IV. Objectives/Skills

- A. Uses the Scientific Method to perform experiments
- B. Demonstrates safe lab practices including proper use of lab equipment during investigations
- C. Uses reliable sources to conduct scientific research and expresses findings in both written and oral formats
- D. Makes thoughtful observations and inferences while actively participating in experiments
- E. Lists examples of technology that affects our lives
- F. Describes the needs of plants and animals and how they interact with their nonliving Environment
- G. Identifies and describes patterns both on Earth and in space
- H. Identifies properties of matter and energy, including heat, electricity, magnetism, and motion

V. Assessments

- A. Hands-on investigations
- B. Journaling and other daily written and oral assignments
- C. Chapter checkpoints and unit tests
- D. Teacher observation

SOCIAL STUDIES

I. Overview/Course Description

Students in fourth grade social studies will acquire knowledge in reference to each of the regions of the United States of America. As students travel through the regions, they will participate in activities implementing the skills of economists, geographers, historians, and political scientists. In addition to discovering the importance of the roles of a social scientist to each region, students will engage in lessons to enhance their use of map skills. Students will be able to read a variety of maps, including political, physical, climate, and road maps, and be able to extract important information from maps. Students will also use primary sources and information texts to gather historical, economic, and political facts for each region of study. Students will apply their knowledge of the regions into activities are integrated with many language arts skills.

II. Course Outline/Primary Units of Study

- A. Economy
 - 1. Industry
 - 2. Agriculture and farming
 - 3. Mining and natural resources
- B. Geography
 - 1. Landforms in each region
 - 2. Borders and territories
 - 3. How geography impacts transportation, population, and economy
- C. History
 - 1. Mayflower Compact, building America
 - 2. Civil Rights Era
 - 3. Industrialization
 - 4. Land Rush
 - 5. Westward expansion
- D. Political Science

1. Democracy and the building of the American government

III. Materials, Resources, Books, Textbooks

- A. Online *Social Studies Alive* text and student resources
- B. Various informational texts
- C. Primary source documents such as the Mayflower Compact

IV. Objectives/Skills

- A. Uses reference materials including maps, primary sources, and informational text to gather information
- B. Organizes information in a logically written manner
- C. Demonstrates knowledge in the areas of economics, geography, history, and political science for each region of the United States
- D. Uses the social sciences to determine the importance of each U.S. region
- E. Communicates knowledge of each region effectively through writing, speaking, and application to media sources
- F. Demonstrates understanding of key vocabulary learned through each unit

V. Assessments

- A. Application of writing through both creative and expository writing.
- B. Quizzes and test that are both teacher created and from the resource of *Social Studies Alive*
- C. Geography challenges to assess map skills. These are created through Google Maps and *Social Studies Alive* curriculum
- D. Teacher interaction and observation

SPANISH

I. Overview/Course Description

Fourth grade students have a developmental foundation which allows them to begin a more formal approach to foreign language learning. The five basic skills for second language acquisition, listening, speaking, reading, writing, and cultural awareness, are emphasized in the content to maintain and strengthen foundational abilities. Fourth grade Spanish highlights basic grammar structures, such as gender, the formation of plurals, and subject-verb agreement.

II. Course Outline/Primary Units of Study

- A. Basic grammar structures such as gender, plurals, position and agreement of adjectives, subject-verb agreement
- B. Ask and answer questions in Spanish using authentic pronunciation and applying basic grammar rules
- C. Make connections between English and Spanish by recognizing cognates and comparing grammar structures
- D. Converse with peers in Spanish using new vocabulary and proper Spanish grammar
- E. Present information and ideas through speaking and writing exercises, such as presentations, narratives, and creating advertisements using cultural facts

III. Materials, Resources, Books, Textbooks

- A. Resource book, *Teach Them Spanish!*
- B. Spanish texts (fiction and nonfiction)
- C. Videos and recordings of native Spanish speakers
- D. Spanish/English dictionaries
- E. National Geographic (print and online) to research cultures

F. Spanish vocabulary games

IV. Objectives/Skills

- A. Demonstrate good oral and written comprehension
- B. Use correct pronunciation and an authentic accent
- C. Interact with peers through Spanish conversation
- D. Ask and answer questions using common Spanish phrases
- E. Demonstrate understanding of new vocabulary through reading, speaking, listening, and writing
- F. Use dictionary skills to learn new vocabulary
- G. Applies grammar rules when speaking and writing

V. Assessments

- A. Individual and group conversations in Spanish to demonstrate oral comprehension
- B. Checkpoints in which students answer questions about recent lesson content
- C. Recordings of students speaking to demonstrate proper pronunciation
- D. Student presentations of creative narratives and factual information
- E. Written assignments in which students demonstrate understanding of vocabulary and grammar rules

TECHNOLOGY

I. Overview/Course Description

By fourth grade, students are comfortable using technology tools appropriately and often for classroom work. They will be using email for connections with teachers and school work and will be introduced to and engaging with a school informational program called Haiku which they will use throughout their middle and upper school years. The fourth grade year focuses on depth study of innovative technologies, using more student-driven and open-ended projects. Also by fourth grade, students have a dedicated grade level set of chromebooks for fourth grade use only.

II. Course Outline/Primary Units of Study

- A. Foundational Skills - keyboarding, office applications, cloud computing
- B. Keyboarding/Typing Skills: Typing.com
- C. Research and topic presentations broadening the use of technology skills

III. Materials, Resources, Books, Textbooks

- A. HP laptops, chromebooks, iPads
- B. Typing program: Typing.com
- C. Microsoft Word, PowerPoint, and Excel
- D. Haiku

IV. Objectives/Skills

Foundational Skills

- A. Sustained keyboarding practice
- B. Classroom coordinated word processing, presentations, and spreadsheet practice
- C. Collaboration and communication
- D. Email skills are increased and used more and more by fourth grade

Technology Integration Projects

- A. By fourth grade, technology skills are used to forge into project and research zones
- B. Technology becomes more of a tool to support the various activities of fourth grade
- C. New students with lesser technology skills will have special time/training to pick up on

the needed areas or technology zones

V. Assessments

- A. Teacher observation
- B. Student participation
- C. Student-created projects and digital artifacts