

SMITHTOWN CENTRAL SCHOOL DISTRICT
Smithtown, New York

Fourth Grade NYS Standards Overview



Welcome to fourth grade. This overview, aligned with the New York State standards, is intended to provide you with a better understanding of what is expected of your child this year. We look forward to working together with you to guarantee that your child will have a positive educational experience.

English Language Arts – ELA

Reading Standards (Literary and Informational Text)

Key Ideas and Details

1. Locate and refer to relevant details and evidence when explaining what a text says explicitly/implicitly and make logical inferences
2. Determine a theme or central idea of text and explain how it is supported by key details; summarize a text
3. In literary texts, describe a character, setting, or event, drawing on specific details in the text. In informational texts, explain events, procedures, ideas, or concepts, including what happened and why, based on specific evidence from the text

Craft and Structure

4. Determine the meaning of words, phrases, figurative language, academic, and content-specific words
5. In literary texts, identify and analyze structural elements, using terms such as verse, rhythm, meter, characters, setting, dialogue, stage directions. In informational texts, identify the overall structure using terms such as sequence, comparison, cause/effect, and problem/solution
6. In literary texts, compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations. In informational texts, compare and contrast a primary and secondary source on the same event or topic

Integration of Knowledge and Ideas

7. Identify information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, illustrations), and explain how the information contributes to an understanding of the text
8. Explain how claims in a text are supported by relevant reasons and evidence
9. Recognize genres and make connections to other texts, ideas, cultural perspectives, eras, personal events, and situations

Reading Standards (Foundational Skills)

Phonics and Word Recognition

1. Know and apply grade-level phonics and word analysis skills in decoding words
 - a. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context

Fluency

2. Read grade-level text with sufficient accuracy and fluency to support comprehension
 - a. Read grade-level text across genres orally with accuracy, appropriate rate, and expression on successive readings
 - b. Use context to confirm or self-correct word recognition and understanding, rereading as necessary

Writing Standards

Text Types and Purposes

1. Write an argument to support claim(s), using clear reasons and relevant evidence
 - a. Introduce a precise claim, supported by well-organized facts and details, and organize the reasons and evidence logically
 - b. Use precise language and content-specific vocabulary
 - c. Use transitional words and phrases to connect ideas within categories of information
 - d. Provide a concluding statement or section related to the argument presented
2. Write informative/explanatory texts to explore a topic and convey ideas and information relevant to the subject
 - a. Introduce a topic clearly and organize related information in paragraphs and sections
 - b. Develop ideas on a topic with facts, definitions, concrete details, or other relevant information; include text features when useful for aiding comprehension
 - c. Use precise language and content-specific vocabulary
 - d. Use transitional words and phrases to connect ideas within categories of information
 - e. Provide a concluding statement or section related to the information or explanation presented
3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences
 - a. Establish a situation and introduce a narrator and/or characters
 - b. Use dialogue and description of actions, thoughts, and feelings to develop experiences and events or show the responses of characters to situations
 - c. Use transitional words and phrases to manage the sequence of events
 - d. Use concrete words and phrases and sensory details to convey experiences and events precisely
 - e. Provide a conclusion that follows from the narrated experiences or events

4. Create a poem, story, play, art work, or other response to a text, author, theme, or personal experience
5. Draw evidence from literary or informational texts to respond and support analysis, reflection, and research by applying the grade four Reading Standards

Research to Build and Present Knowledge

6. Conduct research to answer questions, including self-generated questions, and to build knowledge through investigating multiple aspects of a topic
7. Recall relevant information from experiences or gather relevant information from multiple sources; take notes and categorize information, and provide a list of sources

Speaking and Listening Standards

Comprehension and Collaboration

1. Engage effectively in a range of collaborative discussions with diverse partners, expressing ideas clearly, and building on those of others
 - a. Come to discussions prepared, having read or studied required material; draw on that preparation and other information known about the topic to explore ideas under discussion
 - b. Follow agreed-upon norms for discussions and carry out assigned roles
 - c. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others
 - d. Review the relevant ideas expressed and explain their own ideas and understanding of the discussion
2. Paraphrase portions of information presented in diverse formats (e.g., including visual, quantitative, and oral)
3. Identify and evaluate reasons and evidence a speaker provides to support particular points

Presentation of Knowledge and Ideas

4. Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace and appropriate volume for audience
5. Include digital media and/or visual displays in presentations to emphasize central ideas or themes
6. Distinguish between contexts that call for formal English versus/or informal discourse; use formal English when appropriate to task and situation

Language Standards

Conventions of Academic English/Language for Learning

1. Demonstrate command of the conventions of academic English grammar and usage when writing or speaking
2. Demonstrate command of the conventions of academic English capitalization, punctuation, and spelling when writing

Knowledge of Language

3. Use knowledge of language and its conventions when writing, speaking, reading, or listening
 - a. Choose words and phrases to convey ideas precisely
 - b. Choose punctuation for effect
 - c. Distinguish between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small group discussions)

Vocabulary Acquisition and Use

4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases, choosing flexibly from a range of strategies
 - a. Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase
 - b. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., telegraph, photograph, autograph)
 - c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses) to find the pronunciation and determine or clarify the precise meaning of key words and phrases
5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings
 - a. Explain the meaning of simple similes and metaphors in context
 - b. Recognize and explain the meaning of common idioms, adages, and proverbs
 - c. Demonstrate understanding of words by relating them to their antonyms and synonyms
6. Acquire and accurately use general academic and content-specific words and phrases, including those that signal actions, emotions, or states of being (e.g., *quizzed*, *whined*, *stammered*) and that are basic to a particular topic (e.g., *wildlife*, *conservation*, and *endangered* when discussing animal preservation)

MATHEMATICS

New York State standards in mathematics require that students focus on understanding concepts, be fluent in basic skills, and be able to apply problem solving strategies. The Standards of Mathematical Practices describe ways in which students should engage with the subject matter as they grow in mathematical maturity and expertise.

Mathematical Practices

1. Make sense of problems and persevere in solving them
2. Reason abstractly and quantitatively
3. Construct viable arguments and critique the reasoning of others
4. Model with mathematics
5. Use appropriate tools strategically
6. Attend to precision
7. Look for and make use of structure
8. Look for and express regularity in repeated reasoning

Operations and Algebraic Thinking

1. Use four operations with whole numbers to solve problems
2. Gain familiarity with factors and multiples from 1-100
3. Generate and analyze patterns

Number and Operations in Base Ten

1. Generalize place value understanding for multi-digit whole numbers
2. Use place value understanding and properties of operations to perform multi-digit arithmetic.
3. Fluently add and subtract multi-digit whole numbers
4. Multiply a whole number up to four digits by a one-digit number
5. Multiply two-digit by two-digit numbers
6. Divide four-digit dividends by one-digit divisors

Number & Operations-Fractions

1. Compare and order fractions using $>$, $=$, or $<$ by finding common denominators and using benchmark fractions
2. Add and subtract fractions with like denominators
3. Compose and decompose fractions
4. Add and subtract mixed numbers with like denominators
5. Multiply a fraction by a whole number
6. Solve word problems involving the addition and subtraction of fractions with like denominators and involving multiplication of a fraction by a whole number
7. Understand decimal notation for fractions, and compare decimal fractions.

8. Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use decimal notation to express these fractions
9. Compare two decimals using $>$, $=$, or $<$

Measurement and Data

1. Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit
2. Use four operations to solve word problems involving measurement
3. Represent and interpret data
4. Solve problems using information presented in line plots
5. Geometric measurement: understand concepts of angle and measure angles
6. Recognize and sketch angles
7. Measure angles in whole-number degrees using a protractor
8. Solve addition and subtraction problems to solve unknown angles

Geometry

1. Draw and identify lines and angles, and classify shapes by properties of their lines and angles
2. Identify and draw points, lines, line segments, rays, angles, and perpendicular and parallel lines in two-dimensional figures
3. Classify two-dimensional figures into categories based on properties
4. Recognize and draw lines of symmetry for two-dimensional figures

SOCIAL STUDIES

The fourth grade social studies program builds on the students' understanding of families, schools, and communities and highlights the political institutions and historic development of their local communities with connections to New York State and the United States. Students study the significant people, places, events, and issues that influenced life in their local communities. This chronological framework will help students to organize information about local history and connect it to United States history.

Geography

Understand the ways that people depend on and modify their physical environments and the geographic influences of industrialization and expansion

Government/Politics

Understand the foundations, structure, and purpose of government today and in colonial times; the need for informed citizenship; the importance of the Declaration of Independence, the Constitution, and the Bill of Rights

Culture/Society

Understand the development of the American culture – values, practices, and traditions; cultural similarities and differences that shaped communities in New York State; the lifestyles in the colonies, public education; immigration and migration; holidays, celebrations; national symbols

Economics

Understand the environmental and geographic factors that influenced Native American settlements; economic interdependence; labor movement and child labor; how to make a living in local regions of the State

History

Understand the important contributions of the Native American Indians; major explorers, European influence and immigration; effects of the Revolutionary War; definitions of slavery, transportation, inventions, communication, technology

Social Studies Practices

A. Gathering, Interpreting, and Using Evidence

1. Develop questions about New York State and its history, geography, economics and government.
2. Recognize, use, and analyze different forms of evidence used to make meaning in social studies (including sources such as art and photographs, artifacts, oral histories, maps, and graphs).
3. Identify and explain creation and/or authorship, purpose, and format for evidence; where appropriate, identify point of view.
4. Identify arguments of others.
5. Identify inferences.
6. Create an understanding of the past by using primary and secondary sources.

B. Chronological Reasoning and Causation

1. Explain how events are related chronologically to one another.
2. Employ mathematical skills to measure time in years and centuries. Understand the difference between B.C.E. and C.E. Identify the chronological significance of data presented in time lines, with teacher support.
3. Identify the relationship between multiple causes and multiple effects, using examples from his/her life or from a current event or history.
4. Distinguish between long-term and immediate causes and effects of a current event or an event in history.
5. Recognize dynamics of historical continuity and change over periods of time.
6. Use periods of time such, as decades and centuries to put events into chronological order.
7. Recognize and identify patterns of continuity and change in New York State.

C. Comparison and Contextualization

1. Identify a region in New York State by describing a characteristic that places within it have in common, and then compare it to other regions.
2. Identify multiple perspectives on an historical event.
3. Describe and compare New York State historical events.

4. Recognize the relationship between geography, economics, and history in social studies.
5. Describe historical developments in New York State with specific detail, including time and place.

D. Geographic Reasoning

1. Use location terms and geographic representations (maps and models) to describe where places are in relation to each other, to describe connections between places, and to evaluate the benefits of particular places for purposeful activities.
2. Distinguish human activities and human-made features from "environments" (natural events or physical features—land, air, and water — that are not directly made by humans).
3. Identify how environments affect human activities and how human activities affect physical environments.
4. Recognize relationships between patterns and processes.
5. Describe how human activities alter places and regions.

E. Economics and Economic Systems

1. Explain how scarcity necessitates decision making; compare the costs and benefits of economic decisions.
2. Distinguish between the various types of resources (human capital, physical capital, and natural resources) required to produce goods and services.
3. Explain the role of money in making exchange easier; examine the role of corporations and labor unions in an economy.
4. Explain why individuals and businesses specialize and trade.
5. Explain the meaning of unemployment.
6. Explain the ways the government pays for the goods and services it provides, including tax revenue.

F. Civic Participation

1. Demonstrate respect for the rights of others in discussions and classroom debates, regardless of whether one agrees with the other viewpoints.
2. Participate in activities that focus on a classroom, school, community, state, or national issue or problem.
3. Identify different types of political systems used at various times in New York State history and, where appropriate, United States history.
4. Identify opportunities for and the role of the individual in social and political participation in the school, local, and/or state community.
5. Show respect in issues involving differences and conflict; participate in negotiating and compromising in the resolution of differences and conflict.
6. Identify situations in which social actions are required and suggest solutions.
7. Identify people in positions of power and how they can influence people's rights and freedom.
8. Identify rights and responsibilities as a citizen of your community and state.

SCIENCE

Opportunities are provided for students to obtain a high-quality science education in Life Science, Physical Science, and Earth & Space Science through three-dimensional learning. Students will engage in science and engineering practices, acquire sufficient core content knowledge, and make connections of science across other disciplines.

Energy

1. Use evidence to construct an explanation relating the speed of an object to its energy
2. Make observations to provide evidence that energy is conserved as it is transferred and/or converted from one form to another
3. Ask questions and predict outcomes about the changes in energy that occur when objects collide
4. Apply scientific ideas to design, test, and refine a device that converts energy from one form to another
5. Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment

Waves: Waves and Information

1. Develop a model of waves to describe patterns in terms of amplitude and wavelength and that the waves can cause objects to move
2. Generate and compare multiple solutions that use patterns to transfer information (examples: Morse code, drums sending coded information through sound waves, using a grid of 1's and 0's representing black and white to send information about a picture)

Structure, Function, and Information Processing

1. Develop a model to describe that light reflecting from objects and entering the eye allows objects to be seen
2. Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction
3. Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways

Earth's Systems: Processes that Shape the Earth

1. Identify evidence from patterns in rock formations and fossils in rock layers to support an explanation for changes in landscape over time
2. Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation
3. Analyze and interpret data from maps to describe patterns of Earth's features

4. Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans

3-5 Engineering Design

1. Define a simple design problem reflecting a need or want that includes specified criteria for success and constraints on materials, time, or cost
2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem
3. Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved

TECHNOLOGY

Computer technology is integrated into the classroom and into the curriculum to support student learning, maximize individual achievement, and enhance teacher productivity. Students should be both comfortable with and adept to using computer technology, adjust to technology as it changes, and be able to use it as a tool to manipulate information and solve problems.

SPECIAL AREAS

Health/Physical Education

Personal Health and Fitness

1. Students will have the necessary knowledge and skills to establish and maintain physical fitness, participate in physical activity, and maintain personal health
2. Nutrition, digestive system, injury prevention and personal safety

A Safe and Healthy Environment

1. Students will acquire the knowledge and ability necessary to create and maintain a safe and healthy environment
2. Community health and safety, mental and emotional health, family life, substance abuse; environmental and consumer health, illness prevention

The Arts

Music (Creating, Performing, Responding, Connecting)

1. Students will perform basic notated melodies on the recorder

2. Students will describe, respond to, compare, analyze, and examine musical works
3. Students will sing and perform simple two-part songs
4. Students will compose and perform simple notated melodies

Visual/Media Arts (Creating, Presenting/Producing, Responding, Connecting)

1. Students will use mixed-media to compose two and three-dimensional artwork
2. Students will use proportion and balance accurately to create two and three dimensional art
3. Students will respond to art forms from other cultures and connect the artwork to classroom projects
4. Students will understand cultural forces that shape artistic communication

Library

Information Literacy

1. Students will access information efficiently and effectively
2. Use basic works cited format
3. Students will evaluate information critically and competently
4. Students will use information accurately and creatively

Independent Learning

1. Students will pursue information related to personal interests
2. Students will appreciate literature and other creative expressions of information
3. Students will strive for excellence in information seeking and generating knowledge