

YONKERS PUBLIC SCHOOLS

English Language Arts • Mathematics • Social Studies • Science Conceptual Understandings | Key Ideas | Required Skills

GRADE 4

Power Standards for Academic Success Committee

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The Power Standards for Academic Success- Blueprint for Leveraging Grade Level Standards for grades kindergarten through eight provide structures for teaching and learning in the Yonkers Public Schools for the 2020-2021 school year. This blueprint will evolve with ongoing data-driven review and input from District practitioners.



To Yonkers Public Schools Educators,

The Power Standards for Academic Success- Blueprint for Leveraging Grade Level Standards for grades kindergarten through eight provide structures for teaching and learning in the Yonkers Public Schools for the 2020-2021 school year. Our collective experience with Distance Learning and social isolation from March through June 2020 helps guide our work moving forward. Technology driven flexible instruction is the "new" normal for education moving forward.

As the school district reopens following this extended school closure, it is evident that school leaders and teachers will need to devote time during the school day to address Social Emotional Learning (SEL) as well as learning gaps. In the upcoming school year teachers and students must focus on the most critical skills, in tandem with the full curriculum, when engaging in teaching and learning to mitigate the potential long-term learning gap impact. Therefore, in collaboration with school leaders, teachers and content directors, the District developed the **Power Standards for Academic Success** that is a plan to access grade level standards emphasizing depth over breadth in English language arts, math, science and social studies.

The Next Generation Learning Standards, the New York State P-12 Science Learning Standards, the New York State K-12 Social Studies Framework, and other New York State Education Department Office of Curriculum and Instruction guidelines are still in place. The **Power Standards** are not to be used as the full curriculum; school leaders and teachers must continue to consult State learning standards in their instruction. The Power Standards are to be used in conjunction with data-informed teaching and learning to adjust pacing of instruction and scaffold using a Multi-Tiered System of Supports to bridge learning from the previous school year.

The **Power Standards for Academic Success** are structured by grade level and content area as follows:

- ❖ Conceptual Understanding, or broad concepts for the grade level, communicate the big picture,
 - > Key Ideas support that Conceptual Understanding,
 - Required Skills communicate what students should know and be able to do to succeed in the next grade level.

With a collective, focused and relentless commitment we can, we must, reverse the impact COVID-19 has wielded on our students achievement and wellbeing. The 2020-2021 school year offers magnificent opportunities for creative innovative teaching and learning. I look forward to working with you as we navigate this journey for our students.

Dr. Edwin M. Quezada, Superintendent of Schools



English Language Arts, Math, Science, and Social Studies

Grade 4

English Language Arts

Conceptual Understanding: Academic Oral and Written Language

Key Idea: Know and apply grade-level phonics and word analysis skills in decoding words

Required Skills: Phonics and Word Recognition

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

Key Idea: Demonstrate automaticity on grade level text

Required Skills: Fluency

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

Key Idea: Demonstrate vocabulary acquisition and usage

Required Skills: 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

Key Idea: Demonstrate vocabulary acquisition and usage

Required Skills: 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

Key Idea: Demonstrate command of the conventions of academic English grammar and usage when writing and speaking

Required Skills: Core Conventions Skills

- a. Explain the function of conjunctions, prepositions, and interjections in general as well as in particular sentences
- b. Use verb tense to convey various times, sequences, states, and conditions
- c. Recognize and correct inappropriate shifts in verb tense



English Language Arts, Math, Science, and Social Studies

Grade 4

English Language Arts

Required Skills Continued:

- d. Ensure subject-verb and pronoun-antecedent agreement
- e. Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons
- f. Correctly use frequently confused words (e.g., to, too, two; there, their)

Key Idea: Demonstrate command of the conventions of academic English, capitalization, punctuation, and spelling when writing

Required Skills: Core Punctuation and Spelling Skills

- a. Use commas and quotation marks in dialogue
- b. Use commas and quotation marks to show direct speech and quotations from a text
- c. Use a comma to separate an introductory element from the rest of the sentence
- d. Use conventional spelling for high-frequency and other studied words and to add suffixes to base words (e.g., sitting, smiled, cries, happiness)
- e. Use spelling patterns, rules, and generalizations (e.g., word families, position-based spellings, syllable patterns, ending rules, meaningful word parts) in writing words

Conceptual Understanding: Theme/Central Idea, Figurative Language, Summarizing and Claims Supported by Relevant Evidence Contribute to Analysis and Critical Thinking of the Text

Key Idea: Key ideas and details

Required Skills:

- a. Locate and refer to relevant details and evidence when explaining what a text says explicitly/implicitly and make logical inferences
- b. Determine a theme/central idea of the text and explain how it is supported by key details; summarize the text

Key Idea: Craft and structure

Required Skills:

- a. Determine the meaning of words, phrases, figurative language, academic, and content-specific words
- b. 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
- c. In informational texts, compare and contrast a primary and secondary source on the same event or topic



English Language Arts, Math, Science, and Social Studies

Grade 4

English Language Arts

Key Idea: Integration of knowledge and ideas

Required Skills:

- a. 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
- b. Explain how claims in a text are supported by relevant reasons and evidence

Conceptual Understanding: How to Write an Argumentative Piece to Support a Stated Claim

Key Idea: Writing

Required Skills: 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

Key Idea: Writing

Required Skills: Draw evidence from literary or informational texts to respond and support analysis, reflection, and research

a. Recall relevant information from experiences or gather relevant information from multiple sources while taking notes

Conceptual Understanding: How to Engage in Accountable Conversations

Key Idea: Speaking and listening

Required Skills:

- 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, make connections that contribute to the discussion, and link to the remarks of others
- d. Identify and evaluate reasons and evidence a speaker provides to support particular points



English Language Arts, Math, Science, and Social Studies

Grade 4 Math

Conceptual Understanding: Operations and Algebraic Thinking

Key Idea: Use the four operations with whole numbers to solve problems

Required Skills:

- a. Explain how one factor in a multiplication problem changes the other factor to make the product
- b. Write verbal statements about multiplicative comparisons as equations
- c. Solve word problems involving multiplication and division by using drawings
- d. Solve word problems involving multiplication and division by using equations and a symbol for an unknown
- e. Explain the difference between a multiplicative comparison and an additive comparison
- f. Solve multi-step word problems using addition, subtraction, multiplication and division with remainders
- g. Solve multi-step word problems using addition, subtraction, multiplication and division using equations where a symbol is used for the unknown
- h. Determine if the answer makes sense by using mental math, estimation, and rounding

Conceptual Understanding: Number and Operations in Base Ten

Key Idea: Generalize place value understanding for multi-digit whole numbers

Required Skills:

- a. Look at a multi-digit number and determine that the digit to the left is 10 times greater than a given digit
- b. Use place value to help multiply or divide numbers
- c. Read and write multi-digit whole numbers using base-ten numbers, number names, and expanded form
- d. Round whole numbers to the nearest 10, 100, 1000

Key Idea: Use place value understanding and properties of operations to perform multi-digit arithmetic

Required Skills:

- a. Easily and accurately add and subtract multidigit whole numbers
- b. Multiply a whole number up to four digits by a one-digit whole number
- c. Multiply a 2-digit number by a 2-digit number using strategies based on place value and/or operation properties
- d. Explain 2-digit by 2-digit multiplication by using equations, rectangular arrays, and/or area models
- e. Divide a single digit into numbers up to 9,999 in a variety of ways
- f. Show and explain division problems by using equations, rectangular arrays, and/or area models



English Language Arts, Math, Science, and Social Studies

Grade 4 Math

Conceptual Understanding: Number and Operations – Fractions

Key Idea: Extend understanding of fraction equivalence and ordering

Required Skills:

- a. Create and explain equivalent fractions using visual models
- b. Create and explain equivalent fractions even though the number and size of the parts of the fraction may change
- c. Compare two fractions by creating common numerators, common denominators, and benchmark fractions
- d. Explain why fraction comparisons are only valid when they refer to the same whole
- e. Correctly record the comparison of fractions using <, >, = and defend answers

Key Idea: Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers

Required Skills:

- a. Explain the concepts of adding and subtracting fractions with like denominators
- b. Decompose a fraction into a sum of fractions with the same denominator in more than one way
- c. Decompose a fraction into a sum of fractions with the same denominator and justify my answer using a visual fraction model
- d. Add mixed numbers with like denominators using a variety of strategies
- e. Subtract mixed numbers with like denominators using a variety of strategies
- f. Solve real-world problems involving addition and subtraction of fractions
- g. Explain how a fraction a/b is a multiple of 1/b
- h. Explain how multiplying a whole number times a fraction can be changed to a whole number times a unit fraction
- i. Solve word problems involving multiplication of a fraction by a whole number using visual fraction models and equations

Key Idea: Understand decimal notation for fractions, and compare decimal fractions

Required Skills:

- a. Write a fraction with denominators of 10 that is equal to fractions with denominators of 100
- b. Add two fractions with the denominators of 10 and 100
- c. Write a fraction with denominators of 10 or 100 as decimals
- d. Locate a decimal on a number line
- e. Compare two decimals using <, >, or = and defend answers
- f. Explain that comparisons between two decimals are only valid when they refer to the same whole



English Language Arts, Math, Science, and Social Studies

Grade 4 Science

Conceptual Understanding: Energy

Key Idea: Asking questions and defining problems

Required Skills: Ask questions and predict outcomes about the changes in energy that occur when objects collide

Key Idea: Planning and carrying out investigations

Required Skills: Make observations to provide evidence that energy is conserved as it is transferred and/or converted from one form to another

Key Idea: Constructing explanations and designing solutions

Required Skills:

- a. Use evidence to construct an explanation relating the speed of an object to the energy of that object
- b. Apply scientific ideas to design, test, and refine a device that converts energy from one form to another

Key Idea: Obtaining, evaluating, and communicating information

Required Skills: Describe that energy and fuels are derived from natural resources and their uses affect the environment

Conceptual Understanding: Waves and Information

Key Idea: Developing and using models

Required Skills: Develop a model of waves to describe patterns in terms of amplitude and wavelength and that waves can cause objects to move

Key Idea: Constructing explanations and designing solutions

Required Skills: Generate and compare multiple solutions that use patterns to transfer information

Conceptual Understanding: Processes that Shape the Earth

Key Idea: Constructing explanations and designing solutions

Required Skills: Identify evidence from patterns in rock formations and fossils in rock layers to support an explanation for changes in a landscape over time

Key Idea: Analyzing and interpreting data

Required Skills: Analyze and interpret data from maps to describe patterns of Earth's features



English Language Arts, Math, Science, and Social Studies

Grade 4 Science

Key Idea: Planning and carrying out investigations

Required Skills:

a. Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation

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

Conceptual Understanding: Structure and Properties of Matter

Key Idea: Developing and using models

Required Skills: Describe that matter is made of particles too small to be seen

Key Idea: Using mathematics and computational thinking

Required Skills: Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances the total amount of matter is conserved

Key Idea: Planning and carrying out investigations

Required Skills:

- a. Make observations and measurements to identify materials based on their properties
- b. Conduct an investigation to determine whether the mixing of two or more substances results in new substances



English Language Arts, Math, Science, and Social Studies

Grade 4 Social Studies

Conceptual Understanding: Change Over Time in the Local Community and New York State

Key Idea: Between 1865 and 1915, rapid industrial growth occurred in New York State. Over time, industries and manufacturing continued to grow. As manufacturing moved out of the state, service industries and high-tech industries have grown.

Required Skills:

- a. Trace manufacturing and industrial development in NYS and the local community in terms of what major products were produced, who produced them, and for whom they were produced from the 1800s to today
- b. Examine how the economic activities in the local community have changed over the last 50 years
- c. Investigate major economic activities in regions of NYS and create a map showing the major economic activities in Long Island, NYC, Lower Hudson Valley, Mid-Hudson Valley, Capital District, Adirondacks/North Country, Mohawk Valley/Central NY, Mid-West/Finger Lakes, Catskills, Southern Tier, and Western

Conceptual Understanding: Many People Immigrated and Migrated to NYS Contributing to Cultural Growth and Development

Key Idea: Immigrants came to NYS for a variety of reasons

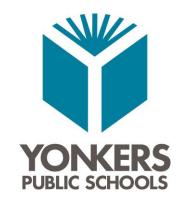
Required Skills:

- a. Trace the arrival of various immigrant groups to NYS in the mid-1800s, 1890s, 1920s, mid-1900s, 1990s and today; examine why they came and where they settled, noting the role of the Irish potato famine
- b. Explore the experiences and challenges of immigrants being processed at Ellis Island
- c. Investigate factory conditions experienced by immigrants; examine sweatshops, the Triangle Shirtwaist Fire, the use of child labor, and the formation of labor unions
- d. Investigate the requirements of becoming a US citizen
- e. Research an immigrant group in the local community or nearest city in terms of where that group settled; examine types of jobs they held and services were available to them (e.g., such as ethnic social clubs and fraternal support organizations)

Key Idea: Beginning in the 1890s, large numbers of African Americans migrated to New York City and other northern cities to work in factories

Required Skills:

- a. Investigate the reasons that African Americans moved into northern cities
- b. Investigate artists, writers, and musicians associated with the Harlem Renaissance



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2020-2021

