



## **YONKERS PUBLIC SCHOOLS**

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

**GRADE 8**



**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.

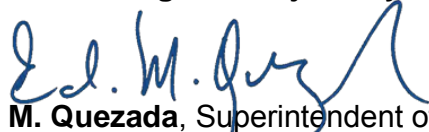
As the school district reopens following this extended school closure, it is evident that school leaders and teachers will need to devote time during the school day to address Social Emotional Learning (SEL) as well as learning gaps. In the upcoming school year teachers and students must focus on the 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

## **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.



## Blueprint for Leveraging Grade Level Standards English Language Arts, Math, Science, and Social Studies

Grade 8	English Language Arts
<b>Conceptual Understanding: Conventional Academic English in Oral and Written Language</b>	
<b>Key Idea:</b> Demonstrate vocabulary acquisition and usage	
<p><b>Required Skills:</b> Determine or clarify the meaning of unknown and multiple-meaning words and phrases, choosing flexibly from a range of strategies</p> <ol style="list-style-type: none"> <li>a. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., precede, recede, secede)</li> <li>b. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary)</li> </ol>	
<b>Key Idea:</b> Demonstrate vocabulary acquisition and usage	
<p><b>Required Skills:</b> Demonstrate understanding of figurative language, word relationships, and nuances in word meanings</p> <ol style="list-style-type: none"> <li>a. Interpret figures of speech including irony and puns in context</li> <li>b. Use the relationship between particular words to better understand each of the words</li> <li>c. Distinguish among the connotations of words with similar denotations (e.g., bullheaded, willful, firm, persistent, resolute)</li> </ol>	
<b>Conceptual Understanding: Theme/Central Idea, Citing Explicit/Implicit Textual Evidence and Comparing and Contrasting Print and Digital Media Contribute to Deeper Analysis and Comprehension of the Text</b>	
<b>Key Idea:</b> Key ideas and details	
<p><b>Required Skills:</b></p> <ol style="list-style-type: none"> <li>a. Cite textual evidence to strongly support an analysis of what the text says explicitly/implicitly and make logical inferences</li> <li>b. Determine one or more themes or central ideas of a text and analyze their development over the course of the text; summarize a text</li> <li>c. In literary texts, analyze how particular lines of dialogue or events propel the action, reveal aspects of a character, or provoke a decision</li> </ol>	
<b>Key Idea:</b> Craft and structure	
<p><b>Required Skills:</b></p> <ol style="list-style-type: none"> <li>a. In literary and informational texts, compare and contrast the structures of two or more texts in order to analyze how the differing structure of each text contributes to overall meaning, style, theme or central idea</li> <li>b. In literary texts, analyze how the differences between the point of view, perspectives of the characters, the audience, or reader create effects such as mood and tone</li> <li>c. In informational texts, analyze how the author addresses conflicting evidence or viewpoints</li> </ol>	

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## Blueprint for Leveraging Grade Level Standards English Language Arts, Math, Science, and Social Studies

Grade 8	English Language Arts
<b>Key Idea:</b> Integration of knowledge and ideas	
<b>Required Skills:</b>	
<ul style="list-style-type: none"> <li>a. Compare and contrast a written text with audio, filmed, staged, or digital versions in order to analyze the effects of techniques unique to each media and each format’s portrayal of a subject</li> <li>b. Trace and evaluate the development of an argument and specific claims in a text, assessing whether the reasoning is valid and the evidence is relevant and sufficient and recognizing when irrelevant evidence is introduced</li> <li>c. Choose and develop criteria in order to evaluate the quality of texts</li> <li>d. Make connections to other texts, ideas, cultural perspectives, eras, and personal experiences</li> </ul>	
<b>Conceptual Understanding: How to Write an Argumentative Piece to Support a Stated Claim, Distinguishing the Claims from Counterclaims, and an Informative Piece to Examine a Topic</b>	
<b>Key Idea:</b> Write arguments to support claims with clear reasons and relevant evidence	
<b>Required Skills:</b>	
<ul style="list-style-type: none"> <li>a. Support claims with clear reasons and relevant evidence, using credible sources while demonstrating an understanding of the topic or text</li> <li>b. Maintain a style and tone appropriate to the writing task</li> </ul>	
<b>Key Idea:</b> Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content	
<b>Required Skills:</b>	
<ul style="list-style-type: none"> <li>a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information using strategies such as definition, classification, comparison/contrast, and cause/effect</li> <li>b. Develop a topic with relevant facts, definitions, concrete details, quotations, or other information and examples; include formatting, graphics, and multimedia when useful to aid comprehension</li> </ul>	
<b>Key Idea:</b> Research	
<b>Required Skills:</b>	
<ul style="list-style-type: none"> <li>a. Draw evidence from literary or informational texts to support analysis, reflection, and research</li> <li>b. Gather relevant information from multiple sources</li> <li>c. Assess the credibility of each source</li> <li>d. Quote or paraphrase the data and conclusions of others</li> <li>e. Avoid plagiarism and follow a standard format for citation</li> </ul>	

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## Blueprint for Leveraging Grade Level Standards English Language Arts, Math, Science, and Social Studies

Grade 8	English Language Arts
<b>Conceptual Understanding: How to Engage in Accountable Conversations to Present Claims, Findings and Salient Points on a Focused Topic</b>	
<b>Key Idea:</b> Speaking and listening	
<p><b>Required Skills:</b> Engage effectively in a range of collaborative discussions with diverse partners by expressing ideas clearly and persuasively while building on those of others</p> <ol style="list-style-type: none"> <li>a. Come to discussions prepared, having read or researched material under study; draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion</li> <li>b. Follow norms for collegial discussions and decision making, track progress toward specific goals and deadlines, and define individual roles as needed</li> <li>c. Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas</li> <li>d. Acknowledge new information expressed by others and, when warranted, qualify or justify personal views in light of the evidence presented</li> </ol>	
<b>Key Idea:</b> Presentation	
<p><b>Required Skills:</b></p> <ol style="list-style-type: none"> <li>a. Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear enunciation</li> <li>b. Integrate digital media and/or visual displays in presentations to clarify information, strengthen claims and evidence, and add elements of interest to engage the audience</li> <li>c. Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate</li> </ol>	

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## Blueprint for Leveraging Grade Level Standards English Language Arts, Math, Science, and Social Studies

Grade 8	Math
<b>Conceptual Understanding: Expressions and Equations</b>	
<b>Key Idea:</b> Work with radicals and integer exponents	
<p><b>Required Skills:</b></p> <ol style="list-style-type: none"> <li>a. Simplify expressions with integer exponents</li> <li>b. Use proportional relationships to solve real-world problems</li> <li>c. Solve simple equations involving squares and cubes</li> <li>d. Evaluate the square roots of small perfect squares</li> <li>e. Evaluate the cube roots of small perfect cubes</li> <li>f. Identify irrational numbers</li> <li>g. Express very large and small numbers in scientific notation</li> <li>h. Determine the proportional difference between scientific numbers</li> <li>i. Add, subtract, multiply, and divide combinations of numbers in scientific notation</li> <li>j. Appropriately use scientific notation and units of measurement in real-world situations</li> <li>k. Explain scientific notation generated by technology</li> </ol>	
<b>Key Idea:</b> Connections between proportional relationships, lines, and linear equations	
<p><b>Required Skills:</b></p> <ol style="list-style-type: none"> <li>a. Explain proportional relationships with a graph</li> <li>b. Compare two proportional relationships when one is a graph and the other an equation</li> <li>c. Explain the constant slope of a line using points on the line and similar triangles</li> <li>d. Determine the equation of a line given on a coordinate graph</li> </ol>	
<b>Key Idea:</b> Analyze and solve linear equations and pairs of simultaneous linear equations	
<p><b>Required Skills:</b></p> <ol style="list-style-type: none"> <li>a. Classify linear equations that have one solution, infinite solutions, and no solutions</li> <li>b. Solve any linear equation with rational numbers</li> <li>c. Explain how a solution to a pair of simultaneous equations relates to the intersection of their graphs</li> <li>d. Solve a system of linear equations algebraically and graphically</li> <li>e. Determine solutions or special conditions to simple simultaneous linear equations mentally</li> <li>f. Solve real-world problems using simultaneous equations</li> </ol>	

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## Blueprint for Leveraging Grade Level Standards English Language Arts, Math, Science, and Social Studies

Grade 8	Math
<b>Conceptual Understanding: Functions</b>	
<b>Key Idea:</b> Define, evaluate, and compare functions	
<p><b>Required Skills:</b></p> <ol style="list-style-type: none"> <li>a. Define and explain what a function is and how it relates to input/output tables in earlier grades</li> <li>b. Explain how the graph of a function relates to inputs and outputs</li> <li>c. Name and explain the various properties of a function (i.e., slope, rate, degree, shape of graph, etc.)</li> <li>d. Compare the properties of two functions that are displayed in different ways (i.e., equation, graph, table, or words)</li> <li>e. Rewrite linear equations in the form of <math>y = mx + b</math></li> <li>f. Explain how the terms <math>m</math> and <math>b</math> in the equation <math>y = mx + b</math> relate to the graph</li> <li>g. Generate functions that are not linear and explain why they are not linear</li> </ol>	
<b>Key Idea:</b> Use functions to model relationships between quantities	
<p><b>Required Skills:</b></p> <ol style="list-style-type: none"> <li>a. Create an algebraic linear function when given a relationship between two quantities</li> <li>b. Determine the rate of change when given a linear relationship shown by a table or graph</li> <li>c. Determine the initial value when given a linear relationship shown by a table or graph</li> <li>d. Explain what the rate of change means when given a linear relationship in a real-world situation</li> <li>e. Explain what the initial value means when given a linear relationship in a real-world situation</li> <li>f. Describe where a graph is increasing, decreasing, constant, linear, and nonlinear</li> <li>g. Sketch a graph given a location and if it is increasing, decreasing, constant, linear, and nonlinear</li> </ol>	
<b>Conceptual Understanding: Geometry</b>	
<b>Key Idea:</b> Understand congruence and similarity using physical models, transparencies, or geometry software	
<p><b>Required Skills:</b></p> <ol style="list-style-type: none"> <li>a. Demonstrate and explain what happens to a line when it is rotated, reflected, and translated by various amounts</li> <li>b. Explain how two geometric figures are congruent when the first is rotated, reflected, or translated to obtain the second</li> <li>c. Specifically name the rotation, reflection, or translation of one geometric figure necessary to obtain the second congruent figure</li> <li>d. Explain the effect of a dilation, translation, rotation, and reflection on a figure on a coordinate plane using new coordinates to describe the result of the action</li> <li>e. Explain how two geometric figures are similar when the first is dilated, rotated, reflected, or translated to obtain the second</li> <li>f. Specifically name the dilation, rotation, reflection, or translation of one geometric figure necessary to obtain the second similar figure</li> </ol>	

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## Blueprint for Leveraging Grade Level Standards English Language Arts, Math, Science, and Social Studies

Grade 8	Math
<b>Conceptual Understanding: Geometry</b>	
<b>Key Idea:</b> Understand congruence and similarity using physical models, transparencies, or geometry software – Continued:	
<ul style="list-style-type: none"><li>g. Defend (verbal or written) an argument about the exterior angles of a triangle adding up to <math>360^\circ</math> and/or that the exterior and interior angles adding to <math>180^\circ</math></li><li>h. Defend (verbal or written) an argument about the interior angles of a triangle adding up to <math>180^\circ</math></li><li>i. Explain (verbal or written) the relationship between all the angles formed by parallel lines cut by a transversal</li><li>j. Explain (verbal or written) the relationship between all the angles of two similar triangles</li></ul>	
<b>Key Idea:</b> Understand and apply the Pythagorean Theorem	
<b>Required Skills:</b> <ul style="list-style-type: none"><li>a. Explain at least one method of proof of the Pythagorean Theorem</li><li>b. Explain a proof of the converse of the Pythagorean Theorem which says, if the square root of one side of a triangle is equal to the sum of the squares of the other two sides, then the triangle is a right triangle</li><li>c. Solve real-world problems using the Pythagorean Theorem on two-dimensional and three-dimensional figures</li><li>d. Find the distance between two points on a coordinate plane</li></ul>	

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## Blueprint for Leveraging Grade Level Standards English Language Arts, Math, Science, and Social Studies

Grade 8	Science
<b>Conceptual Understanding: Scientific and Engineering Practices</b>	
<b>Key Idea:</b> Scientists and engineers construct explanations and design solutions	
<b>Required Skills:</b>	
<ul style="list-style-type: none"> <li>a. Construct a scientific explanation based on valid and reliable evidence obtained from sources (including the students' own experiments) and the assumption that theories and laws that describe the natural world operate today as they did in the past and will continue to do so in the future</li> <li>b. Construct an explanation that includes qualitative or quantitative relationships between variables that describe phenomena</li> <li>c. Apply scientific ideas to construct an explanation for real-world-phenomena, examples, or events</li> </ul>	
<b>Key Idea:</b> Scientists and engineers develop evidence to support an argument	
<b>Required Skills:</b>	
<ul style="list-style-type: none"> <li>a. Students will develop oral and written arguments supported by empirical evidence and scientific reasoning to support or refute an explanation or a model for a phenomenon or a solution to a problem</li> <li>b. Students will be able to evaluate competing design solutions based on jointly developed and agreed upon design criteria</li> <li>c. Use mathematical representations to support scientific conclusions and design solutions</li> </ul>	
<b>Key Idea:</b> Scientists and engineers analyze and interpret data	
<b>Required Skills:</b>	
<ul style="list-style-type: none"> <li>a. Analyze and interpret data to provide evidence for phenomena</li> <li>b. Analyze and interpret data to find similarities and differences</li> </ul>	

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## Blueprint for Leveraging Grade Level Standards English Language Arts, Math, Science, and Social Studies

Grade 8	Social Studies
<b>Conceptual Understanding: Trace Major Events from Reconstruction to the Present and the Impact on the Nation</b>	
<b>Key Idea:</b> Racial tensions following the Civil War complicated the efforts to heal the nation and to redefine the status of African Americans	
<b>Required Skills:</b>	
<ul style="list-style-type: none"> <li>a. Examine the Reconstruction amendments in terms of rights and protections provided to African Americans</li> <li>b. Explore methods used by Southern state governments to affect the lives of African Americans, including Black Codes, poll taxes, Jim Crow laws</li> </ul>	
<b>Key Idea:</b> Various diplomatic, economic, and ideological factors contributed to the U.S. entering WWI. Involvement in the war significantly altered the lives of Americans.	
<b>Required Skills:</b>	
<ul style="list-style-type: none"> <li>a. Examine an overview of the causes and consequences of WWI, including war propaganda and the restrictions placed on Americans citizens</li> <li>b. Examine the effects of changing military technologies used during WWI</li> <li>c. Investigate the efforts of women suffragists and explain the historical significance of the 19<sup>th</sup> amendment</li> <li>d. Explore the changes in American culture after the war, including the Harlem Renaissance and other changes in NYC</li> </ul>	
<b>Key Idea:</b> Economic and environmental disasters in the 1930s created hardships for many Americans	
<b>Required Skills:</b>	
<ul style="list-style-type: none"> <li>a. Examine how the economic practices of the 1920s contributed to the coming of the Great Depression</li> <li>b. Examine the effects of the Great Depression on families in terms of the loss of jobs, wealth, and homes; noting the effects based on class, race and gender</li> <li>c. Explore the man-made and environmental conditions that led to the Dust Bowl, its economic and cultural consequences, and federal efforts to address the problem</li> </ul>	
<b>Key Idea:</b> After WWII, the population of the U.S. rose sharply as a result of both natural increases and immigration. Population movements impact the American landscape and shift political power.	
<b>Required Skills:</b>	
<ul style="list-style-type: none"> <li>a. Explore the political, economic and social impact of the baby boom generation</li> <li>b. Examine migration and immigration trends in NYS and NYC as the increase in Spanish-speaking, South Asian, East Asian, Middle Eastern, and African populations and the contributions of these groups</li> <li>c. Explore the effects of pollution, industrialization, and population growth on the environment</li> </ul>	

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## Blueprint for Leveraging Grade Level Standards English Language Arts, Math, Science, and Social Studies

<b>Grade 8</b>	<b>Social Studies</b>
<b>Key Idea:</b> The Civil Rights Movement and the Great Society were attempts to address major social, legal, economic, and environmental problems	
<b>Required Skills:</b> <ul style="list-style-type: none"><li>a. Compare and contrast the strategies of civil rights activists (e.g., Thurgood Marshall, Rosa Parks, MLK Jr., Malcolm X) and explain the significance of key civil rights victories (i.e., President Truman’s desegregation of the military, Brown v. BOE, Civil Rights Act of 1964, Voting Rights Act of 1965)</li><li>b. Examine struggles for equality and factors that enabled or limited success on behalf of women, farm workers, Native Americans, the disabled, and the LGBTQ community</li><li>c. Explain the difference between Medicare and Medicaid</li><li>d. Examine state and federal responses to gun violence, cyber-bullying, and electronic surveillance</li></ul>	

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2020-2021

