

2015 - 2016

# Curriculum In A Nutshell



*Excellence Without Exception*

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*What Your Child Will Learn In*

Grade  
**4**

Dear Families,

It is a pleasure to share our 2015-2016 *Curriculum in A Nutshell*, a brief overview of all areas of the Kindergarten through Grade 5 West Hartford Curriculum. This edition outlines the curriculum for your child's respective grade in school. Using basic skills and experiences as building blocks, the West Hartford Curriculum identifies what children learn at each grade level and represents a balanced and comprehensive program of all academic areas. Our curriculum is based on the Connecticut Core Standards and provides instruction on the essential skills and understandings necessary for success on both district and state assessments. The Connecticut Core Standards in literacy and math have been introduced in all grades K-5. The West Hartford curriculum also includes an integration of the visual and performing arts, physical education, world language (grades 3-5) and library media services.



This curriculum comes alive in the hands of our talented teachers who are committed to ensuring that our students reach their highest potential. We are dedicated to accommodating children's diverse needs, the way they learn, their experiences and interests, and to facilitating continuous educational growth. If you should have any questions about your child's curriculum, your classroom teacher is the best source of information.

No single document can fully explain the rich and complex nature of the school curriculum and instructional goals. We know that learning is optimized in a partnership with families, teachers, and schools. Working together, we can use your experiences as a family and our work in the classroom to create a respectful climate of academic success and joy for lifelong learning.

Sincerely,

Nancy M. DePalma, Ed.D.

Assistant Superintendent for Curriculum, Instruction and Assessment

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# Curriculum In A Nutshell

What Your Child Will Learn In

Grade  
**4**

## Social Studies

In Grade 4 this year, we have begun to integrate our social studies and Language Arts curriculum, aligned with the Connecticut Core Standards and the Connecticut Social Studies Curriculum Framework. Given this alignment of standards (e.g., understanding of primary and secondary sources), your child will engage in many literacy experiences related to social studies topics. For example, your child will read about and research Connecticut people and events and utilize primary and secondary sources to gather, present, and write about social studies-related information. The content knowledge your child learns through these reading and research experiences will be assessed as part of social studies. Language arts-related standards will be assessed through language arts indicators (e.g., "Integrates Knowledge and Ideas Within and Across Texts").

## Language Arts

This year your child will be working to develop his or her understanding and mastery of Grade 4 Connecticut Core Standards in English-Language Arts. These standards integrate all aspects of Language Arts development and are categorized under Reading, Writing, Speaking & Listening, and Language. Your child's teacher will use a wide variety of instructional strategies and formats to help your child learn these standards by the end of the school year.

### Reading

#### Apply Phonics and Word Recognition Skills

- Accurately read unfamiliar multisyllabic words using phonics and word recognition strategies.

#### Read with Fluency

- Read purposefully and accurately with appropriate rate and expression.
- Monitor reading for accuracy and comprehension, self-correcting as needed.

#### Identify Key Ideas and Details

- Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
- Summarize the text.
- Determine the main idea or theme of a text and how it is supported by key details.
- Describe in depth a character, setting, or event from a text drawing on specific details.
- Explain what happened and why when reading in the content areas.

#### Understand the Structure of Texts

- Determine the meaning of grade appropriate words and phrases in texts.
- Understand the structure of poems, drama, and prose and can explain the differences.
- Describe the overall structure of an informational text (e.g., time order, comparison, cause/effect, problem/solution).
- Compare and contrast varying points of view in stories including the differences between first and third person narration.
- Compare and contrast firsthand and secondhand accounts of the same event or topic.

#### Integrate Knowledge and Ideas Within and Across Texts

- Make connection between the text and a visual or oral presentation of the text.
- Interpret and explain charts, graphs, timelines, and interactive elements on a web page.
- Explain how an author uses reasons and evidence to support particular points in a text.
- Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.

#### Read and Comprehend a Range of Texts with Appropriate Grade Level Complexity

- Proficiently read and comprehend a variety of texts in the grade 4-5 text complexity range.

### Writing

#### Write a Variety of Texts for Various Purposes

- Write fully-developed and coherent opinion, explanatory and narrative pieces appropriate to task, purpose, and audience using effective techniques.

#### Produce and Publish Clear and Coherent Writing

- Develop and strengthen writing by planning, editing, and revising with guidance and support.
- Produce and publish writing utilizing technology, including the Internet.
- Demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting.

#### Research to Build and Present Knowledge

- Conduct short research projects that build knowledge through investigation of different aspects of a topic.
- Recall and gather relevant information from experiences and print and digital sources.
- Take notes, categorize information and provide a list of sources.
- Draw evidence from literary and informational texts to support analysis, reflection, and research.

#### Demonstrate a Range of Writing

- Write routinely for specific tasks, purpose, and audiences over both short or extended time frames.

### Speaking And Listening

#### Participate in Collaborative Conversations with Understanding

- Engage effectively in a range of collaborative discussions, building on other's ideas and expressing their own clearly.
- Come to discussions prepared and draw on that preparation to contribute to a discussion.
- Follow agreed upon rules for discussions and carry out assigned roles.
- Ask and answer questions to clarify and build upon remarks of others.
- Paraphrase portions of a text read aloud or presented visually or orally.
- Identify the reasons and evidence the speaker provides to support particular points.

#### Present Knowledge and Ideas Clearly

- Report on a topic or text in an organized manner using appropriate facts and relevant details.
- Add audio recording or visual display to presentations when appropriate to enhance the development of main ideas or themes.
- Differentiate between situations where formal English or informal discourse is appropriate.

## Language

#### Demonstrate Command of Conventions of Standard English

- Use appropriate grammar, capitalization, punctuation, and spelling when writing or speaking such as pronouns, adverbs, adjectives, prepositional phrases and progressive verb tenses.

#### Use Knowledge of Language

- Choose words and phrases to convey ideas precisely.
- Choose punctuation for effect.
- Differentiate between contexts that call for formal English and situations where informal discourse is appropriate (presenting ideas or small group discussion).

#### Understand and Use Grade Appropriate Vocabulary

- Use context clues to determine the meaning of unknown words or phrases.
- Use common grade appropriate Greek and Latin affixes and roots as clues to the meaning of a word.
- Consult digital and print reference materials to determine word pronunciation and meaning.
- Demonstrate understanding of figurative language.
- Explain similes and metaphors.
- Explain the meaning of idioms, adages, and proverbs.
- Demonstrate understanding of words by relating them to their synonyms and antonyms.
- Acquire and accurately use grade appropriate academic and content-specific words and phrases.

### Handwriting

- Review and practice Zaner-Bloser cursive alphabet.

#### Government and Civics

- Develop and understand decision-making, problem-solving, listening, speaking, personal and group interaction skills.
- Explain the importance of rules/laws and one's rights and responsibilities as a member of a school, community and state.
- Examine and cite evidence to understand and explain different points of view.
- Participate in informed, collaborative conversations about social studies topics and texts, expressing own ideas clearly and building on others' ideas.

#### Geography

- Recognize, compare and label continents and major bodies of water around the world.
- Use latitude and longitude to locate places.
- Use a map key to interpret information.

### World Language

#### Aiken, Braeburn, Bugbee, Charter Oak, Duffy, Morley, Smith, Webster Hill, Whiting Lane and Wolcott-Spanish; Norfeldt-French

- Learn to communicate in French or Spanish through oral expression.
- Learn the correct pronunciation of specific French or Spanish vocabulary.
- Develop listening comprehension skills in French or Spanish.
- Learn the nuances of verbal/nonverbal communication in French or Spanish.
- Develop cultural awareness and cultural knowledge.

A theme of everyday life is explored in areas referencing family, breakfast, lunch, dinner, school objects, subjects and schedules and body parts.

The cultural focus centers on the city of Paris and Central American countries.

#### History

- Explain the influences that contributed to European exploration and colonization.
- Identify and analyze the impact of individuals, groups and events on Connecticut history.
- Access, gather, and interpret information from a variety of primary and secondary sources including electronic media.
- Create various forms of written and visual work to demonstrate an understanding of history and social issues.
- Present information gathered on a topic with clarity, voice, and fluency and respond to questions.

#### Recognition of Religious Holidays

Rosh Hashanah, Yom Kippur (Jewish)

## Mathematics

Our mathematics curriculum is based on the Connecticut Core Standards for Mathematics (CCSS-M) that define what students should understand and be able to do by the end of the year at each grade level. The Connecticut Core Standards for Mathematics have two key components:

- (1) **Standards for Mathematical Practice** – eight practices in which students engage at all grade levels
- (2) **Standards for Mathematical Content** - conceptual understandings and procedural knowledge and skills

The Content Standards at each grade level are grouped into domains (e.g., Geometry) and clusters within each domain.

Our instructional focus in Grade 4 is on three critical areas: (1) developing understanding and fluency with multi-digit multiplication and developing understanding of division involving multi-digit dividends (2) developing an understanding of fraction equivalence, addition and subtraction with like denominators, and multiplication of fractions by whole numbers (3) understanding that geometric figures can be analyzed and classified based on their properties (e.g., parallel sides). To provide you with an understanding of your child's mathematics learning, we have highlighted domains and clusters of standards for Grade 4 below. A comprehensive description of the Connecticut Core Standards for Mathematics is available at <http://www.corestandards.org/>.

### Mathematical Practices

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

### Key Fluency

- Add/subtract within 1,000,000, using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

### Operations and Algebraic Thinking

- Use the four operations with whole numbers to solve problems.
- Gain familiarity with factors and multiples.
- Generate and analyze patterns.

### Number and Operations in Base Ten

- Generalize place value understanding for multi-digit whole numbers.

Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.

Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using  $>$ ,  $<$ ,  $=$  symbols to record comparisons.

Use place value to round multi-digit whole numbers to any place.

- Use place value understanding and properties of operations to perform multi-digit arithmetic.

Fluently add and subtract multi-digit whole numbers using the standard algorithm.

Multiply a whole number up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation using equations, rectangular arrays, and/or area models.

Find whole number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value and the properties of operations, and relationship between multiplication and division. Illustrate and explain the calculation using equations, rectangular arrays, and/or area models.

### Number and Operations - Fractions

- Extend understanding of fraction equivalence and ordering.
- Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.
- Understand decimal notation for fractions, and compare decimal fractions.

### Measurement and Data

- Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.
- Represent and interpret data.

Make a line plot to display a data set of measurements in fractions of a unit (e.g.,  $\frac{1}{2}$ ). Solve problems involving addition and subtraction of fractions by using information presented in line plots.

- Geometric measurement: understand concepts of angle and measure angles.

### Geometry

- Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

## Visual Arts

The Visual Arts Department promotes artistic development, fosters development of visual literacy, critical thinking skills, intellectual risk-taking and lifelong learning. The curriculum is grounded in the National Standards. The program strives to address the four components of Art Education in the following ways (suggested concepts to be addressed appear in *italics*):

### Art History/Culture

Understand visual art in history and culture through studying artists such as:

- Georges Seurat (*color theory/Pointillism*)
- Georgia O'Keeffe (*color theory/composition*)
- Optical Illusion Art (*positive/negative*)
- Kandinsky (*abstract, non-objective-optional*)
- Additional cultures, artists and art forms

### Art Production

Produce visual expressions; design and communicate through art techniques:

- Drawing: develop techniques resulting in greater attention to detail and drawing fluency.
- Painting: address two-dimensional challenges through transparent and opaque painting media.
- Three-Dimensional Forms: address challenges in three-dimensional art (balance, movement, space).
- Experience a variety of media and techniques (possibly print-making, collage and fiber art).

### Art Criticism

- Perceive and respond to the content, artist's intent and implied feelings or mood of various works of art.
- Apply and discuss the elements and principles of art and visual arts vocabulary.
- Continue to build visual literacy skills.

### Aesthetics

- Make informed opinions about visual art and is able to support basis for informed opinions.
- Use visual arts vocabulary to make judgments about works of art.



## Music

### Vocal Music

Singing is the foundation of all music skills in the elementary vocal music curriculum. Music skills are sequentially taught and divided into five content areas: melody, rhythm, reading and writing, part work and form, using grade appropriate songs, singing games and rounds.

### Instrumental Music

The instrumental music program provides intensive instruction to develop music skills and is a natural extension of the classroom music curriculum. Students in grades four and five have the opportunity to study a band or orchestra instrument. Small group lessons occur during the school day. Large ensembles rehearse weekly before school.

### Singing

- Sing songs independently; in tune, accurately, including partner songs and rounds.
- Sing expressively, with the appropriate dynamics, phrasing and interpretation.

### Instrumental Music

- Play songs independently; in tune, accurately, including partner songs and rounds.
- Play expressively, with the appropriate dynamics, phrasing and interpretation.

### Reading/Notating

- Read and write simple rhythmic and melodic patterns, e.g., syncopated rhythms; extended pentatonic scale.
- Identify symbols and traditional terms referring to dynamics, tempo and articulation.
- Identify simple form, e.g., D.C. and D.S.

### Listening/Evaluating

- Listen to and recognize simple form, styles and meter.
- Use terminology in describing and analyzing music, e.g., folk and work songs.
- Devise criteria to evaluate music performance, e.g., ensemble, intonation, balance.

### Understanding Culture/History

- Identify ways in which other disciplines are interrelated with music.
- Sing songs and play games that explore cultural diversity.
- Put music into a cultural and historical context.

## Science

### Life Science

#### Matter and Energy in the Earth's Systems

- Describe how all organisms depend on the living and non-living features of the environment for survival.
- Infer that when the environment changes, some organisms survive and reproduce, and others die or move to new locations.

### Physical Science

#### Energy Transfer and Transformations

- Infer that sound is a form of energy and describe how it is produced by the vibration of objects and is transmitted by the vibration of air and objects.
- Perceive that light is a form of energy that travels in a straight line and observe that light can be reflected by a mirror, refracted by a lens, or absorbed by objects.

### Earth Science/Science and Technology in Society

#### The Changing Earth

- Discover that Earth materials have different physical and chemical properties that may be identified through observation and testing.
- Recognize that the properties of Earth materials determine how they are used.
- Describe how water plays a major role in shaping the Earth's surface as it circulates through the Earth's crust, oceans and atmosphere.

### Scientific Inquiry

- Demonstrate a thoughtful and coordinated attempt to search out, describe, explain and predict natural phenomena.
- Participate in speaking, listening, presenting, interpreting, reading and writing about science.
- Understand that mathematics provides useful tools for the description, analysis and presentation of scientific data and ideas.



## Library Media Services

The library media program in the elementary school provides the foundation for information and technology literacy skills and supports reading for lifelong learning. By the end of grade 5 students will:

- Identify what they need to do and find out to complete a task or assignment.
- Use the research process to solve problems and make decisions.
- Select and narrow or broaden search terms.
- Brainstorm a list of the possible information sources.
- Evaluate the relevancy and reliability of information sources.
- Use the navigational features of sources (e.g., indexes, table of contents, menus, site maps) to locate information.
- Take notes in their own words after reading, viewing, or listening to information sources.
- Cite information sources using the appropriate format.
- Create a product using appropriate information and technology that communicates ideas to others.
- Evaluate the final product by identifying what went well and what to improve in the future.
- Engage in a variety of literature experiences to make connections with text and images (e.g., illustrations, photographs, charts, maps, diagrams).
- Use a variety of strategies to select "just right" books.
- Demonstrate responsible use of library materials.

## Physical Education

- Perform combinations of locomotor, non-locomotor, and manipulative skills, including an introduction to specific sport skills and sequences on the educational gymnastic apparatus.
- Apply movement concepts (e.g., space, force, acceleration) to a variety of activities and games.
- Perform rhythmic patterns involving creative or cultural dance movement.
- Develop a working understanding of the components as defined by the Connecticut Physical Fitness Assessment and ways to improve fitness.
- Participate in games and activities and solve tasks that require creative or critical thinking.
- Participate in cooperative adventure and group activities that require teamwork to achieve success.

## Keyboarding

Students in grades 3-5 build on the keyboarding exploration skills developed in primary grades:

- Grade 3—Learn the home row and standard fingering
- Grade 4—Use the home row and standard fingering
- Grade 5—improve accuracy and technique

Proper technique and posture are emphasized at all grade levels.

Students in grades 2-5 are assessed in the fall and spring using a brief on-line keyboarding test to determine words per minute and accuracy.

Grade	Speed and Accuracy
Grade 2 (spring baseline only)	5 wpm @ 90% accuracy
Grade 3	10 wpm @ 90% accuracy
Grade 4	15 wpm @ 90% accuracy
Grade 5	20 wpm @ 90% accuracy

Students who meet or exceed these benchmarks will not require formal instruction but will continue to refine their skills through technology-integrated units as well as writing and performance tasks. An intervention model approach will be used for students in Grades 3-5 who do not meet the benchmark at their grade level. The level of intervention will vary depending on student needs.

All students in Grades 3-5 will have access to a district-wide, web-based typing program available for keyboarding practice at home and school. You can obtain information regarding home access from your building curriculum specialist.

## Health

- Describe the harmful effects of using tobacco and other harmful substances.
- Practice refusal and decision-making skills.
- Determine the necessary procedures for basic first aid.
- Make healthy eating choices, particularly at lunch.
- Set goals to improve eating choices.
- Practice effective communication skills, including how to express concern and appreciation and ways to deal with criticism.
- Practice using problem-solving strategies in social situations, including the ability to see different points of views.
- Demonstrate calming-down techniques in a variety of situations, including times when they are angry or fearful.
- Identify ways to access help or support when needed from trusted adults, including if on the Internet.

West Hartford Community Relations police officers assist in teaching some of these objectives.

