



Stamford Public Schools Middle School Reference Guide

Grades 6, 7 and 8
2011-2012



Stamford Public Schools 2011-2012 Middle School Reference Guide

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Message from the Acting Superintendent



Two years ago, Stamford Public Schools began transforming the middle school program to make it more challenging, relevant, and responsive to student strengths and needs.

This year, as we complete the transformation process with grade 8, students at all grade levels will now have access to College Prep and Honors courses that are aligned with state and national standards, ensuring they acquire the knowledge and skills needed to succeed. The middle

school program consists of daily, hour-long blocks of mathematics, science, English language arts, and social studies. Daily academic enrichment periods offer students extended learning or academic support. Finally, weekly advisories provide students with personalized guidance and skill-building around important developmental themes.

“We are proud of our rigorous, enriching curriculum and believe it provides the necessary preparation for higher education and success in the 21st century.”

This past year, we continued to refine the middle school program, thanks to input from parents, teachers, administrators, and community members who serve on the Middle School Advisory Council. As a result of that feedback, qualified students in grades 7 and 8 will have the opportunity to take advanced math courses and to earn high school credit.

We are proud of our rigorous, enriching curriculum and believe it provides the necessary preparation for higher education and success in the 21st century. Your child’s engagement, along with your support, will make the middle school years rewarding for your entire family. We are honored to be your partner during such an important time in your child’s life.

Sincerely,

A handwritten signature in black ink that reads "Winnie Hamilton". The signature is fluid and cursive, with the first name being more prominent.

Dr. Winnie Hamilton
Acting Superintendent
Stamford Public Schools

Mathematics Curriculum

INTRODUCTION

According to the Common Core State Standards, the National Council of Teachers of Mathematics, and data from international assessments, students need to become problem-solvers, learn to reason and communicate mathematically, value mathematics, and become confident in their ability to do mathematics in order to be prepared for higher education and the global workforce. The Stamford Public Schools middle school mathematics curriculum provides students the opportunity to do this by developing their skills and helping them make meaning of the mathematics they learn. Students learn more than just mathematical procedures; they learn the “why” and “how” of mathematics.

Textbook, Grades 6 and 7 Mathematics

Connected Mathematics 2

Fey, J., Fitzgerald, W., Friel, S., Lappan, G., Phillips, E.
Published by Pearson Prentice Hall., Boston, MA (2006)

Textbook, Grade 8 CP and Algebra 1 Mathematics

Connected Mathematics 2

Fey, J., Fitzgerald, W., Friel, S., Lappan, G., Phillips, E.
Published by Pearson Prentice Hall., Boston, MA (2006)

Algebra 1

Larson, R., et al.
Published by McDougal Littell., Boston, MA (2007)

GRADE 6 MATHEMATICS CURRICULUM

CP AND HONORS CLASSES COVER:	HONORS CLASSES ALSO INCLUDE:
<ul style="list-style-type: none">• Factors and Multiples• Understanding Fractions, Decimals, and Percents• Two-Dimensional Geometry• Understanding Fraction Operations• Two-Dimensional Measurement• Computing With Decimals and Percents• Probability• Data Analysis• Measurement	<ul style="list-style-type: none">• Different pacing of units• Classroom time dedicated to connection and extension of concepts• More activities that focus on extension of concepts• An expectation of work to be completed independently rather than with the whole class

GRADE 7 MATHEMATICS CURRICULUM

CP AND HONORS CLASSES COVER:	HONORS CLASSES ALSO INCLUDE:
<ul style="list-style-type: none"> • Introducing Algebra • Positive and Negative Numbers • Similarity • Data Analysis • Ratio, Proportion, and Percent • Geometry • Measurement • Probability 	<ul style="list-style-type: none"> • Different pacing of units • Classroom time dedicated to connection and extension of concepts • More activities that focus on extension of concepts • An expectation of work to be completed independently rather than with the whole class

GRADE 8 MATHEMATICS CURRICULUM

CP CLASSES COVER:	ALGEBRA 1 CLASSES COVER:
<ul style="list-style-type: none"> • Data and Statistics • Linear Relationships • Pythagorean Theorem • Linear and Inverse Variations • Exponential Relationship • Symbolic Expression and the Distributive Property 	<ul style="list-style-type: none"> • Solving Equations and Formulas • Solving and Graphing Inequalities using one variable • Properties of Exponents and Scientific Notation • Radicals/Pythagorean Theorem • Graphing Lines • Slope and Rate of Change • Writing Equations • Linear Regression • Piecewise Functions • System of Equations • Linear Programming

Some students may qualify to be enrolled in Algebra I for high school credit. This course is identical to the Algebra I course taught at the high school. See page 24 for details.

SPS Middle School Mathematics Academic Enrichment

GRADE 6

WHILE THE GRADE 6 CP/ HONORS MATHEMATICS CLASS IS WORKING ON:	AE SUPPORT CLASSES WILL USE THE FOLLOWING RESOURCES:	AE EXTENSION CLASSES WILL USE THE FOLLOWING RESOURCES:
<ul style="list-style-type: none"> • Factors and Multiples • Understanding Rational Numbers • Two-Dimensional Geometry • Understanding Fraction Operations • Two-Dimensional Measurement • Computing with Decimals/Percents • Statistics • Probability 	<ul style="list-style-type: none"> • Intervention Program • Balanced Assessments http://balancedassessment.concord.org/ • <i>Figure This!</i> website www.figurethis.org • Connecticut State Dept of Education, <i>CSDE 6-8 Publications</i> http://www.sde.ct.gov/sde/cwp/view.asp?a=2618&Q=322136 • Grade 6 activities from <i>Goals 2000</i> http://www.sde.ct.gov/sde/cwp/view.asp?a=2618&q=321088 • <i>Additional Practice and Skills</i> workbook • <i>Special Needs Handbook</i> • <i>Online Skills Practice</i> www.phschool.com/cmp2 • <i>Assessment Resources</i> for 6th grade (problems not used in the district-wide common assessments or used by core mathematics teachers) • Use of <i>Exam View</i> to create additional practice problems • <i>Test-Taking Strategies and Test Prep Workbook</i> for Grade 6 • Online games and quizzes www.phschool.com/cmp2 • CMP Common Core Investigations not covered in the Core math class • <i>America's Choice Navigator</i> for selected concepts 	<ul style="list-style-type: none"> • Science Technology Engineering and Mathematics Activities: http://spacemath.gsfc.nasa.gov • <i>Math Olympiad</i> http://www.moems.org/ • <i>Math Counts</i> https://mathcounts.org/Page.aspx?pid=239 • Balanced Assessments http://balancedassessment.concord.org/ • <i>Figure This!</i> website www.figurethis.org • Connecticut State Dept of Education, <i>CSDE 6 - 8 Publications</i> http://www.sde.ct.gov/sde/cwp/view.asp?a=2618&Q=322136 • Grade 6 activities from <i>Goals 2000</i> http://www.sde.ct.gov/sde/cwp/view.asp?a=2618&q=321088 • Online games and quizzes www.phschool.com/cmp2 • Logic Puzzles http://www.menneske.no/hasi/eng/ • CMP Common Core Investigations not covered in the Core math class

GRADE 7

WHILE THE GRADE 7 CP MATHEMATICS CLASS IS WORKING ON:	AE SUPPORT CLASSES WILL USE THE FOLLOWING RESOURCES:
<ul style="list-style-type: none"> • Introduction to Algebra • Integers and Rational Numbers • Understanding Similarity • Ratio, Proportion, and Percent • Three-Dimensional Measurement • Probability 	<ul style="list-style-type: none"> • Intervention Program • Online <i>Skills Practice</i> www.phschool.com/cmp2 • Online games and quizzes www.phschool.com/cmp2 • <i>Additional Practice</i> and <i>Skills</i> workbook • Special Needs Handbook • <i>Assessment Resources</i> for Grade 7 (problems not used in the district-wide common assessments or used by core mathematics teachers) • Use of <i>Exam View</i> to create additional practice worksheets • <i>Test-Taking Strategies with Transparencies</i> resource (Course 2, p. 13 - 24) • <i>Figure This!</i> website www.figurethis.org • Connecticut State Dept of Education, <i>CSDE 6-8 Publications</i> http://www.sde.ct.gov/sde/cwp/view.asp?a=2618&Q=322136 • Grade 7 activities from <i>Goals 2000</i> http://www.sde.ct.gov/sde/cwp/view.asp?a=2618&q=321088 • Mathematics Teaching in the MS magazine • <i>CMP Common Core Investigations</i> not covered in the Core math class • <i>America's Choice Navigator</i> for selected concepts

Grade 7 Academic Enrichment Extension consists of a World Language or the *Advancement Via Individual Determination (AVID)* college readiness program.

GRADE 8

WHILE THE GRADE 8 CP MATHEMATICS CLASS IS WORKING ON:	AE SUPPORT CLASSES WILL USE THE FOLLOWING RESOURCES:
<ul style="list-style-type: none"> • Data and Statistics • Linear Relationships • Pythagorean Theorem • Linear and Inverse Variations • Exponential Relationship • Symbolic Expression and the Distributive Property 	<ul style="list-style-type: none"> • Intervention Program • Online <i>Skills Practice</i> www.phschool.com/cmp2 • Online games and quizzes www.phschool.com/cmp2 • <i>Additional Practice</i> and <i>Skills</i> workbook • <i>Special Needs</i> Handbook • <i>Assessment Resources</i> for Grade 8 (problems not used in the district-wide common assessments or used by core mathematics teachers) • Use of <i>Exam View</i> to create additional practice worksheets • <i>Test-Taking Strategies with Transparencies</i> resource (Course 2, p. 13 - 24) • <i>Figure This!</i> website www.figurethis.org • Connecticut State Dept of Education, <i>CSDE 6 - 8 Publications</i> http://www.sde.ct.gov/sde/cwp/view.asp?a=2618&Q=322136 • Grade 8 activities from <i>Goals 2000</i> http://www.sde.ct.gov/sde/cwp/view.asp?a=2618&q=321088 • <i>CMP Common Core Investigations</i> not covered in the Core math class • <i>America's Choice Navigator</i> for selected concepts

Grade 8 Academic Enrichment Extension consists of a World Language or the *Advancement Via Individual Determination (AVID)* college readiness program.

English Language Arts Curriculum

INTRODUCTION

The English Language Arts (ELA) curriculum is a standards-based curriculum for all students. The curriculum is designed to increase the amount of reading and writing done in the ELA classroom. The curriculum consists of the teaching of core texts using strategies that engage students in reading, writing, thinking and communicating. Motivation for students to read even more is provided through the structure of Middle School Literacy Book Clubs. The Book Club model offers a choice of interesting texts at various levels of challenge while still extending students' literacy skills and providing rigor. The writing in the ELA classroom includes both formal writing such as expository and argument writing and informal writing such as personal responses. The formal writing takes place during Writer's Workshop whereas the informal writing occurs daily inside the classroom during Reader's Workshop and as homework. The purpose of the informal writing is to deepen students' understanding of the text and genre.

GRADE 6, 7 & 8 ENGLISH LANGUAGE ARTS CURRICULUM

CP AND HONORS CLASSES COVER:	HONORS CLASSES ALSO INCLUDE:
<p>Reading Requirements: Students read widely in literary texts. A minimum of eight books will be read: four core texts and four book club texts from the grade level book list. Additionally, students read supplemental texts that provide background knowledge or present differing perspectives about the ideas that the core text offers or the questions it addresses.</p> <p>Writing Requirements: Students write in various genres. A minimum of four formal pieces of writing is required in addition to informal writing in various genres and timed common writing assessments.</p>	<p>The level of sophistication and complexity of the discussions, strategies, assignments, and writing increase in an honors level class:</p> <ul style="list-style-type: none"> • Faster pacing • More independent practice of strategies/concepts • More classroom time for extension activities • More time outside the classroom for strategies practice

English Language Arts Academic Enrichment (AE)

INTRODUCTION

The Academic Enrichment Extension (AE) and Academic Enrichment Support (AS) course provides students time **beyond** the regular language arts class period of literacy instruction.

GRADE 6, 7 & 8 ACADEMIC ENRICHMENT

While the core English Language Arts class is working on the curriculum...

GRADE 6, 7, AND 8 ACADEMIC ENRICHMENT SUPPORT CLASSES WILL USE THE FOLLOWING RESOURCES...	GRADE 6 ACADEMIC ENRICHMENT EXTENSION CLASSES WILL USE THE FOLLOWING RESOURCES...
<p>AE Support is structured to accelerate students using the following:</p> <ul style="list-style-type: none">• A scientific research-based intensive reading program for students. This program confronts the problem of low reading achievement on multiple fronts (reading passages with a quick check after reading, systematic instruction in decoding and word recognition, the practice of spelling vocabulary and receiving immediate corrective feedback) using adaptive technology and high interest print.• A program that provides direct reading and foundational literacy skills instruction while reading high interest print materials in order to practice and strengthen their reading, writing, and spelling skills.	<p>AE Enrichment is structured to advance students using the following:</p> <ul style="list-style-type: none">• Shared Inquiry Discussion. Shared Inquiry is a method of learning in which students search for answers to questions raised by a text. The search involves taking what the author writes and trying to grasp its full meaning, to interpret or reach an understanding of the text.

Science Curriculum

INTRODUCTION

The new science program provides all students with rich, rigorous, engaging and relevant student-centered experiences. The science program takes an integrated modular approach, with units of instruction on physical science, Earth science, and life science in every grade. This is a shift from previous years when only one content area (physical, Earth or life science) was taught in each grade. Differentiated instruction is built into every unit so that all students' learning needs are addressed. A key feature of the program is an emphasis on an issue-oriented approach. Each unit begins by presenting a real-world problem or challenge designed to engage and motivate students. As the unit continues, students will experience activities that broaden their knowledge of concepts and ask them to collect evidence that relates to the initial problem or challenge. By the end of the unit, students will have many opportunities to improve their inquiry skills by engaging in scientific questions, weighing evidence and making informed decisions about the problem or challenge. This inquiry-based approach simultaneously nurtures students' curiosity about the world around them and fosters rigorous scientific habits of mind.

Textbooks, Grade 6 Science

Issues and Physical Science

Lawrence Hall of Science, University of California at Berkeley
Published by Lab-Aids[®], Inc., Ronkonkoma, NY SEPUP. (2007)

Issues and Earth Science: Weather and Atmosphere

Lawrence Hall of Science, University of California at Berkeley
Published by Lab-Aids[®], Inc., Ronkonkoma, NY SEPUP. (2006)

Issues and Physical Science: Ecology

Lawrence Hall of Science, University of California at Berkeley
Published by Lab-Aids[®], Inc., Ronkonkoma, NY SEPUP. (2008)

Online textbooks are accessible for all students through the following link:
<http://www.lab-aids.com/ebooks/ebooks.php> (User names and passwords are provided by classroom teachers.)

GRADE 6 SCIENCE CURRICULUM

CP AND HONORS CLASSES COVER:	HONORS CLASSES ALSO INCLUDE:
<p>General Information</p> <ul style="list-style-type: none"> • Students participate in required activities with time allocated for support/scaffolding of science, mathematics, reading writing, speaking and listening skills • Students progress from guided inquiry to open inquiry in every unit • Analysis questions and “Thinking it Over” questions are done in class 	<ul style="list-style-type: none"> • Students spend fewer days on required activities leaving more time for activities that delve deeper into the same topics • Students progress from guided inquiry to open inquiry more quickly • Analysis questions and “Thinking it Over” questions are assigned as independent work and homework
<p>Studying Materials Scientifically – Ten required activities on:</p> <ul style="list-style-type: none"> • Laboratory safety • Physical and chemical properties of substances • Identifying unknown substances 	<p>One extension activity on:</p> <ul style="list-style-type: none"> • Hazardous materials found in the home
<p>The Chemistry of Materials – Eleven required activities on:</p> <ul style="list-style-type: none"> • Physical and chemical properties of substances • Elements, compounds and molecules • Periodic table of elements • Chemical reactions and conservation of mass • Waste disposal and reclamation • Environmental impacts of computers 	<p>Four extension activities on:</p> <ul style="list-style-type: none"> • Plastics and other polymers
<p>Water – Nineteen required activities on:</p> <ul style="list-style-type: none"> • Water quality and town planning decisions • Mixtures, solutions and precipitates • Solubility and concentration • Particle theory of matter • Acids and bases 	<p>Three extension activities on:</p> <ul style="list-style-type: none"> • Water quality and epidemiology

GRADE 6 SCIENCE CURRICULUM (Continued)

CP AND HONORS CLASSES COVER:	
<p>Weather and Atmosphere – Fifteen required activities on:</p> <ul style="list-style-type: none"> • Water cycle • Heating Earth's surfaces • Atmosphere: structure and properties • Influences on climate • Global and local weather patterns 	<p>Five extension activities on:</p> <ul style="list-style-type: none"> • Weather history • Water as a solvent • Wind and forecasting
<p>Ecology – Sixteen required activities on:</p> <ul style="list-style-type: none"> • Introduced species • Animal behavior and classification • Ecosystems: producers, consumers, and decomposers • Population dynamics • Food webs and energy levels • Habitats and carrying capacity 	
<p>Bridges – Required activity on:</p> <ul style="list-style-type: none"> • Building bridges and analyzing design factors: physical forces, function, materials, safety, cost and appearance. 	

Textbooks, Grade 7 Science

Issues and Life Science

Lawrence Hall of Science, University of California at Berkeley
Published by Lab-Aids®, Inc., Ronkonkoma, NY SEPUP. (2008)

Issues and Earth Science: Plate Tectonics

Lawrence Hall of Science, University of California at Berkeley
Published by Lab-Aids®, Inc., Ronkonkoma, NY SEPUP. (2006)

Issues and Earth Science: Erosion and Deposition

Lawrence Hall of Science, University of California at Berkeley
Published by Lab-Aids®, Inc., Ronkonkoma, NY SEPUP. (2006)

Online textbooks are accessible for all students through the following link: <http://www.lab-aids.com/ebooks/ebooks.php> (User names and passwords are provided by classroom teachers.)

GRADE 7 SCIENCE CURRICULUM

CP AND HONORS CLASSES COVER:	HONORS CLASSES ALSO INCLUDE:
<p>General Information</p> <ul style="list-style-type: none"> • Students participate in required activities with time allocated for support/scaffolding of Science, Mathematics, Reading Writing, speaking and listening skills • Students progress from guided inquiry to open inquiry in every unit • Analysis questions and “Thinking it Over” questions are done in class 	<ul style="list-style-type: none"> • Students spend fewer days on required activities leaving more time for activities that delve deeper into the same topics • Students progress from guided inquiry to open inquiry more quickly • Analysis questions and “Thinking it Over” questions are assigned as independent work and homework
<p>Studying People Scientifically – Eight required activities on:</p> <ul style="list-style-type: none"> • Experimental design • History of disease investigation • Testing medicines scientifically • Human nervous system • Qualitative and quantitative data analysis 	<p>Two extension activities on:</p> <ul style="list-style-type: none"> • Using placebos in clinical trials, and therapeutic and side-effects of medications
<p>Body Works – Fifteen required activities on:</p> <ul style="list-style-type: none"> • Alcohol’s effects on the human body • Identification of human organs and organ systems • Structure and function of the following human organ systems: digestive, skeletal-muscular, respiratory, circulatory • Heart rate and physical fitness • Risk factors and causes of circulatory system diseases 	<p>Four extension activities on:</p> <ul style="list-style-type: none"> • Heart rate and physical fitness • Risk factors and causes of circulatory system diseases • Four extension activities on wise use of public health funding, heart surgery, listening for abnormal heart sounds, effects of high blood pressure on the circulatory system

GRADE 7 SCIENCE CURRICULUM (Continued)

CP AND HONORS CLASSES COVER:	HONORS CLASSES ALSO INCLUDE:
State Embedded Task: Feel the Beat	
<p>Cell Biology and Disease – Eighteen required activities on:</p> <ul style="list-style-type: none"> • Disease prevention, transmission and treatment • Examining microscopic organisms • Germ theory • Comparing the structure and function of protists; yeast, bacterial, plant, human and other animals • Viruses 	<p>Six extension activities on:</p> <ul style="list-style-type: none"> • The history of an infectious disease • Why cells are small • Blood cells • Antibacterial agents • Antibiotic resistance
<p>Genetics – Fourteen required activities on:</p> <ul style="list-style-type: none"> • Variation in human traits • Growing plants to predict the passing of traits • Genetic diseases • Sexual and asexual reproduction • Inheritance of traits/Mendelian genetics • Punnett squares • Role of chromosomes and DNA during sexual reproduction 	<p>Four extension activities on:</p> <ul style="list-style-type: none"> • Examining the effect of environment on seedling color • Analyzing patterns of inheritance using Punnett squares and pedigrees • Discussing the trade-offs of genetic testing • Simulating DNA fingerprinting
<p>Erosion and Deposition – Ten required activities on:</p> <ul style="list-style-type: none"> • Weathering, erosion and deposition • Land use planning • Human impacts on the land 	<p>Two extension activities on:</p> <ul style="list-style-type: none"> • Erosion resistance • Cliff erosion
<p>Plate Tectonics – Ten required activities on:</p> <ul style="list-style-type: none"> • Earth's internal layers • Geologic time • Plate Tectonics • Site risks for nuclear waste storage 	<p>Four extension activities on:</p> <ul style="list-style-type: none"> • Volcanic landforms • Piecing together continents • Earthquake measurement • Convection currents
<p>Food Safety – Eight required activities on:</p> <ul style="list-style-type: none"> • Food-borne illnesses and their prevention • Food preservation and food additives • Growth and inhibition of microorganisms 	

Textbooks, Grade 8 Science

Issues and Earth Science

Lawrence Hall of Science, University of California at Berkeley
Published by Lab-Aids®, Inc., Ronkonkoma, NY SEPUP. (2006)

Issues and Life Science: Bioengineering

Lawrence Hall of Science, University of California at Berkeley
Published by Lab-Aids®, Inc., Ronkonkoma, NY SEPUP. (2008)

Issues and Life Science: Evolution

Lawrence Hall of Science, University of California at Berkeley
Published by Lab-Aids®, Inc., Ronkonkoma, NY SEPUP. (2008)

Issues and Physical Science: Energy

Lawrence Hall of Science, University of California at Berkeley
Published by Lab-Aids®, Inc., Ronkonkoma, NY SEPUP. (2007)

Issues and Physical Science: Force

Lawrence Hall of Science, University of California at Berkeley
Published by Lab-Aids®, Inc., Ronkonkoma, NY SEPUP. (2007)

Online textbooks are accessible for all students through the following link: <http://www.lab-aids.com/ebooks/ebooks.php> (User names and passwords are provided by classroom teachers.)

GRADE 8 SCIENCE CURRICULUM

CP AND HONORS CLASSES COVER:	HONORS CLASSES ALSO INCLUDE:
<p>General Information</p> <ul style="list-style-type: none"> Students participate in required activities with time allocated for support/scaffolding of Science, Mathematics, Reading Writing, Speaking and Listening skills Students progress from guided inquiry to open inquiry in every unit Analysis questions and “Thinking it Over” questions are done in class 	<ul style="list-style-type: none"> Students spend fewer days on required activities leaving more time for activities that delve deeper into the same topics Students progress from guided inquiry to open inquiry more quickly Analysis questions and “Thinking it Over” questions are assigned as independent work and homework
<p>Studying Soil Scientifically – Ten required activities on:</p> <ul style="list-style-type: none"> Scientific process skills: observation and classification Soil composition and identification Soil as a growing medium for plants 	<p>One extension activity on:</p> <ul style="list-style-type: none"> Mapping soil
<p>Force and Motion – Fifteen required activities on:</p> <ul style="list-style-type: none"> Vehicular safety and braking distance in light of forces and motion Measuring movement over distance and time to calculate speed Interpreting motion graphs Net force, mass and acceleration Center of mass Analyzing accident data 	<p>Two extension activities on:</p> <ul style="list-style-type: none"> Circular movement and inertia Newton’s Laws and friction

GRADE 8 SCIENCE CURRICULUM (Continued)

CP AND HONORS CLASSES COVER:	HONORS CLASSES ALSO INCLUDE:
State Embedded Task: Dig In!	
<ul style="list-style-type: none"> • Energy – Sixteen required activities on: • Energy use and energy efficiency in the home • Transfer and transformation of energy • Types of energy: kinetic, potential, mechanical, heat • Conservation of energy • Heat transfer • Electrical circuits • Electricity generation • Solar energy and photovoltaic cells 	<ul style="list-style-type: none"> • Four extension activities on: • Heat transfer • Electrical circuits
State Embedded Task: Shipping and Sliding	
<p>The Earth in Space – Twelve required activities on:</p> <ul style="list-style-type: none"> • Observing shadows to estimate elapsed time • Relationship between day length, the position of the Sun, and the seasons • Rotation and revolution of the Earth and other space objects • Simulating phases of the Moon 	<ul style="list-style-type: none"> • Two extension activities on: • Tides and lunar vs. solar calendar • Lunar vs. solar calendar
<p>Exploring the Solar System – Eleven required activities on:</p> <ul style="list-style-type: none"> • History of space exploration • Observing and classifying space objects • Making a scale drawing of the solar system • Characteristics of our Sun • Effect of gravity on the motion of objects • Space missions 	<ul style="list-style-type: none"> • Three extension activities on: • Development of modern telescopes • Planetary characteristics • Remote sensing
<p>Bioengineering – Six required activities on:</p> <ul style="list-style-type: none"> • Invention • Designing heart valves and mechanical limbs • Designing adaptive tools • Designing the most nutritious energy bar • Pioneers in bioengineering 	<ul style="list-style-type: none"> • Two extension activities on: • Designing artificial bones • Form and function of bones
<p>Evolution – Ten required activities on:</p> <ul style="list-style-type: none"> • Extinction, fossils • Geologic time • Theories of evolution • Simulating natural selection • Mutation and genetic variability • Anatomical and DNA evidence for evolution • Relationship between extinction and evolution 	<ul style="list-style-type: none"> • Three extension activities on: • Interpreting fossilized footprints • Modeling natural selection process • Graphing changes in the number of fossil families over geologic time

Social Studies Curriculum

INTRODUCTION

The social studies curriculum provides the opportunity for responsible student engagement with real problems in the school, community, and the world around them. According to the Connecticut Social Studies Curriculum Framework and the National Council of Teachers of Social Studies, students must explore and master content. They must also improve their ability to locate and interpret information as well as share that information through reading, writing, listening, speaking, viewing and presenting.

Textbook, Grades 6 and 7 Social Studies

World History

Burnstein, Stanley M., Shek, Richard

Published by Holt, Rinehart and Winston, Austin, TX (2006)

GRADE 6 SOCIAL STUDIES CURRICULUM

CP AND HONORS CLASSES COVER:	HONORS CLASSES ALSO INCLUDE:
<ul style="list-style-type: none"> • Ancient Civilizations • Early Humans/Archaeology • Early River Cultures/Mesopotamia • River Civilizations: Egypt • River Civilizations: China • Ancient Rome • The Maya • The Middle Ages 	<ul style="list-style-type: none"> • Faster pacing of units • More activities that focus on extension of concepts • An expectation of work to be completed independently rather than whole class

GRADE 7 SOCIAL STUDIES CURRICULUM

CP AND HONORS CLASSES COVER:	HONORS CLASSES ALSO INCLUDE:
<ul style="list-style-type: none"> • World Geography • Far East • Latin America • Middle East • Africa 	<ul style="list-style-type: none"> • Faster pacing of units • More activities that focus on extension of concepts • An expectation of work to be completed independently rather than whole class

Textbook, Grade 8 Social Studies*Creating America*

Burnstein, Stanley M., Shek, Richard

Published by Holt, McDougal, Austin, TX (2006)

GRADE 8 SOCIAL STUDIES CURRICULUM

CP AND HONORS CLASSES COVER:	HONORS CLASSES ALSO INCLUDE:
<ul style="list-style-type: none"> • Coming of America • The United States Constitution • Civil War and Civil Rights • Emergences of the Modern United States • Contemporary United States • Research projects may include: <ul style="list-style-type: none"> - History Day - IB Middle Years inquiry-based project - 8th Grade Exhibition - 21st century skills - College and career readiness skills 	<ul style="list-style-type: none"> • Faster pacing of units • More activities that focus on extension of concepts • An expectation of work to be completed independently rather than whole class

Grade 6 Placement Criteria

For the 2011 - 2012 school year, grade 6 students will be placed into one of two instructional groups, College Prep or Honors, for mathematics/science and English language arts/social studies. All students will engage in standards-based curricula that will prepare them to be college ready upon graduation. Notification of student placement will be sent to grade 6 families in August 2011.

Grade 6 students will be placed according to district-wide results from the following assessments: the Connecticut Mastery Test (CMT), the Otis Lennon School Ability Test (OLSAT) and the Naglieri Nonverbal Ability Test (Naglieri). The OLSAT and Naglieri were administered in March 2011 to grade 5 students so that more of students' strengths and abilities could be measured, beyond performance on the CMT. Students' mathematics and reading assessment results will be evaluated separately to allow for different levels of support or acceleration for students in different content areas.

The criteria for placement into the College Prep and Honors groups for mathematics/science and English language arts/social studies are as follows:

MATHEMATICS/SCIENCE		
Instructional Group	Mathematics CMT* Performance Level Criterion	OLSAT and Naglieri Criteria
Honors	5	All OLSAT and Naglieri percentile ranks
	4	Scoring at or above the 70th percentile on both OLSAT and Naglieri
College Prep	4	Scoring below the 70th percentile on one or both OLSAT and Naglieri
	3	All OLSAT and Naglieri percentile ranks
	2	All OLSAT and Naglieri percentile ranks
	1	All OLSAT and Naglieri percentile ranks

ENGLISH LANGUAGE ARTS/SOCIAL STUDIES		
Instructional Group	Reading CMT* Performance Level Criterion	OLSAT and Naglieri Criteria
Honors	5	All OLSAT and Naglieri percentile ranks
	4	Scoring at or above the 60th percentile on both OLSAT and Naglieri
College Prep	4	Scoring below the 60th percentile on one or both OLSAT and Naglieri
	3	All OLSAT and Naglieri percentile ranks
	2	All OLSAT and Naglieri percentile ranks
	1	All OLSAT and Naglieri percentile ranks

* Higher performance level taken from grade 4 CMT results (Spring 2009) and grade 5 CMT results (Spring 2010).

NOTE:

Grade 6 students who are new to the district in 2011-2012 will be placed on a case-by-case basis using available data, including CMT results (if available).

Grade 6 Regrouping Process

During the 2011-2012 school year, grade 6 students in College Prep will have the opportunity to be moved to Honors at the end of the first semester. If a grade 6 College Prep student meets the regrouping criteria below, she/he will be moved to Honors for the remainder of the 2011-2012 school year.

MATHEMATICS/SCIENCE	ENGLISH LANGUAGE ARTS/ SOCIAL STUDIES
<ul style="list-style-type: none">• Score of 90% or higher on end-of-semester district-wide mathematics assessment AND <ul style="list-style-type: none">• Quarter 2 Mathematics teacher grade of A <u>or</u> Mathematics teacher recommendation	<ul style="list-style-type: none">• Score of 11 or 12 points on a writing assessment AND <ul style="list-style-type: none">• Quarter 2 English Language Arts teacher grade of A <u>or</u> English Language Arts teacher recommendation

Families will be notified at the end of the first semester (January) if their student will move from College Prep to Honors.

Grade 7 Placement Criteria

For the 2011 - 2012 school year, grade 7 students will be placed into one of two instructional groups, College Prep or Honors, for mathematics/science and English language arts/social studies. All students will engage in standards-based curricula that will prepare them to be college ready upon graduation. Notification of student placement will be sent to grade 7 families in August 2011.

STUDENTS WHO FINISHED GRADE 6 IN HONORS WILL REMAIN IN HONORS:

Grade 6 students who finished the 2010 - 2011 school year in Honors mathematics/science will be placed in Honors mathematics/science in grade 7; grade 6 students who finished the 2010 - 2011 school year in Honors English language arts/social studies will be placed in Honors English language arts/social studies in grade 7.

STUDENTS WHO FINISHED GRADE 6 IN COLLEGE PREP WILL BE PLACED IN HONORS IF THEY MEET THE CRITERIA DESCRIBED BELOW:

MATHEMATICS/SCIENCE

Grade 6 students who finished the 2010 - 2011 school year in College Prep mathematics/science will be placed in Honors if they score at Level V (Advanced) on the 2011 grade 6 CMT in mathematics. Grade 6 students who scored at Levels I, II, III, or IV (Below Basic, Basic, Proficient or Goal) on the 2011 grade 6 CMT in mathematics will be placed in College Prep unless they meet the following criteria:

MATHEMATICS/SCIENCE PLACEMENT CRITERIA INTO HONORS (for grade 7 students who finished grade 6 in College Prep Mathematics/Science)

- **Connecticut Mastery Test (CMT) in Mathematics**—Student score at Level IV (Goal) on the grade 5 CMT in mathematics and/or student score at or above Level IV (Goal) on grade 6 CMT in mathematics.
- AND
- **Mathematics Common District Assessment**—Score of 90% or higher on the mathematics common district final assessment administered in June. The assessment is cumulative for grade 6 content.
- AND
- **Mathematics teacher grade of A or mathematics teacher recommendation**

STUDENTS ELIGIBLE FOR ALGEBRA IN GRADE 7

A small number of Grade 7 students will be eligible for Algebra I according to the following criteria:

MATHEMATICS PLACEMENT CRITERIA FOR ALGEBRA 1

- **Connecticut Mastery Test (CMT) in Mathematics**—Student score at Level V (Advanced) on the grade 5 or 6 CMT in Mathematics
- AND
- **Superior achievement on Orleans-Hanna Algebra Prognosis Test, administered in Spring 2011**

ENGLISH LANGUAGE ARTS/SOCIAL STUDIES

Grade 6 students who finished the 2010 - 2011 school year in College Prep English language arts/social studies will be placed in Honors if they score at Level V (Advanced) on the 2011 grade 6 CMT in reading. Grade 6 students who scored at Levels I, II, III or IV (Below Basic, Basic, Proficient or Goal) on the 2011 grade 6 CMT in reading will be placed in College Prep unless they meet the following criteria:

ENGLISH LANGUAGE ARTS/SOCIAL STUDIES PLACEMENT CRITERIA INTO HONORS

(for grade 7 students who finished grade 6 in College Prep English Language Arts/Social Studies)

- **Connecticut Mastery Test (CMT) in Reading**—Student score at Level IV (Goal) on the grade 5 CMT in reading and/or student score at/above Level IV (Goal) on grade 6 CMT in reading
- AND
- **English Language Arts Common District Assessment**—Student score of 11 or 12 points on a writing assessment*
- AND
- **English Language Arts teacher grade of A or English Language Arts teacher recommendation**

* Based on sum of two reviewers' scores using a standard rubric.

NOTE:

Grade 7 students who are new to the district in 2011 - 2012 will be placed on a case-by-case basis using available data, including CMT results.

Grade 7 Regrouping Process

During the 2011-2012 school year, grade 7 students in College Prep will have the opportunity to be moved to Honors at the end of the first quarter (November). If a grade 7 College Prep student meets the regrouping criteria below, she/he will be moved to Honors for the remainder of the 2011 - 2012 school year.

MATHEMATICS/SCIENCE	ENGLISH LANGUAGE ARTS/SOCIAL STUDIES
<ul style="list-style-type: none"> • Score of 90% or higher on end-of-quarter district-wide mathematics assessment <p style="text-align: center;">AND</p> <ul style="list-style-type: none"> • Quarter 1 mathematics teacher grade of A <u>or</u> mathematics teacher recommendation 	<ul style="list-style-type: none"> • Score of 11 or 12 points on a writing assessment <p style="text-align: center;">AND</p> <ul style="list-style-type: none"> • Quarter 1 English language arts teacher grade of A <u>or</u> English language arts teacher recommendation

Families will be notified at the end of the first quarter (November) if their student will move from College Prep to Honors.

Grade 8 Placement Criteria

For the 2011 - 2012 school year, grade 8 students will be placed into one of two instructional groups, College Prep or Honors, for mathematics/science and English language arts/social studies. All students will engage in standards-based curricula that will prepare them to be college ready upon graduation. Notification of student placement will be sent to grade 8 families in August 2011.

STUDENTS WHO FINISHED GRADE 7 IN HONORS WILL REMAIN IN HONORS:

Grade 7 students who finished the 2010 - 2011 school year in Honors mathematics/science will be placed in Honors mathematics (Algebra I)/science in grade 8; grade 7 students who finished the 2010 - 2011 school year in Honors English language arts/social studies will be placed in Honors English language arts/social studies in grade 8.

STUDENTS WHO FINISHED GRADE 7 IN COLLEGE PREP WILL BE PLACED IN HONORS IF THEY MEET THE CRITERIA DESCRIBED BELOW:

MATHEMATICS/SCIENCE

Grade 7 students who finished the 2010 - 2011 school year in College Prep mathematics/science will be placed in Honors (Algebra I) if they score at Level V (Advanced) on the 2011 grade 7 CMT or scored at/above the local 80th percentile on the Orleans-Hanna Algebra Prognostic Test, administered in April 2011. Grade 7 students who score at Levels I, II, III or IV (Below Basic, Basic, Proficient or Goal) on the CMTs will continue in College Prep.

ENGLISH LANGUAGE ARTS/SOCIAL STUDIES

Grade 7 students who finished the 2010 - 2011 school year in College Prep English language arts/social studies will be placed in Honors if they score at Level V (Advanced) on the 2011 grade 7 CMT in reading. Grade 7 students who scored at Levels I, II, III, or IV (Below Basic, Basic, Proficient or Goal) on the 2011 grade 7 CMT in reading will be placed in College Prep unless they meet the following criteria:

ENGLISH LANGUAGE ARTS/SOCIAL STUDIES PLACEMENT CRITERIA INTO HONORS (for grade 8 students who finished grade 7 in College Prep English Language Arts/Social Studies)
<ul style="list-style-type: none"> • Connecticut Mastery Test (CMT) in Reading— Student score at Level IV (Goal) on the grade 6 CMT in Reading and/or student score at or above Level IV (Goal) on grade 7 CMT in Reading. <p>AND</p> <ul style="list-style-type: none"> • English Language Arts Common District Assessment— Student score of 11 or 12 on a writing assessment. * <p>AND</p> <ul style="list-style-type: none"> • English Language Arts teacher grade of A or Language Arts teacher recommendation

* Based on sum of two reviewers' scores using a standard rubric.

NOTE: Grade 8 students who are new to the district in 2011 - 2012 will be placed on a case-by-case basis using available data, including CMT results.

Grade 8 Regrouping Process

During the 2011 - 2012 school year, grade 8 students in College Prep will have the opportunity to be moved to Honors at the end of the first quarter (November) in English language arts/social studies, only. Families will be notified at the end of the first quarter (November 2011) if their student will move from College Prep to Honors.

Grade 8 students who begin the school year in College Prep math will continue in College Prep for the year. Instruction in math is highly cumulative. It is necessary for students to have a solid understanding of Algebra I topics taught at the beginning of the school year in order to be successful with topics taught later in the school year.

MATHEMATICS/SCIENCE	ENGLISH LANGUAGE ARTS/SOCIAL STUDIES
<ul style="list-style-type: none"> • Regrouping assessments will not be administered because the first quarter instruction in Algebra I is foundational for the remainder of the year 	<ul style="list-style-type: none"> • Score of 11 or 12 points on a writing assessment <p>AND</p> <ul style="list-style-type: none"> • Quarter 1 English language arts teacher grade of A or English language arts teacher recommendation

Advisories

Middle school is a time of rapid change for developing adolescents. Students do best when they can rely on one or more adults to help them learn from their experiences, comprehend physical changes and changing relations with family and peers, act on their behalf to marshal school and community resources, and fashion a promising vision of the future. Advisories give students a time and place where their non-academic needs can be met. Small-group advisories provide personalized guidance and the active monitoring that young adolescents need. When students make a lasting connection with at least one caring adult, academic and personal outcomes improve.

Some of the purposes of advisories are to:

- Ensure each student is well-known by at least one adult who is that student's advocate (advisor)
- Develop relationships to support learning
- Guarantee that every student belongs to a peer group
- Help each student find ways to be successful within the academic and social options the school provides
- Promote communication and coordination between home and school

Teachers serve as mentors and role models for students in their advisory group. Strong advisories help students gain emotional strength, self-knowledge, and social skills through peer interaction and the acceptance and personal affirmation of trusted adults. While models of advisories vary nationally, Stamford Public Schools provides weekly time dedicated to addressing the social/emotional needs of students. The Efficacy Institute has provided training in supporting academic achievement for all students, as well as the books, *Your Tools for Getting Smart*, and *Treasure Chest: A Teacher Advisory Source Book* to support the work of advisories.

ACTIVITIES

The range of advisory topics may include:

- Health-related questions
- Concerns about school work
- Interpersonal issues
- Stress management
- Personal development
- Social relationships
- Study skills
- Time management
- Organizational skills
- Team-building
- Strengths and weaknesses
- Interest inventories
- Resume writing
- Goal-setting
- Character traits
- Learning styles
- Life lessons
- Community service

Grade 6 Sample Schedule

	DAY 1	DAY 2	DAY 3	DAY 4
Period 1 8:10-9:10	Academic Enrichment, Academic Support	Academic Enrichment, Academic Support	Academic Enrichment, Academic Support	Academic Enrichment, Academic Support
Period 2 9:10-10:10	Music, Art, Physical Education	Music, Art, Physical Education	Music, Art, Physical Education	Music, Art, Physical Education
Period 3 10:10-11:10	Mathematics	Science	Social Studies	English Language Arts
Period 4 11:10-11:45	Science	Social Studies	English Language Arts	Mathematics
Lunch 11:45-12:10	LUNCH			
Period 4 (cont) 12:10-12:40	Science (cont) or Advisory*	Social Studies (cont) or Advisory*	English Language Arts (cont) or Advisory*	Mathematics (cont) or Advisory*
Period 5 12:40-1:40	Social Studies	English Language Arts	Mathematics	Science
Period 6 1:40-2:40	English Language Arts	Mathematics	Science	Social Studies

* Advisory in grades 6 - 8 may occur once or twice within the 4-day schedule

Grade 7 Sample Schedule

	DAY 1	DAY 2	DAY 3	DAY 4
Period 1 8:10-9:10	Mathematics	Science	Social Studies	English Language Arts
Period 2 9:10-10:10	Science	Social Studies	English Language Arts	Mathematics
Period 3 10:10-11:10	Social Studies	English Language Arts	Mathematics	Science
Period 4 11:10-12:10	English Language Arts or Advisory*	Mathematics or Advisory*	Science or Advisory*	Social Studies or Advisory*
Lunch 12:10-12:40	LUNCH			
Period 5 12:40-1:40	Music, Art, Physical Education	Music, Art, Physical Education	Music, Art, Physical Education	Music, Art, Physical Education
Period 6 1:40-2:40	Academic Support, World Language, AVID, Academic Enrichment	Academic Support, World Language, AVID, Academic Enrichment	Academic Support, World Language, AVID, Academic Enrichment	Academic Support, World Language, AVID, Academic Enrichment

* Advisory in grades 6 - 8 may occur once or twice within the 4-day schedule

Grade 8 Sample Schedule

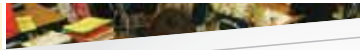
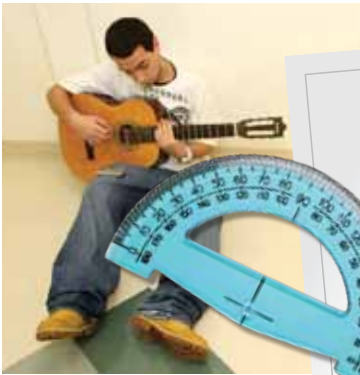
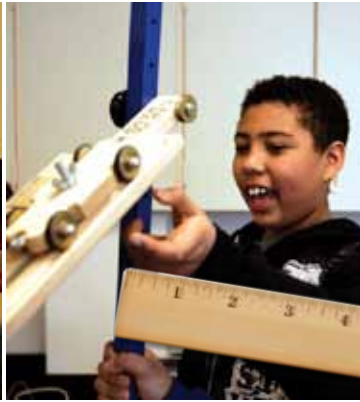
	DAY 1	DAY 2	DAY 3	DAY 4
Period 1 8:10-9:10	English Language Arts	Mathematics	Science	Social Studies
Period 2 9:10-10:10	Academic Enrichment, Academic Support	Academic Enrichment, Academic Support	Academic Enrichment, Academic Support	Academic Enrichment, Academic Support
Period 3 10:10-11:10	Mathematics	Science	Social Studies	English Language Arts
Lunch 11:10-11:40	LUNCH			
Period 4 11:40-12:40	Music, Art, Physical Education	Music, Art, Physical Education	Music, Art, Physical Education	Music, Art, Physical Education
Period 5 12:40-1:40	Science or Advisory*	Social Studies or Advisory*	English Language Arts or Advisory*	Mathematics or Advisory*
Period 6 1:40-2:40	Social Studies	English Language Arts	Mathematics	Science

* Advisory in grades 6 - 8 may occur once or twice within the 4-day schedule

Glossary

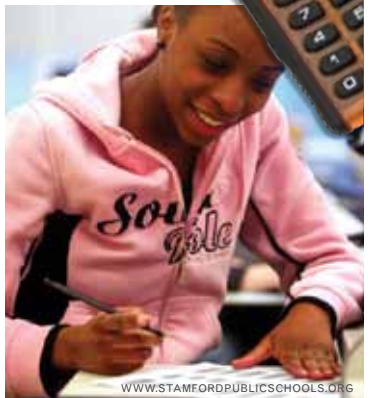
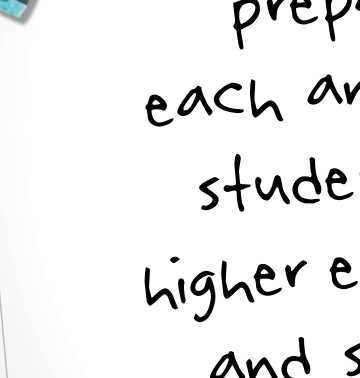
Academic Enrichment	A course in which students participate in academic extension and academic support.
Advisories	Weekly class periods dedicated to addressing the social/emotional needs of students.
College Prep Group	One of two flexible groups of students for mathematics/ science and English language arts/social studies. Criteria for placement into the College Prep group are based on student assessment results. Students in the College Prep and Honors groups cover the same components of the curriculum.
Connected Mathematics Program 2 (CMP2)	A standards-based mathematics curriculum implemented in grade 6 (2008-2009), grade 7 (2009-2010) and grade 8 (2010-2011).
Connecticut Mastery Test (CMT)	Annual, grade-level assessment administered statewide to students in grades 3 - 8 designed to measure student performance in the areas of mathematics, reading and writing, and science (grades 5 and 8 in 2008). The assessment focuses on content that is reasonable to expect students at each grade to master.
Core Curriculum	The four major courses of study offered to all middle school students. They are mathematics, English language arts, science and social studies.
Honors Group	One of two flexible groups of students for mathematics/ science and English language arts/social studies. Although students in the Honors and College Prep groups cover the same components of the curriculum, those in the Honors group will progress more quickly through the introductory or standard components.

Naglieri Nonverbal Ability Test	A language-free assessment that is a reliable, culture-fair measure of ability that can be used to evaluate students of diverse cultural and linguistic backgrounds. The Naglieri is administered to grade 5 students in the Spring.
Orleans-Hanna Algebra Prognosis Test	An assessment that predicts student success in first-year Algebra by measuring aptitude and achievement.
Otis Lennon School Achievement Test (OLSAT)	An assessment that measures a student’s cognitive abilities that relate to abilities to learn in school. The OLSAT assesses a student’s abstract thinking and reasoning abilities. The OLSAT is administered to grade 5 students in the Spring.
Regrouping Assessment	An assessment offered to eligible students to measure readiness to move to an Honors class.
Science Education for Public Understanding Program (SEPUP)	An issue-oriented science program that engages students in a variety of learning activities, including scientific investigations, to build students’ knowledge of science ideas and skills. At the end of every unit, students are asked to apply their new knowledge and skills by evaluating evidence and making informed decisions about an issue.
Workshop Model	An instructional technique used across content areas that maximizes student participation in learning through active participation with peers. The workshop model is generally comprised of a three-phase process: (1) introduction, when the teacher poses a question or relevant content; (2) student pair or group work on the question or content (with teacher guiding students); and (3) summary of the content by the teacher and/or student.



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