



GRADE 6

Curriculum in the Middle Schools



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Mathematics

The goal for all WHPS students is to see the world through a mathematical lens and develop an appreciation for the beauty and underlying structure in the patterns, logic, and challenge of mathematics. All students are capable of using their growing mathematical



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understanding to make sense of new problems and the world around them.

The Grade 6 mathematics curriculum incorporates the Connecticut Core Standards for Mathematics (CCS-M). In all grades, the following mathematical practices are integrated throughout the program:

- 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

In Grade 6, the major themes include extension of understanding and application of ratios, rational numbers, one-variable equations and inequalities, area, surface area, volume, data distribution, and variability of a data set.

Science

The West Hartford Science curriculum is developed from the Next Generation Science Standards and seeks to present science learning in a three-dimensional method that integrates Disciplinary Core Ideas, Science and Engineering Practices, and Crosscutting Concepts.

During the 6th grade, students will explore the following units:

What does a scientist look like? What skills do they possess? In this unit, students are introduced to key skills, qualities, and crucial procedures that real-world scientists possess and follow. Students will learn essential safety protocols for conducting experiments in a science lab. Students will engage in Science and Engineering Practices (SEPs) to learn how to ask meaningful questions, plan and carry out investigations, analyze and interpret data, and obtain and communicate information.

How does adding or removing energy change particle motion? This unit on states of matter and energy transfer explores the characteristics and behaviors of solids, liquids, and gasses, focusing on how thermal energy influences the movement of particles and changes in state. Students will learn about melting, freezing, vaporization, and condensation, and how energy transfers through conduction, convection, and radiation. Through interactive simulations, experiments, and real-world applications, such as weather patterns and cooking, students will gain a comprehensive understanding of these concepts.

Why does the weather change? What factors cause certain weather events? Weather affects everyone's daily lives. By understanding why weather changes and what factors influence different weather events, students can better comprehend the weather forecasts



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they hear and see, allowing them to make informed decisions about activities and preparations. Over the course of this unit, students will discover the reasons behind weather changes by exploring the fundamental factors that influence atmospheric conditions. They will understand and explain the processes of energy transfer and atmospheric circulation, investigate the role of water vapor and pressure systems, and gain insight into the complex interactions of forces shaping our planet's weather patterns. Students will be able to make predictions based on weather maps and information from weather instruments. Students will also be able to explain how the sun's energy influences ocean temperatures which in turn influence air temperatures.

What's causing Climate Change? What's causing global average temperatures to increase and the amount of Arctic sea ice to decrease? This unit is designed to position students as climatologists who are researching the causes and effects of climate change and educate the public about their findings. In the first section, students learn about the relationship between global average temperatures, the amount of Arctic sea ice, and energy absorbed by Earth's system. Then, students investigate important greenhouse gasses involved in climate change and model how they interact with energy in Earth's system. Students are introduced to different human activities and the impact they each have on greenhouse gas emissions, energy absorbed, amount of Arctic sea ice, and global average temperatures.

What causes Earth's surface to change? Students will explore how the surface of the Earth changes over time. They begin with the phenomenon of the growth of Mt. Everest. Students will explore the three main types of rocks—igneous, sedimentary, and metamorphic—and the changes to rocks under intense heat and pressure. They investigate locations that are known to have earthquakes, volcanoes and mountains, identifying patterns from seismic data. By analyzing data and identifying patterns, students will gain insights into how tectonic plates interact at different types of boundaries, from convergent to divergent, and transform boundaries. Students will explore the forces of erosion and uplift. They will learn how water, wind, gravity, and glaciers shape the Earth's surface over time. By the end of this unit, students will have gained a deeper understanding of the dynamic processes that have shaped the Earth's surface from the breakup of Pangaea to present-day.

English Language Arts

During Grade 6 English Language Arts classes students will explore the following concepts and skills:

- read literature from a wide variety of genres such as mythology, classic and contemporary fiction, poetry, and literary nonfiction.
- examine why point of view is important in literature through the analysis of a wide variety of fiction and non-fiction texts.
- identify and analyze complex characters, text structures, and the development of theme through the close reading of both whole-class novels and texts in literature circles.
- develop as writers of three types of writing: narrative, expository, and argument.
- engage in the writing process at least once a quarter including the use of graphic organizers, drafting, and peer/ self-revision to



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- publish their work.
- continue to develop their vocabulary while investigating unfamiliar words from literature and using them in their own working vocabulary.
- advance their communication skills as they explore various methods of presentation, including multimedia.

Social Studies

The social studies curriculum is aligned with the national College, Career, and Citizenship (C3) frameworks as well as the Connecticut state social studies curriculum frameworks. Key disciplinary content and skills, as well as core literacy standards for reading, writing, speaking and listening are embedded within our curricula. Our curriculum is driven by student inquiry and requires students to engage with compelling questions in order to understand the world around us and take informed action based on their learning.

In addition to disciplinary content, students are equipped with the tools necessary to engage in inquiry. In particular, students will learn to:

- Recognize, develop, and articulate compelling questions.
- Gather and evaluate sources and then use evidence to understand the complexity of multiple social studies topics.
- Explore multiple perspectives to develop their own understanding of history and social studies topics.
- Engage in conversations and share their understandings of the world around them.

Students in grade 6 and 7 engage in a two year global studies program. In grade six, course themes include human-environment interaction, migration of people and ideas, and innovation and technology. Through the development of key social studies skills each student will be encouraged to “think like a global citizen.” Critical reading and research skills are further developed through the study of both historical and contemporary issues.

The Connecticut State Department of Education is currently in the process of revising the Social Studies standards. Middle school social studies teachers, therefore, are piloting some curriculum materials and resources this year in preparation for the new standards.

World Languages

At the beginning of grade 6, students select Chinese, French, or Spanish as their World Language for all three years of middle school. Our program goals focus on:

- Communication: to use language in three modes: interpersonal, interpretive and presentational
- Cultures: to understand cultures through products, practices and perspectives of speakers of that language
- Connections: to understand relationships of language to other disciplines and new frontiers
- Comparisons: to develop insight into one’s own language and culture as well as those of the new language
- Community: to apply language beyond the classroom in a global setting

Students also explore the cultures and communities who speak the target language in order to make connections and build their understanding about products, practices and perspectives.



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Technology & Engineering

STEM: Science → Technology → Engineering → Math

Helping students gain the skills required to succeed in today's challenging world including critical thinking, problem solving and the ability to drive advancements in STEM. The Technology & Engineering Department puts the "T&E" in STEM.

Our program goals seek to enable students to:

- Advance technological and information literacy
- Apply creative problem solving and critical thinking skills within the design process
- Understand the impacts of technology on society
- Collaborate to enhance experiential learning and communication in a diverse environment
- Develop STEM career awareness and exploration

School Counseling

School counselors provide skills and experiences that promote student academic, social-emotional and career development. These skills and experiences are provided through both **Direct** and **Indirect** delivery of services and define the nature and role of today's school counselor.

Direct Services are face-to-face interactions between the counselor and students.

Examples include:

- Delivery of the school counseling curriculum
- College and Career Readiness Activities
- Individual / Group Counseling
- Crisis Intervention and Responsive Services

Indirect Services are interactions the counselor has with other stakeholders on behalf of students.

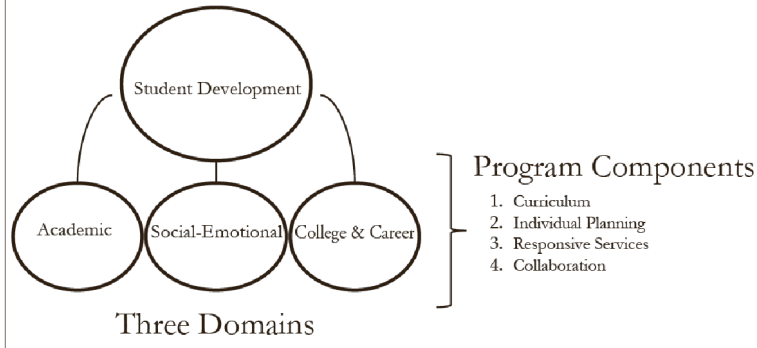
Examples include:

- Advocacy to ensure equitable access and opportunities for all students
- Consultation with parents, school-based personnel and community agencies
- Program coordination and management
- Leadership initiatives to enhance student learning and promote healthy development



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A Comprehensive Model



Sources:

- A Guide to Comprehensive School Counseling: Program Development: State of Connecticut: State Board of Education 2008
- American School Counselor Association (2012). The ASCA National Model: A Framework for School Counseling Programs, Third Edition. Alexandria, VA: Author

Unified Arts

Middle school students participate in 36-day unified arts rotations in the areas of physical education, music, art, health, and technology education.

Note: The Unified Arts Program is delivered slightly differently at Bristow Middle School where there are 6 rotations, each lasting for 30 days. The UA curriculum and the courses are identical to the other two middle schools with the only difference being that at Bristow, physical education and health are combined into one course of study called “Wellness”. Every student will be in a wellness rotation at any given time throughout the year.

Visual Arts

The middle schools, Visual Arts classes emphasize understanding the creative process. The curriculum aligns with the National Core Arts Standards (NCAS), and learning focuses on these four key skills:

- **Connecting/Exploring Culture** through learning about concept and skill
- **Creating** and developing skills through exploring a variety of materials and techniques
- **Responding** through applying appropriate vocabulary in critique and reflection
- **Aesthetic Discourse** while supporting one’s own judgment

Music

In sixth grade, students continue to develop musicianship skills through singing, reading and writing music, improvisation, and critical listening. In performance ensembles, students advance their individual and ensemble skills, such as blend, articulation, expression, and



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sight-reading through a broad selection of music. Instrumental students also receive weekly small group instruction focusing on individual technique within a specific instrument grouping.

Physical Education

Sixth grade students participate in a number of activities that may include the following:

- Adventure Education
- Invasion sports (basketball, flag football, lacrosse, team handball)
- Creative Dance
- Fitness
- Net and wall sports (badminton, pickleball, speedminton, tennis, volleyball)

Sixth grade students participate in the CT Physical Fitness Assessment, required by the CT State Department of Education. Changing for Physical Education is optional; it is not a requirement. Students should be dressed in clothing that allows for maximum participation. Sneakers are required. Appropriate attire for colder, outdoor classes is recommended.

Health

The middle school health curriculum aligns with national and state standards. Students practice and apply health literacy skills as they study various topics in health education. The major topics are:

- Effective communication and positive decision making skills
- Changes that occur during adolescence
- Accepting our own and others unique identities and qualities
- Developing and managing relationships
- Emotional awareness and managing one's emotions
- Being an ally
- Alcohol, nicotine and substances
- Violence prevention, bullying, harassment, sexual harassment, cyberbullying
- Reproductive systems, AIDS, and hygiene
- Safe use of technology
- How to manage emergencies
- Time management

Library Media Services

The Library Media goals for middle school students are:

- Read widely and deeply in multiple formats, across a variety of genres, to develop empathy and respect for diverse perspectives, to become an informed citizen, as well as to satisfy their own personal curiosity and interests and to develop the lifelong habit of



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reading.

- Engage in a sustained inquiry-based research process for academic and personal growth.
- Evaluate information sources on the basis of accuracy, validity, appropriateness for needs, importance, and social and cultural context.
- Generate products that demonstrate learning, problem solving, and communication skills.
- Participate responsibly in personal, social, and intellectual networks by using a variety of tools and resources to communicate ideas locally and globally.
- Follow ethical and legal guidelines for gathering and using information and acknowledging authorship and intellectual property rights.

QUEST

Per the CT state regulations, a “Gifted and Talented means a child identified (1) possessing demonstrated or potential abilities that give evidence of very superior intellectual, creative or specific academic capability and (2) needing differentiated instruction or services beyond those being provided in the regular school program to realize their intellectual, creative or specified academic potential.”

Identified students have unique individual education and social, and emotional needs and characteristics. These students require services or activities not ordinarily provided to develop their capabilities as mandated by state statute fully. The responsibility of the school committee is to identify specific academic student needs that require appropriate supplementary services. Once placed at the elementary level, students continue participation in middle school QUEST.

The QUEST program is committed to providing challenging experiences for all learners. It nurtures the student’s ability to view lessons as a means for a different way to solve problems-the personalizing of learning based on strengths with an optimizing student’s academic potential. The program is committed to a broad-based inclusion of students from diverse ethnic and socio-economic backgrounds that ensure that all students have an opportunity to be recognized for their unique gifts, talents, and socio-emotional needs. Additional pathways for identification are in grades 6-8.

Support Services

Special Education, ESOL (English for Speakers of Other Languages), remedial reading services, and math support are available for students who may need them.