

ELEMENTARY CURRICULUM HANDBOOK

www.herricks.org



GRADE
5



HERRICKS
PUBLIC
SCHOOLS

Revised 2023



CURRICULUM

The Herricks name is synonymous with quality, and the district is genuinely committed to meeting the needs of all students. Innovative techniques, combined with years of experience and expertise, are educational cornerstones of the district. Districtwide, the Herricks program is a comprehensive learning experience offering a number of alternatives as well as a wide range of methods within a core program of traditional classroom instruction. A strong network of support services is provided for all students. District policy encourages small class size and close interpersonal relationships among teachers and students. Each student is afforded the time and nurturing necessary to develop qualities of individuality and strength.

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English Language Arts



Reading

Students in fifth grade will experience a balance of literature and informational texts in the context of instruction designed to create opportunities for them to engage in a variety of topics and texts. Discussion about texts will support language development and knowledge building. Students will continue to develop their research skills through inquiry-based activities. During Reading Workshop, students will take part in learning activities that include read alouds, shared readings, paired readings, independent readings, and other learning activities that incorporate literacy materials, talking and writing.

By the end of the school year, fifth grade students will read and comprehend literary and informational texts at or above grade level. As in the early grades, there still will be a distinction between the complexity of the texts used for children to work on their independent comprehension skills and the complexity of the texts used as part of teacher-led classroom instruction and units of study to build up their academic language and content knowledge. Because each reader brings different skills and background knowledge to the act of reading, a text that is complex for one reader may be accessible to a peer in the same classroom. Students will move through a continuum of reading skills that increase in difficulty, and read texts that increase in complexity as they grow as readers.



Writing

During Writing Workshop, fifth grade students will develop their writing skills through the writing process with a variety of texts. They will work independently and collaboratively to plan, revise and strengthen their writing. Through these activities students will produce texts while they learn about and develop oral language/written language and reading/writing connections. Students in fifth grade will write for multiple purposes (to entertain, to explain, to persuade) and learn to synthesize information from various sources to form an argument. In all writing tasks, students will learn to use and to adjust language to best communicate ideas, content and message to readers; that is, fifth graders should be clear on the distinction between conversational and academic language and their purposes and use – they should be able to move between registers and show mastery of some of the conventions of academic language. Students' academic language skills, including written language, co-develop with content and world knowledge and through opportunities to read, write and discuss with peers.



Vocabulary and Word Work

Throughout the year, students will be immersed in vocabulary-rich instruction. They will be exposed to vocabulary across all content areas, as well as through literary and informational read alouds. Different grammatical forms of base words will be studied. Students will be encouraged to utilize new terms in conversations and published pieces.



Library

Students in grades 3-5 will continue their development of library and research skills. By the end of fifth grade, students will understand how to navigate all sections of the library independently and be able to recognize, identify and locate various print materials. In addition, students will learn how to utilize the online catalog to search for information in a variety of ways. They will have experience utilizing various databases that our library offers to answer self-generated research inquiries. Through their research work, students will learn how to cite sources, utilize text features, use technology to organize information and take notes using various note-taking strategies. They will be introduced to the concept of copyrighted material and how to avoid plagiarism. Students will also engage critically with media sources to assess the credibility and relevance of various sources while taking into consideration the author's intent and point of view. Finally, students will continue to develop as digital citizens by practicing how to cautiously navigate the Web, understanding their own online footprint and serving as models for others when it comes to behaving responsibly and ethically online.

[New York State Next Generation English Language Arts Learning Standards](#)

Math



The Herricks Department of Mathematics promotes intellectual curiosity and cultural expression, values diversity and is committed to providing the skills and knowledge that will serve students throughout their lives. Our K-5 curriculum is reflective of the New York State Next Generation Mathematics Learning Standards. The Next Generation Learning Standards helps to define what students should understand and be able to do in their study of mathematics. They further specify the understanding, knowledge and skills that students should acquire from pre-K through commencement in 12th grade.

Students will be engaged in dialogue and learning experiences that allow them to develop a deep understanding of the foundational domains of mathematics: number sense, operations and algebraic thinking, geometry, and measurement and data. Mathematics learning in fifth grade is built around four domains.

In the **Number and Operations – Fractions and Operations and Algebraic Thinking** domain, students:

- Apply their understanding of fractions and fraction models to represent the addition and subtraction of fractions with unlike denominators as equivalent calculations with like denominators.
- Develop fluency in calculating sums and differences of fractions, and make reasonable estimates of them.
- Use the meaning of fractions, of multiplication and division, and the relationship between multiplication and division to understand and explain why the procedures for multiplying and dividing fractions make sense.

In the **Operations and Algebraic Thinking and Number and Operations in Base Ten** domains, students:

- Develop understanding of why division procedures work based on the meaning of base ten numerals and properties of operations.
- Apply understandings of models for decimals, decimal notation and properties of operations to add and subtract decimals to hundredths.
- Develop fluency with decimal computations to hundredths, and make reasonable estimates of their results.
- Use the relationship between decimals and fractions, as well as the relationship between finite decimals and whole numbers, to understand and explain why the procedures for multiplying and dividing finite decimals make sense.

In the **Measurement and Data and Geometry** domain, students:

- Recognize volume as an attribute of three-dimensional space.
- Understand that volume can be measured by finding the total number of same-size units of volume required to fill the space without gaps or overlaps.
- Understand that a 1-unit by 1-unit by 1-unit cube is the standard unit for measuring volume.
- Select appropriate units, strategies and tools for solving problems that involve estimating and measuring volume.
- Decompose three-dimensional shapes and find volumes of right rectangular prisms by viewing them as decomposed into layers of arrays of cubes.
- Measure necessary attributes of shapes to determine volumes to solve real-world and mathematical problems.

[New York State Next Generation Mathematics Learning Standards](#)

[Standards for Mathematical Practice](#)

Social Studies



Social studies is intended to promote civic competence through the integrated study of the social sciences and humanities. Within the school program, social studies provides coordinated, systematic study that draws upon such disciplines as anthropology, archaeology, economics, geography, history, law, philosophy, political science, psychology, religion, belief systems and sociology, as well as upon appropriate content from the humanities, mathematics and natural sciences. The primary purpose of social studies is to help young people develop the ability to make informed and reasoned decisions for the public good as citizens of a culturally diverse, democratic society in an interdependent world (adapted from the National Council for the Social Studies [NCSS] definition of social studies).

The **NYS Social Studies Framework** allows for:

- Students to develop an understanding of concepts and key ideas through inquiry, analysis of primary and secondary source documents, and disciplinary skills and practices.
- Students to be assessed on their understanding of key ideas and conceptual understandings as well as social studies practices.
- Students to be instructed across the K-12 spectrum by using a cohesive set of themes, key ideas and concepts.
- Districts and teachers to continue to have decision-making power about how to teach and illustrate key ideas and conceptual understandings to promote student understanding.

Fifth grade social studies is based on the history and geography of **The Western Hemisphere**, including the development of cultures, civilizations and empires; interaction between societies; and the comparison of the government and economic systems of modern nations. It also incorporates elements of archaeology.

The course covers a time span from prehistory into modern times and includes European exploration and its effects, government and economics, and the early peoples of America. Teachers help students make connections throughout the course, especially in the examination of citizenship related to modern political and economic issues.

[K-12 Social Studies Framework New York State Education Department](#)

Science



In Herricks, we provide students with an Activity, Project, Problem-Based (APB) instructional approach for science. The APB approach engages students in active development of knowledge and skills that are then transferred as they solve open-ended problems. In addition to content knowledge, students are building problem-solving, critical thinking, collaboration, communication and self-directed learning skills.

Students learn science best through the scientific method and the engineering design process. These learning experiences help them develop an understanding of core ideas and gain hands-on experiences with science and engineering practices. This will help students build the conceptual understanding that prepares them for the 21st century.

Scientific Method:



Engineering Design Process:



In **fifth grade**, the curriculum focuses on:

Physical Science: Elementary Science Program (ESP) **Mystery Matter**.

- Students use good observation skills to explore the properties of a powder found at a crime scene. Students record the properties, compare them to known powders and find out if the victim's suspicions are correct.

Elementary Enrichment Unit:* Project Lead the Way (PLTW) **Infection Detection**.

- Students learn about transmission of disease through a simulation and compare communicable and noncommunicable diseases.

Earth and Space Science: BOCES 4 Science (BOCES4) **Got Water?**

- Students investigate Earth's systems by exploring and modeling interactions among Earth's atmosphere, biosphere, geosphere and hydrosphere.

Space System: **Stars and the Solar System**.

- Students support an argument that differences in the apparent brightness of the sun compared to other stars is due to their relative distances from Earth.

Engineering and Technology: **PLTW Robotics and Automation**.

- Students define a simple design problem reflecting a need or a want that includes specified criteria for success. Then, students generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

*Enrichment units are for all students and will be included if time permits.

Health



The Herricks health curriculum utilizes core pieces of The Great Body Shop. This comprehensive health curriculum is sequential, developmentally appropriate, culturally sensitive and medically accurate. Each year builds upon the skills of the prior year, enabling the students to learn, practice and apply those skills. This skill-based approach includes big ideas that cover all aspects of physical, mental, social-emotional health, and safety.

These **big ideas** include:

- **Injury Prevention and Personal Safety.**
 - Rules for emergencies; first aid skills.
- **Nutrition.**
 - Influences on food choices; dietary goals; shopping and budgeting.
- **Functions of the Body.**
 - Reflexes vs. conscious actions; intelligences; respiratory system.
- **Growth and Development and the Cycle of Family Life.**
 - Growing up, endocrine system; role of hormones.
- **Disease and Illness Prevention.**
 - The immune system and transmission of disease; HIV/AIDS.
- **Substance Abuse Prevention.**
 - Short- and long-term effects of drugs; practicing positive values.
- **Community Health and Safety.**
 - Demonstrating responsibility to others; routines for keeping safe.
- **Self-Worth, Mental and Emotional Health.**
 - Communication and conflict resolution; support systems.
- **Environmental and Consumer Health.**
 - Consumer influences, advertising, product labels; managing money.
- **Physical Fitness.**
 - Benefits of exercise; safety routines; fitness goals.

[The Great Body Shop K-6 program guide](#)

Physical Education



The Herricks Elementary Physical Education program is aligned with the New York State Physical Education (NYS PE) Learning Standards. The Herricks program is not only designed for students to develop their gross motor skills, but also to practice good sportsmanship and to foster respect for others, the equipment and themselves.

The NYS PE Learning Standards are categorized by six anchor standards that support students in acquiring lifelong practices that promote community membership, healthy lifestyle and physical activity.

- **Standard 1.**
 - Students demonstrate competency in a variety of motor skills and movement patterns.
- **Standard 2.**
 - Students apply knowledge of concepts, principles, strategies and tactics related to movement and performance.
- **Standard 3.**
 - Students demonstrate the knowledge and skills to achieve and maintain a health-enhancing level of physical activity and fitness.
- **Standard 4.**
 - Students exhibit responsible personal and social behavior that respects self and other.
- **Standard 5.**
 - Students recognize the value of physical activity for overall wellness, enjoyment, challenge and/or self-expression.
- **Standard 6.**
 - Students recognize career opportunities and manage personal and community resources related to physical activity and fitness to achieve and maintain overall wellness.

Fifth grade is a time when students are maturing in their locomotor, nonlocomotor (for example bending, stretching, twisting) and manipulative skills across varying physical activities. Emerging forms of simple strategies and communication skills in small-sided games are developed at this grade. They can explain relationships between health-related fitness (endurance, strength, flexibility) and skill-related fitness (agility, balance, coordination), and identify health-enhancing behaviors. Students learn to locate and use personal and community resources as a means of participation in physical activities for enjoyment in their leisure time.

Activities/Units:

- Sports Skills.
- Team Sports – Team Sports Lead-Up/Small-Sided Games.
- Individual Sports.
- Cooperative Games.
- Circus Arts.
- Tumbling/Gymnastics.
- Obstacle Course Challenge.
- Jump Rope for Heart.
- Fitness (Stations).
- Track and Field.
- Recess Games.
- Field Day.

Art



By the fifth grade, students have accumulated a wide variety of experiences with the elements and principles of design. Concepts introduced in kindergarten have been sequentially developed. Students are now developmentally able to approach the challenges of perspective, reflected light and shadows on form. They are encouraged to incorporate line, space, value, color, texture, shape and form into their work from an individual point of view. Technology continues to be an important component of the art program, and students will have the opportunity to see various ways in which new technology can be used as a tool for the artist.

Students will create projects which demonstrate craftsmanship with a variety of tools and supplies. They will incorporate elements and principles of design while practicing self-directed problem-solving skills. Integrating the art curriculum with the academic areas will continue to provide learning experiences for students, while self-reflection and assessment will enable artists to grow and develop self-confidence.

Artistic Objectives (as per the New York State Art Standards):

- **Creating.**
 - Students create projects demonstrating craftsmanship with a variety of tools and supplies.
 - Students incorporate elements and principles of design.
 - Students practice self-directed problem-solving skills.
- **Performing.**
 - Students define the roles and responsibilities of a curator.
 - Students advocate for the safe and effective use of materials in the art room.
- **Responding.**
 - Students respond, reflect and analyze artwork from a personal perspective.
- **Connecting.**
 - Students connect projects and links concepts to personal, cultural, historical and societal influences.

[New York State Art Standards](#)

Music



Concepts introduced in earlier grades are further developed in fifth grade. Students will use the culmination of their musical knowledge and experiences to create music through movement, improvisation, composition and performance on voice and instruments.

Students will rehearse and perform as a large ensemble through choir and learn to read from an octavo score. They will apply the concepts they have been taught throughout elementary school and further their musical vocabulary of form, rhythm and expression.

Musical Objectives (as per the New York State Music Standards)

- **Creating.**
 - Students improvise vocally and with instruments.
 - Students create and play rhythm patterns, melodies, new verses and accompaniments for songs.
- **Performing.**
 - Students sing, move and play instruments as an ensemble and independently.
 - Students describe and demonstrate good performance and concert etiquette.
- **Responding.**
 - Students write or show with movement how music makes them feel.
 - Students listen to music, sing songs and share what the songs are about.
 - Students use music vocabulary corresponding to the music elements and concepts they discuss in class.
- **Connecting.**
 - Students listen to music, sing songs and share what they are about.
 - Students will reflect upon performance and create new goals.

[New York State Music Standards](#)

Computer and Technology



The elementary computer curriculum emphasizes a hands-on approach for developing computer fluency and digital literacy. Students in kindergarten through fifth grade have access to computer technology through computer instruction. All students have access to 1:1 Chromebooks. All classrooms are equipped with document cameras and a large-screen interactive display for demonstrations. Various educational software titles are available to students in addition to filtered internet access throughout the school building. Students must understand and know how to use digital technologies to lead productive and successful lives upon graduation. Technology knowledge and skills are vital for full participation in 21st-century life, work and citizenship.

Every student will know how to live productively and safely in a technology-dominated world. This includes understanding the essential features of digital technologies, why and how they work, and how to communicate and create using those technologies. Herricks has adopted the NYS K-12 Computer Science and Digital Fluency Standards. They are organized into five concepts:

- **Impacts of Computing.**
 - Understand the evolving impact of computers on society.
- **Computational Thinking.**
 - Create meaningful and efficient solutions, often in collaboration.
- **Networks and Systems Design.**
 - Understand hardware, software, networks and the internet.
- **Cybersecurity.**
 - Assess risks, build safeguards and respond to security breaches.
- **Digital Literacy.**
 - Create, communicate and have a positive digital footprint.

Each of these concepts is covered in the fifth grade at an age-appropriate level.

As a sample, as part of the Computer Science and Digital Fluency Standards regarding Impacts of Computing, Grades 4-6:

"4-6.IC.1 Describe computing technologies that have changed the world, and express how those technologies influence, and are influenced by, cultural practices. (The focus should be on how computing technologies both influence and are influenced by society and culture.)"

The curriculum is aligned to the new standards and the intention is to follow and implement the newly adopted mandate. For more information, please see the link below for drilled-down and grade-specific information.

[New York State Computer Science and Digital Fluency Learning Standards](http://www.nysed.gov/curriculum-instruction/computer-science-and-digital-fluency-learning-standards)

(<http://www.nysed.gov/curriculum-instruction/computer-science-and-digital-fluency-learning-standards>)

Language Immersion Program



Students who enter the Dual Language Immersion Program (DLIP) begin their day in English or Spanish then switch classrooms to receive instruction in the other language. While students are with their Spanish immersion teacher, they receive instruction in mathematics and science entirely in Spanish. English language arts instruction is delivered in English to ensure a high level of English literacy. Instruction in specials such as music, art, library and physical education is also delivered in English. Who delivers the content of the social studies block is decided by the grade-level English teacher and Spanish immersion teacher.

The DLIP is open to all district residents, but is housed at Denton Avenue Elementary School. It follows the same curriculum and uses the same materials as the traditional program. State and national assessments are in English.

[Herricks Dual Language Immersion Program](#)

English as a New Language



English as a New Language (ENL) teachers work with English Language Learners (ELLs) to make content comprehensible at the student's current level of English proficiency. Some classes are co-taught with content area teachers. This approach is beneficial to all students, ELLs and native English speakers. ELLs also learn in a stand-alone setting for more targeted support.

Whether classes are co-taught or stand-alone is determined at each building to best meet the needs of ELLs based on their level of English proficiency.

[Herricks English as a New Language Program](#)



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