

ELEMENTARY CURRICULUM HANDBOOK

www.herricks.org



GRADE
4



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 fourth grade will experience a balance of literature and informational texts in the context of instruction designed to create opportunities for children to engage in a variety of topics and texts. Discussion about texts will support language development and knowledge building. Students will learn to read as researchers 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, fourth grade students will read and comprehend literary and informational texts that are at or above grade level. As in the early grades, there will be a distinction between the complexity of the texts used for children to work on their word reading fluency and 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 fourth grade students will develop their writing skills through the writing process with a variety of texts. They will work independently and collaboratively with adults and peers 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. They will write for multiple purposes (to entertain, to explain and to persuade) and learn how 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, fourth graders should be clear on the distinction between conversational and academic language and their purposes and use. 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 specific 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 fourth grade is built around three domains.

In the **Number and Operations in Base 10** domain, students:

- Generalize their understanding of place value to 1,000,000, understanding the relative sizes of numbers in each place.
- Apply their understanding of models for multiplication (equal-sized groups, arrays, area models), place value, and properties of operations as they develop, discuss and use efficient, accurate and generalizable methods to compute products of multidigit whole numbers.
- Select and accurately apply appropriate methods to estimate or mentally calculate products, depending on the numbers and the context.
- Develop fluency with efficient procedures for multiplying whole numbers; understand and explain why the procedures work based on place value and properties of operations; and use them to solve problems.
- Apply their understanding of models for division, place value, properties of operations, and the relationship of division to multiplication as they develop, discuss and use efficient, accurate and generalizable procedures to find quotients involving multidigit dividends.
- Select and accurately apply appropriate methods to estimate and mentally calculate quotients and interpret remainders based upon the context.

In the **Numbers and Operations – Fractions** domains, students:

- Develop understanding of fraction equivalence and operations with fractions.
- Recognize that two different fractions can be equal and develop methods for generating and recognizing equivalent fractions.
- Extend previous understandings about how fractions are built from unit fractions, composing fractions from unit fractions, decomposing fractions into unit fractions, and using the meaning of fractions and the meaning of multiplication to multiply a fraction by a whole number.

In the **Geometry** domain, students:

- Deepen their understanding of properties of two-dimensional shapes (e.g., angles, parallelism and symmetry).

[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.

Fourth grade social studies is focused on **New York State and local communities** and their change over time, incorporating the study of geography, history, economics and government.

The course spans the state's history from before the European colonial era to the modern period with an emphasis on government, western movement and industrialization in New York State. Teachers help students make connections between past events and present-day New York State and the local community throughout the course.

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

Science



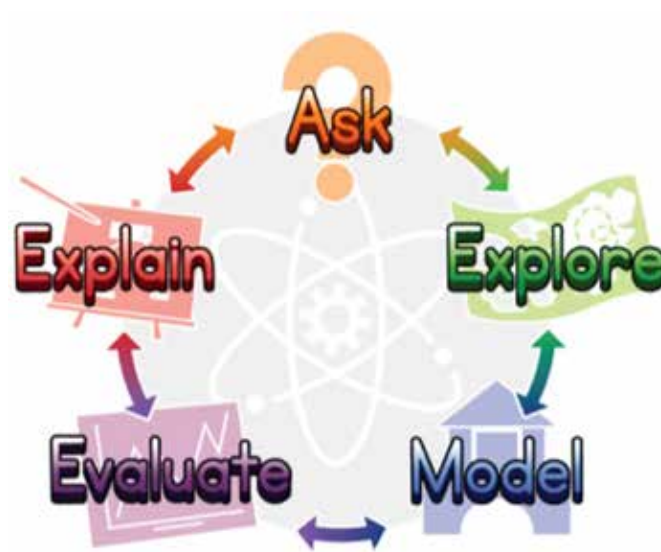
In Herricks, we provide students with an Activity, Project, Problem-Based (APB) instructional approach for science. The APB approach engages students in active development of knowledge and skills that are then transferred as they solve open-ended problems. In addition to content knowledge, students are 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 **fourth grade**, the curriculum focuses on:

Physical Science/Elementary Enrichment Unit:* Project Lead the Way (PLTW) **Energy Collisions**.

- Students make observations to provide evidence that energy can be transferred from place to place by sound, light, heat and electric currents.

Physical Science: Waves and Information.

- Students develop a model of waves to describe patterns in terms of amplitude and wavelength and that waves can cause objects to move.

Earth and Space Science: Processes that Shape the Earth.

- Students make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind and/or vegetation.

From Molecules to Organisms: PLTW Organisms: Structure and Function.

- Students construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior and reproduction.

*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.**
 - Safety hazards; making safe decisions; internet safety.
- **Nutrition.**
 - Digestion; calories; energy and nutrients; eating disorders.
- **Functions of the Body.**
 - Teeth and dental care; function and care of the ears.
- **Growth and Development and the Cycle of Family Life.**
 - Managing strong emotions; practicing good personal hygiene.
- **Disease and Illness Prevention.**
 - Hygiene routines for illness prevention; effects of HIV on immunity.
- **Substance Abuse Prevention.**
 - Physical/psychological addiction; influence of advertising.
- **Community Health and Safety.**
 - Personal goals for community safety; resolving conflicts peacefully.
- **Self-Worth, Mental and Emotional Health.**
 - Social, emotional learning skills; making healthful decisions.
- **Environmental and Consumer Health.**
 - Advocating for personal, family and community health.
- **Physical Fitness.**
 - Setting goals for exercise and fitness; self-worth, stress reduction.

[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.

Fourth grade students are more aware of their interests in physical education and the different levels of competitiveness. Friendship becomes important as well as a sense of fairness. Fourth grade is a time when students demonstrate locomotor, nonlocomotor and manipulative skills across varying physical activities. They identify emerging forms of simple strategies and communication skills in small-sided games. Students link the components of health-related fitness with the understanding of how health-enhancing behaviors influence overall wellness. This understanding is evident when they locate and use personal 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



In fourth grade working from life will be emphasized using contour lines, gesture and value changes. The study of color theory will be expanded, enabling students to mix paints and achieve a wide range of values. By fourth grade, technology is a 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. 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 and refine skills with tools and supplies.
 - Students consistently use and explore elements and principles of design.
 - Students develop self-directed problem-solving skills.
- **Performing.**
 - Students analyze various environments of presentation for art.
 - Students compare and contrast various art museums, art galleries and art venues.
- **Responding.**
 - Students respond with increased personal associations and personal aesthetics.
 - Students identify messages communicated by images.
 - Students respond to set criteria with personal observations.
 - Students interpret mood in artwork by analyzing subject matter and characteristics of form and use of media.
 - Students apply one set of criteria to evaluate more than one work of art.
- **Connecting.**
 - Students connect projects and link concepts to personal, cultural and historical influences.
 - Students brainstorm ideas, experiment with simple items and evaluate the end result.

[New York State Art Standards](#)

Music



Concepts introduced in earlier grades are further developed in fourth grade music. Students will read and write using both solfège syllables and the musical alphabet. They will sing, move and play Orff instruments, such as the xylophone and glockenspiel, in addition to other instruments.

Students will also be able to improvise and create their own musical expressions, such as rhythmic and melodic ostinato. Complex musical forms will be explored, and students will begin to identify and perform musical expressions.

Students will be introduced to performance through chorus. They will develop skills to rehearse and prepare music for concerts. While reading music from an octavo score, students learn to apply the concepts they have been taught throughout elementary school and further their musical vocabulary.

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 tell or show with movement how music makes them feel.
 - Students learn and use simple music vocabulary corresponding to the music elements and concepts covered 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 fourth 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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