

Health Dynamics

- Demonstrate developmentally appropriate competence (basic skills, strategies, and rules) in many movement and motor skills, such as team sports, individual sports, and outdoor activities.
- Demonstrate exercises in strength training, cardiovascular activities, and flexibility training.
- Meet developmentally appropriate health related fitness benchmarks.
- Describe the physiology of the heart and lungs and their relationship to physical activities and cardiovascular diseases.
- Develop alternative activities to prevent the use of alcohol, drugs, and tobacco products.

Electives

In addition to art, music, and health dynamics, the following unified arts are part of the 9th grade curriculum:

- Technology
- Drama
- Stage Craft
- Chorus
- Industrial Arts
- Forensic Investigations
- Financial Literacy
- Community Service
- Consumer Law
- History of Lynn
- Street Law
- Sociology/ Psychology
- Microeconomics
- ROTC (at LEHS only)

Placement

All students should be in a program that is realistically challenging. Students who have ability but have failed to demonstrate that ability should be placed at a level at which they will be significantly challenged.

Curriculum Team Vision

All teachers will plan for all instruction using the Massachusetts Curriculum Frameworks, aligned to the Common Core, and craft powerful learning experiences for students.

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The Lynn Public Schools



***Excellence and Innovation
in Education***



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**LYNN PUBLIC
SCHOOLS**

***Ninth Grade
Curriculum
Guide***

English Language Arts

Reading Literature & Informational texts

- Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
- Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.
- Analyze how complex characters (e.g., those with multiple or conflicting motivations) develop over the course of a text, interact with other characters, and advance the plot or develop the theme.
- Determine the meaning of words and phrases as they are used in the text.
- Analyze how an author's choices concerning how to structure a text, order events within it (e.g., parallel plots), and manipulate time (e.g., pacing, flashbacks) create such effects as mystery, tension, or surprise.
- Analyze a particular point of view or cultural experience reflected in a work of literature from outside the United States, drawing on a wide reading of world literature.
- Determine author's point of view or purpose in a text and analyze how an author uses rhetoric to advance that point of view.
- Analyze the representation of a subject or a key scene in two different artistic mediums, including what is emphasized or absent in each treatment.
- Relate a work of fiction, poetry, or drama to the seminal ideas of its time.
- Analyze how an author draws on and transforms source material in a specific work.
- Delineate and evaluate the argument and specific claims in a text.
- Analyze seminal US documents of historical and literary significance.
- By the end of grade 9, read and comprehend nonfiction, literature, including stories, dramas, and poems, in the grades 9–10 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Writing

- Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
- Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.

English Language Arts

- Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.
- Demonstrate understanding of the concept of point of view by writing short narratives, poems, essays, speeches, or reflections from one's own or a particular character's point of view.
- Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.
- Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.
- Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
- Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.
- Draw evidence from literary or informational texts to support analysis, reflection, and research.
- Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

Speaking and Listening

- Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grades 9–10 topics, texts, and issues*, building on others' ideas and expressing his or her own clearly and persuasively.
- Integrate multiple sources of information presented in diverse media or formats (e.g., visually, quantitatively, orally) evaluating the credibility and accuracy of each source.

English Language Arts

- Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, identifying any fallacious reasoning or exaggerated or distorted evidence.
- Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.
- Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.
- Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate

Language

- Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
- Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 9–10 reading and content*, choosing flexibly from a range of strategies.
- Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
- Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Mathematics

Algebra I:

Seeing Structure in Expressions

- Interpret the structure of expressions.
- Write expressions in equivalent forms to solve problems. Arithmetic with Polynomials and Rational Expressions
- Perform arithmetic operations on polynomials.

Creating Equations

- Create equations that describe numbers or relationships. Reasoning with Equations and Inequalities
- Understand solving equations as a process of reasoning and explain the reasoning.
- Solve equations and inequalities in one variable.
- Solve systems of equations.
- Represent and solve equations and inequalities graphically.

Functions

Interpreting Functions

- Understand the concept of a function and use function notation.
- Interpret functions that arise in applications in terms of the context.
- Analyze functions using different representations.

Building Functions

- Build a function that models a relationship between two quantities.
- Build new functions from existing functions.

Linear, Quadratic, and Exponential Models

- Construct and compare linear, quadratic, and exponential models and solve problems.
- Interpret expressions for functions in terms of the situation they model.

Statistics and Probability

Interpreting Categorical and Quantitative Data

- Summarize, represent, and interpret data on a single count or measurement variable.
- Summarize, represent, and interpret data on two categorical and quantitative variables.
- Interpret linear models.

Number and Quantity

Quantities

- Reason quantitatively and use units to solve problems.

Mathematics

Geometry:

Congruence

- Experiment with transformations in the plane.
- Understand congruence in terms of rigid motions.
- Prove geometric theorems.
- Make geometric constructions. Similarity, Right Triangles, and Trigonometry
- Understand similarity in terms of similarity in terms of similarity transformations.
- Prove theorems involving similarity.
- Define trigonometric ratios and solve problems involving right triangles.
- Apply trigonometry to general triangles.

Circles

- Understand and apply theorems about circles.
- Find arc lengths and area of sectors of circles. Expressing Geometric Properties with Equations
- Translate between the geometric description and the equation for a conic section.
- Use coordinates to prove simple geometric theorems algebraically.

Geometric Measurement and Dimension

- Explain volume formulas and use them to solve problems.
- Visualize relationships between two-dimensional and three-dimensional objects.

Modeling with Geometry

- Apply geometric concepts in modeling situations. Statistics and Probability
- Conditional Probability and the Rules of Probability
- Understand independence and conditional probability and use them to interpret data.
- Use the rules of probability to compute probabilities of compound events in a uniform probability model.

Using Probability to Make Decisions

- Use probability to evaluate outcomes of decisions.

Foreign Language

The Foreign Language Department offers from grades 7 through 12, five years of Spanish and French, in both regular, honors and advanced level classes, and 4 years of Latin. By using a coordinated program of books, tapes, visuals, and tests, modern language students learn the four skills of reading, writing, speaking, and listening, and also become acquainted with the culture and civilization of the countries that use the language. Latin students learn to read the language so that they may appreciate ancient literature and language. By studying mythology, classical civilization, and the relationship of Latin to English and many other modern languages, Latin serves as a background subject for many different areas.

Science

Biology I/Honors Biology:

This course includes the introduction to:

- The Chemistry of life: Chemical Elements form organic molecules that interact to perform the basic functions of life
- Cell Biology: Cells have specific structures and functions that make them distinctive.
- Genetics: Genes allow for the storage and transmission of genetic information
- Anatomy and physiology: There is a relationship between the organization of cells into tissues and the organization of tissues into organs.
- Evolution and Biodiversity: Evolution is the result of genetic changes that occur in constantly changing environments.
- Ecology: Ecology is the interaction among organisms and between organisms and their environment

**It is important to note that students may take different math courses in a given year depending on previous courses taken, grades received, college/career plans, and/or interest.*

Literacy in Science, Social Studies, and Technical Subjects

Reading Standards

- Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.
- Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.
- Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.
- Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to *grades 9–10 texts and topics*.
- Analyze the structure of the relationships among concepts in a text, including relationships among key terms.
- Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, defining the question the author seeks to address.
- Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words.
- Assess the extent to which the reasoning and evidence in a text support the author's claim or a recommendation for solving a scientific or technical problem.
- Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support or contradict previous explanations or accounts.
- By the end of grade 10, read and comprehend science/technical texts in the grades 9–10 text complexity band independently and proficiently.

Literacy in Science, Social Studies and Technical Subjects

Writing Standards

- Write arguments focused on *discipline-specific content*.
- Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.
- Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.
- Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.
- Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
- Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.
- Draw evidence from informational texts to support analysis, reflection, and research.
- Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Social Studies

World History II:

The Rise of the Nation State to the Present

Students study the rise of the nation state in Europe, the French Revolution, and the economic and political roots of the modern world. They study the origins and consequences of the Industrial Revolution, 19th century political reform in Western Europe, and imperialism in Africa, Asia, and South America. They will explain the causes and consequences of the great military and economic events of the past century, including World War I, the Great Depression, World War II, the Cold War, and the Russian and Chinese revolutions. Finally, students will study the rise of nationalism and the continuing persistence of political, ethnic, and religious conflict in many parts of the world.