

Introduction

We are pleased to provide this overview of the eighth grade academic program at Lexis Prep. Our carefully developed curriculum provides Lexis Prep students with a strong college-prep education in the setting of personalized instruction.

The following guide gives an overall picture of what a Lexis Prep student will learn in eighth grade. The individual learner and classroom needs will determine how the guide is implemented in the classroom.

English Language Arts and Reading



The Middle School English Language Arts and Reading curriculum at Lexis Prep is built on the *Holt McDougal Elements of Language* and *Elements of Literature* programs. These engaging and rigorous programs include reading and writing instruction based on the research of Dr. Kyleene Beers, Professor of Reading at the University of Houston and Past President of National Council of Teachers of English (NCTE).

The program's chosen literature pieces were developed to motivate students to become self-directed critical thinkers, collaborators, and effective communicators. A critical part of this program is the before, during, and after reading strategies designed to facilitate each student's comprehension of literature. The curriculum also includes a core component of integrated support for struggling readers and writers. The importance of technology integration is evidenced by the wide availability and access to online resources and program pieces.

The language arts curriculum includes research-based skills and strategies in grammar (*Warriner Handbook*), language usage, and writing mechanics. These traditional methods incrementally teach parts of speech, which help students understand the intricacies, oddities, dynamic components and rules of the English language.

Coordinated with the language components is a series of classic literature studies called *McDougal Littell Literature Connections*. This series includes classic and contemporary titles that are read, studied and discussed in a nurturing setting with the classroom teacher. We encourage our students to analyze and distinguish between opinion and fact, as well as to be able to critically analyze an author's style, point of view, and influence. At Lexis Prep, we strive to nurture inspired human beings for whom a love of literature and critical thinking is essential.



Listed below are the standards which are met with the use of the Lexis Prep middle school curriculum. These standards include: Literature, Informational Text, Language, Speaking and Listening, and Writing. They offer a focus for instructional practices and strategies, help ensure students gain adequate exposure to a range of tasks, and are rigor infused throughout the requirements.

National Standards Correlation

Reading Standards for Literature

Key Ideas and Details

- Cite several sources of textual evidence to support analysis of text explicitly and with use of inferences
- Analyze how recurring images or events contribute to the development of a theme or central idea
- Analyze how elements of a story or drama interact

Craft and Structure

- Explain the comparisons an author makes through metaphors, allusions, or analogies in a text
- Compare a poem with a conventional structure, such as a sonnet
- Explain perspective or knowledge of characters and audience when producing suspense or humor

Integration of Knowledge and Ideas

- Analyze whether a filmed or live production of a drama or story stays faithful to or departs from script or text
- Compare a fictional portrayal of a time, place, or character to historical sources from same period

Range and Level of Text Complexity

- Read independently, proficiently, and fluently literature appropriately complex for sixth through eighth grade

Reading Standards for Informational Text

Key Ideas and Details

- Cite several sources of textual evidence to support analysis of text explicitly and with use of inferences
- Provide an objective summary of a text, accurately conveying an author's view and specific points
- Analyze how an author introduces, illustrates, and elaborates two or more significant ideas in a text

Craft and Structure

- Explain the comparisons an author makes through metaphors, allusions, and analogies in a text
- Analyze in detail the structure of a specific paragraph in a text
- Compare and contrast the points of view and purposes of two authors writing about the same topic

Integration of Knowledge and Ideas

- Evaluate the advantages and disadvantages of using different medium to present a particular topic
- Evaluate an argument's claims and reasoning to the degree of which evidence supports each claim
- Compare/contrast two or more authors writing about the same topic when preparing presentations

Range and Level of Complexity

- Read independently, proficiently, and fluently informational text appropriately complex for sixth through eighth grade

Writing Standards

Text Types and Purposes

- Introduce topic, distinguish opposing claims with support, reasoning, and closure for the argument

- Write informative/explanatory texts that introduce, develop, use specific language and provide closure
- Write narratives to establish context, point of view, key elements, word choice and conclusion

Production and Distribution of Writing

- Produce writing with organization, development, substance, style, purpose and audience
- Write using planning, revising, editing, rewriting, or trying a new approach
- Use technology to present and cite information when publishing and responding to writing

Research to Build Knowledge

- Perform short, focused research projects in response to a question
- Gather relevant information from multiple print and digital sources using advanced features
- Write in response to literary or informational sources with evidence support, analysis and reflection

Range of Writing

- Write routinely over extended time frames for a range of tasks, purposes, and audiences

Speaking and Listening Standards

Comprehension and Collaboration

- Initiate and engage in group discussions on eighth grade topics, texts, and issues studied in class
- Determine purpose of and perspectives represented in oral, visual, or multimodal formats
- Assess the truth of a speaker's or presenter's premises and the validity of his or her conclusions

Presentation of Knowledge and Ideas

- Present claims and findings with relevant evidence that is accessible and verifiable to listeners
- Incorporate digital media and visual displays of data that strengthen the presentation
- Adapt speech to a variety of contexts and communicative tasks

Language Standards

Conventions in Writing and Speaking

- Observe conventions of grammar and usage
- Observe conventions of capitalization, punctuation, and spelling
- Make effective language choices

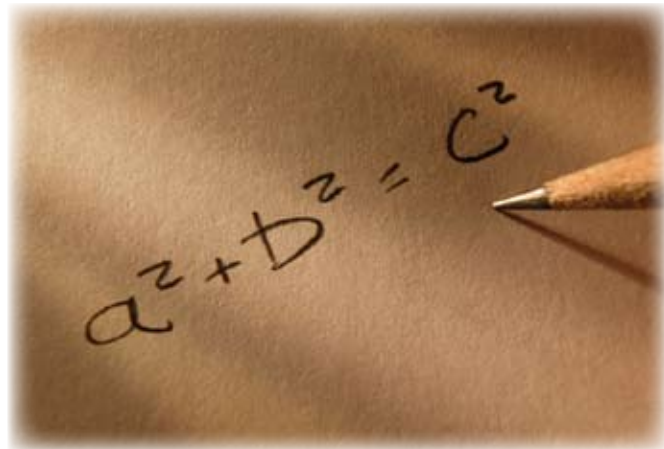
Vocabulary Acquisition and Use

- Determine word meanings based on eighth grade reading
- Understand word relationships
- Use grade-appropriate academic vocabulary and English language arts-specific words and phrases



Mathematics

The goal of the Lexis Prep 5-8 mathematics program is for our students to develop the ability to think and reason mathematically and use mathematics to solve problems in authentic contexts. The expectation is that they will achieve mathematical proficiency through the mastery of mathematic skills, concepts, and processes. This goal is met through the opportunity to develop, practice and review concepts over time. Lexis Prep students move from the concrete to the pictorial to the abstract through a deliberate sequence of instruction. Our students' regular exposure to critical thinking and problem solving prepares them for real world applications.



The Lexis Prep mathematics curriculum is aligned with both the National Council for Teaching Mathematics (NCTM) Standards and Benchmarks as well as Saxon Math. The standards outlined below show the general progression of topics over the course of the school year. Parents can be confident their child will receive thorough mathematics instruction.

Lexis Prep Math Standards Correlated with NCTM Standards and Saxon Math

Algebra

- Analyze, represent, and solve systems of linear functions and equations
- Use linear functions, equations, and systems to represent, analyze, and solve problems
- Recognize proportion as a special case of linear equation and the constant of proportionality is slope
- Understand that slope (m) of a line is a constant rate of change
- Translate verbal, tabular, graphical, and algebraic representation of functions
- Describe aspects of a function as slope and y-intercept appear in different representations
- Solve systems of two linear equations in two variables
- Relate systems to pairs of lines that intersect, are parallel, or are the same line, in a plane
- Use linear equations, systems, functions and slope of a line to analyze and solve problems

Geometry and Measurement

- Analyze two- and three-dimensional space and figures by using distance and angle
- Use fundamental facts about distance and angles to analyze two- and three-dimensional space
- Prove that particular configurations of lines give rise to similar triangles because of congruency
- Apply reasoning about similar triangles to solving problems including heights and distances
- Use facts about angles created when a transversal cuts parallel lines
- Explain why the Pythagorean theorem is valid by using a variety of methods
- Apply Pythagorean theorem to find distances between points in Cartesian coordinate plane

Data Analysis and Number and Operations and Algebra

- Analyze and summarize data sets
- Use mean, median, and range to summarize and compare data sets

- Organize and display data to pose and answer questions
- Investigate different effects caused by changes in data values using mean and median
- Understand measure of center alone does not describe a data set
- Select the mean or the median as the appropriate of center for a given purpose

Algebra

- Use nonlinear functions; contrast rates of change with constant rate of change of linear functions
- View patterns or problems as linear functions whose inputs are counting numbers
- Apply linear functions to solve problems involving rates such as motion at a constant speed

Geometry

- Understand when given a line in a coordinate plane all “slope triangles” are similar
- Understand the relationship of these similar triangles to the constant slope of a line

Data Analysis

- Organize and display data to pose and answer questions
- Determine the 25th and 75th percentiles to obtain information about the spread of data
- Use box-and-whisker plots to convey the information
- Make scatter-plots to display bi-variate data; informally estimate lines of best fit to test conjectures

Number and Operations

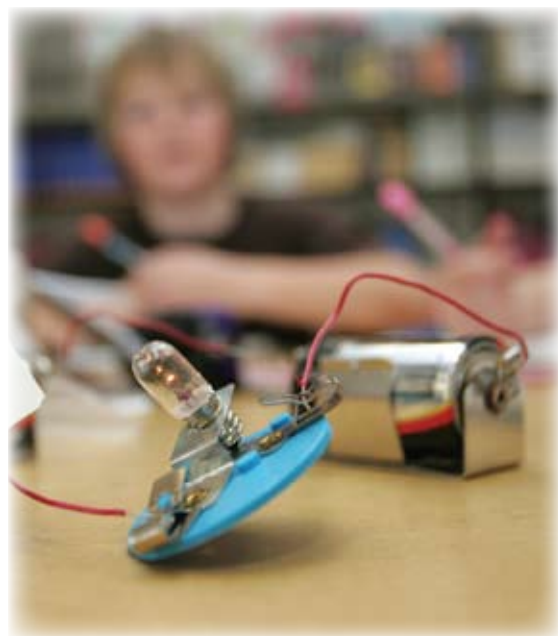
- Use exponents and scientific notation to describe very large and very small numbers
- Use square roots when applying the Pythagorean theorem

Science

The Lexis Prep science program provides students with opportunities to think and act like scientists. Lexis Prep students acquire scientific knowledge, practice science process skills, and apply science concepts through reading and observing, as well as by conducting investigations that have real-world applications.

Eighth grade science is organized into three disciplines: life science, physical science, and science and technology. All science outcomes are aligned to the National Science Education (NSE) Standards.

Lexis Prep utilizes Delta Education which provides a kit-based curriculum and instructional resources that correlate with state standards. Delta Education provides the expertise to ensure the best combination of materials are selected for each grade level in order to align the Lexis Prep curriculum with the science concepts, inquiry nature, and developmental appropriateness reflected in the state standards.



Lexis Prep Science Standards Correlated with NSE and Delta Education

Unit 1: Matter and Change

Activity sheets become lab reports as young chemists hypothesize, test, record, and draw conclusions about the nature of matter in **Matter and Change**. In this chemistry primer, students calculate liquid densities and apply filtration and evaporation to suspensions and solutions. They measure gas volumes and pressures to demonstrate Boyle's law. They investigate atomic structure and learn to read the Periodic Table. With three-dimensional models and corresponding chemical equations, students explore the covalent and ionic molecular bonds of compounds, including double bonds of fats. Then, they conduct three experiments: a neutralization reaction between bases and acids, an oxidation reaction that produces rust, and a double replacement reaction to form a precipitate.

Unit 2: DNA from Genes to Proteins

Modeling activities combine with microslide images to help students decipher the codes of life in **DNA from Genes to Proteins**. Students trace the characteristics of their own features to proteins, and then even further to the genetic material inside the nucleus in every cell in their bodies. Students identify cell structures and functions, as well as the chromosomes and genes that determine unique traits. Using base-pair models of double-helix DNA molecules, they explore DNA replication and DNA transcription to messenger RNA. Students investigate how and where mutations can occur and compare human cells to bacteria and virus cells. Then, the perspective changes, and students consider some cutting-edge applications of biotechnology: genetic engineering, DNA fingerprinting, and the Human Genome Project.

Unit 3: Electrical Connections

After detecting static charges with electroscopes, students differentiate between static and current electricity. The rest of the **Electrical Connections** unit focuses on the transfer of electrical energy by electric current. Students build, operate, and analyze circuits, becoming skilled in assembling bulbs, batteries, wires, and switches. They explore the concepts of energy sources, receivers, and converters. Student-built galvanometers detect the presence, direction, comparative amount, and conservation of current in series and parallel circuits. Students also experiment with factors, like resistance, that influence current, and convert electrical to kinetic energy to operate a motor. The final current activities focus on three-way and dimmer switches.

Unit 4: Newton's Toy Box

In **Newton's Toy Box**, students experiment freely with familiar toys and objects. As they explain their observations, they prove Newton's three laws of motion. The path of a tossed basketball, the flip of a grasshopper toy, and the endless swing of clackers reinforce the concepts of inertia, gravity, acceleration, mass, force, and momentum. Students engage in races, games, and challenges that emphasize the laws of motion that govern everyday tasks and cosmic interactions. The kit includes a video of real astronauts in space using some of the same toys. Students use the video to compare the behavior of the toys on Earth with their behavior in a microgravity environment. By dealing with scaled-down applications, middle school students master these laws and the vocabulary of physics with confidence.

Social Studies

Lexis Prep students enjoy *The United States through Industrialization and Geography Regions and People*, the TCI *History Alive!* curriculum for eighth grade. *History Alive!* consists of a series of instructional practices that allow students of all abilities to master key social studies concepts. The approach is characterized by eight features consisting of: theory and research based active instruction, standards based content, preview assignments, multiple intelligences teaching, considerate text, graphically organized reading notes, processing assignment, and assessments to inform instruction.

The National Council for the Social Studies (NCSS) has organized grade level content into Ten Thematic Units of Instruction that form the framework of the social studies standards. All ten themes are found at each grade level of *History Alive!* with specific themes enhanced at different grade levels. The focal themes in eighth grade are bolded below.



- **Culture**
- **Time, continuity, and change**
- **People, places, and environments**
- Individual development and identity
- Individuals, groups and institutions
- **Power, authority, and governance**
- Production, distribution, and consumption
- Science, technology and society
- Global connections
- Civic ideals and practices

The Lexis Prep social studies curriculum is content and benchmark aligned with the NCSS thematic units. Where objectives overlap with other grade levels, the objectives are met using different age-appropriate content and activities at each grade level.

Lexis Prep Social Studies Standards Correlated with NCSS and *History Alive!*

The United States through Industrialization and Geography Regions and People

Unit: Our Colonial Heritage

- The First Americans
- European Exploration and Settlement
- The English Colonies in America
- Life in the Colonies

Unit: Revolution in the Colonies

- Toward Independence
- The Declaration of Independence
- The American Revolution

Unit: Forming a New Nation

- Creating the Constitution
- The Constitution: A More Perfect Union
- The Bill of Rights

Unit: Launching the New Republic

- Political Developments in the Early Republic
- Foreign Affairs in the Young Nation
- A Growing Sense of Nationhood
- Andrew Jackson and the Growth of American Democracy

Unit: An Expanding Nation

- Manifest Destiny and the Growing Nation
- Life in the West
- Mexicano Contributions to the Southwest

Unit: Americans in the Mid-1800s

- An Era of Reform
- The Worlds of North and South
- African-Americans in the Mid-1800s

Unit: The Union Challenged

- A Dividing Nation
- The Civil War
- The Reconstruction Era

Unit: Migration and Industry

- Tensions in the West
- The Rise of Industry
- The Great Wave of Immigration

Unit: A Modern Nation Emerges

- The Progressive Era
- The United States Becomes a World Power
- Linking Past to Present

National Standards for Arts Education

The National Standards for Arts Education were developed by the Consortium of National Arts Education Associations. They describe the learning outcomes recommended as an integral part of a comprehensive K-12 education for all American students. The content standards for 5-8 visual arts education include:



- Understand and apply media, techniques and processes
- Use knowledge of structure and functions
- Choose and evaluate a range of subject matter, symbols, and ideas
- Understand the visual arts in relation to history and cultures
- Reflect upon and assess the characteristics and merits of their work and the work of others
- Make connections between visual arts and other disciplines

National Standards for Music Education

The National Standards for Arts Education were developed by the Consortium of National Arts Education Associations. They describe the learning outcomes recommended as an integral part of a comprehensive K-12 education for all American students. The content standards for 5-8 music education include:

- Sing, alone and with others, a varied repertoire of music
- Perform on instruments, alone and with others, a varied repertoire of music
- Improvise melodies, variations, and accompaniments
- Compose and arrange music within specified guidelines
- Read and notate music
- Listen to, analyze and describe music
- Evaluate music and music performances
- Understand relationships between music, the other arts, and disciplines outside the arts
- Understand music in relation to history and culture



National Standards of Physical Education



The National Association for Sport and Physical Education (NASPE) defines five major focus areas specifying what a physically educated person is capable of performing. These focus areas are:

- Learn skills necessary to perform a variety of physical activities
- Be physically fit
- Participate regularly in physical activity
- Know the implications of and the benefits from involvement in physical activities
- Value physical activity and its contribution to a healthful lifestyle

The Difference Maker: Lexis Accent

Customizing is the Key to Success for Each Child

The hallmark of a Lexis Prep education is our personalized approach called Lexis Accent. We know some students need an extra emphasis in their academic program and Lexis Accent is our tool to do that. This customization may include special one-on-one and small group sessions during the school day. These specialized sessions give the Lexis Prep staff the opportunity to focus on the particular learning needs of every child.



Writing - Students receive extra support in the writing process from draft to final copy, including areas such as voice, style, conventions, and research skills.

Reading - A focused time spent on phonemic awareness, systematic phonics instruction, decoding, fluency, and comprehension.

Math - Students use manipulatives while receiving extra instruction in order to ensure mastery of all mathematics concepts.

Social Skills - Students learn practical strategies for developing appropriate friendships, understanding social nuances, and being comfortable in social situations.

As part of the enrollment process, your child will be evaluated to determine if he would benefit from personalized time in any of these areas. If so, it will be included as part of his education plan. There is no additional charge for these classes as we have found the Lexis Accent program is key to ensuring success in a college prep program.

Your child may also work with an Occupational Therapist, Speech Therapist, Physical Therapist, or Counselor at Lexis Prep. These are provided by a third party and there is an extra charge for these services.



Executive Function: Prepare for a Lifetime of Success

The ability to self-regulate is essential for success in life. At Lexis Prep, we call this executive function, a well-known concept that entails many different skills and abilities. Children with ADD or ADHD frequently struggle in this area so we put special emphasis on developing this skill in all our students.

According to Joyce Cooper-Kahn and Laurie Dietzel (*Late, Lost and Unprepared*), executive function can be defined as “a set of processes that all have to do with managing oneself and one’s resources in order to achieve a goal. It is an umbrella term for the neurologically-based skills involving mental control and self-regulation.” Skills and abilities that make up executive function include self-monitoring, planning, organization, emotional control, initiation, shifting, and working memory.

All Lexis Prep students spend time each day learning and practicing these critical executive function skills. Executive function is built into our curriculum and is also explicitly taught with the goal of helping every student effectively develop and utilize these important life skills.



10 Essential Elements of the Lexis Prep Success Model

UHA!

At Lexis Prep, our mission is summarized by UHA!: To Understand, Honor and Accommodate diverse learners and do it with a passion! Everything we do flows from the UHA! principles. This includes the 10 Essential Elements of the Lexis Prep Success Model.

1. A Customized Curriculum

Each child has a unique learning style. A child learns best when teaching is personalized to fit the way he learns, rather than forcing him to learn the way the school teaches. At Lexis Prep, every teacher strives to understand how your child learns best and to utilize that style in every teachable moment. Our Lexis Accent Program customizes the educational program further by strengthening those specific areas that need more attention.

2. High Academic Expectations

A Lexis Prep education is never watered down. It is a solid, age-appropriate, college preparatory experience that will prepare your child well for further studies. Our academics are research-based and multisensory.

3. Integrated Executive Function Skills

Executive function is the ability to plan and organize oneself to accomplish a goal. Your child will learn executive function skills in every aspect of his education to best prepare him for future education opportunities as well as life beyond school. It is the first thing we think about when we interact with a child and it is the last thing we teach at the end of every day.

4. Painless and Intelligent Homework

It is imperative that your child learn how to effectively manage homework before entering high school and college so we focus on developing these critical skills. Homework at Lexis Prep is individualized, manageable, and relevant. It is never busy work and should not be a source of frustration.

5. Passionate and Highly Qualified Teachers

Our teachers are passionate, experienced, and dynamic. Most of our teachers have specialized training, a masters degree or both. They receive regular training in order to continually develop their teaching and assessment skills.

6. Collaboration with Medical and Educational Providers

At Lexis Prep, we are part of a team working together to ensure your child's success. This includes coordination with other professionals, including physicians who are managing medication, psychologists and counselors, speech and language specialists, occupational therapists, and outside tutors.

7. Constant Evaluation of Academic Progress

Our teachers constantly evaluate each student's academic progress. This is done through daily assessments, anecdotal observations, and more formalized testing such as the NWEA MAP assessment given three times each year.

8. Manage the Environment, Not the Child

At Lexis Prep, we believe success is largely dependent on managing the environment. We emphasize routines and transitions throughout the day. When a difficulty arises, we analyze the antecedents in order to determine where changes might be needed.

9. Partner with Parents

A strong partnership with parents is critical to the success of each student. This partnership begins with the initial interview and continues with daily communications, a monthly open forum for all parents, and parents visiting the classroom.

10. We Make It Fun!

Learning should be enjoyable. Children who pursue education (rather than endure it) will be far more successful in the future. At Lexis Prep, we provide a great college prep education and enjoy ourselves every day in the process.