



# HEBREW ACADEMY

RABBI ALEXANDER S. GROSS

## Middle School Curriculum Sequence

### **Daily Morning Davening and Mincha**

Ashkenazic and Sefardic Minyans available.

### **Judaic Studies**

Dedicating fifty percent of the school day to Judaic Studies and utilizing curriculum guidelines set forth by our partners at the Lookstein Center at Bar Ilan University, students are provided with a wellspring of Judaic learning tying in use of the eternal laws of the Torah and Talmud with current events allowing students to develop philosophical and legal thought and the formulation of educated opinion. While instruction is an Ivrit b'Ivrit announcement, students are exposed to Ashkenazic and Sefardic pronunciations and traditions as well so they are able to appreciate davening in all Orthodox traditions.

While the curriculum outline for this subject area is currently being updated basic information about each course is as follows:

Chumash: text and project based with use of technology.

Talmud: ability leveled through the admissions placement exam and previous subject area success, text based with use of Gemarah Beruah software and technology.

Navi: largely in English with some textual requirements.

Halacha: largely in English with some textual requirements.

## Ivrit

התוכנית לעברית מבוססת על תוכנית נט"ע - נוער לטובת העברית. זו היא תוכנית רחבה ומדורגת ללימוד עברית בתפוצות בחטיבת הביניים ובתיכון. בכל נושא קיימים שלושה מימדים: מסורת יהודית, תרבות ישראלית מודרנית, וידע עולם כללי. הנושאים מגוונים, ממחשבים וספורט ועד חברות וחופש. כל יחידת לימוד משלבת אומנות, מוזיקה, שירה, ספרות, עיתונות, וטקסטים יהודיים ברבדים שונים של לשון – מעברית תנכית ועד מונחים מדעיים וסלנג.

בוגרי רמת הביניים יהיו מסוגלים להבין ולהשתתף בשיחות בעברית על נושאים שונים. (כ-20 משפטים למדבר)  
הם יוכלו לקרוא ולהבין טקסטים מגוונים בעברית, כתבות עיתונאיות בעברית קלה, ספורים קצרים מעובדים, מדרשים מקראיים, ופסוקים מן התנ"ך.  
התלמידים יוכלו להתבטא בכתב בסוגות כתיבה שונות, לנתח מאמרים, ולכתוב חיבור באורך של כ-15 משפטים.  
הם יהיו מסוגלים להבין כתבת חדשות קצרה מהטלוויזיה או הרדיו, שיחה, או שיר פשוט אחרי האזנה אחת.  
כל זה יעשה תוך כדי שילוב של כללי הדקדוק והתחביר:  
שימוש בהווה ובעבר בכל הבניינים ועתיד בבניינים: פעל, פיעל, הפעיל והתפעל בגזרת השלמים ובגזרת ל"ה, ע"ו בבניין פעל.  
נטיית מילות היחס השונות כמו בין, על, אל, אצל, בשביל וליד.  
שימוש במשפטי תנאי, ומשפטים הכוללים פסוקיות סיבה, תכלית, תוצאה, זמן ועוד.

The Middle School Hebrew Language Department bases its instruction on the NETA program which is an innovative Hebrew Language curriculum designed for students in grades 6-12. The NETA curriculum is linguistically sequential; texts and tasks increase in length and complexity as the student's Hebrew improves. Each theme is presented from three perspectives: Jewish tradition, modern Israeli culture and general world knowledge. Each unit of study incorporates art, music, prose, poetry, news articles and Jewish texts, in layers of language ranging from Biblical Hebrew to current scientific Hebrew terminology and common colloquialisms.

Students who complete this level will be able to understand and participate in conversation on any topic – at least 20 sentences per speaker. They will be able to read stories, news articles in journalistic style, poetry, Midrashim, or Biblical verses. The students will be able to write a personal or historical chronological report, theoretical analysis of reasons, results, and purposes of about 15 sentences in length. They will be able to listen to and understand a simple TV or radio news item, a dialogue in standard Hebrew, or a simple song based on a single hearing. The students will recognize and use the following structures: conjugations in present and past tense of all paradigms and in future tense of pa'al, pi'el, hiph'il, hitpa'el (shlemim); (ל"י ע"ו in pa'al); declension of different prepositions such as etzel, bishvil, l'yad, el, al, beyn and more; and formation of expressions and clauses of cause, time, purpose, result, comparison, contrast, concession, and condition.

## **Language Arts**

### **6<sup>th</sup> Grade Course Description**

This course includes literature, vocabulary, writing, and grammar. It builds on reading as an activity and expands the student's exposure to a variety of genres through characteristic analysis. Through this course, students establish the purpose for reading and apply new strategies to gain meaning from what they read. The focus (throughline) of this year is maturation and self awareness.

#### **Course Objectives**

After completing the course, students will be able to:

- 1) Analyze characteristics of various types of texts.
- 2) Draw on experience to bring meaning to words in context.
- 3) Write fluently at the 6th grade level with very few grammar or spelling errors.
- 4) Establish and adjust purpose for reading and use a variety of comprehension strategies to withdraw meaning from the text.
- 5) Speak fluently about the literature
- 6) Analyze literature to identify themes and characterization
- 7) Write in a variety of genres and for a variety of purposes.
- 8) Recognize and analyze the use of literary devices and identify literary elements.
- 9) Draw inferences, make generalizations and come to conclusions using cues from text.
- 10) Infer word meaning through the use of context clues, affixes, and other textual cues.
- 11) Communicate effectively both orally and in writing.
- 12) Defend ideas, conclusions, generalizations, and inferences through written communication.
- 13) Work collaboratively with a team to accomplish shared goals.

### **7<sup>th</sup> Grade Course Description**

Students will develop effective communication skills via activities designed to strengthen vocabulary, improve grammar, and reinforce reading comprehension through strategy instruction. Students will gain a greater appreciation for literature while recognizing the application of new life-skills through fun and engaging reading and writing activities. The focus (throughline) of this year is understanding conflict in the world around me.

#### **Course Objectives**

After completing this course, students will be able to:

- 1) Write with proficiency in a variety of genres and for a variety of purposes.
- 2) Write with control of grammar.
- 3) Revise and edit their writing to produce effective, persuasive work.
- 4) Use word attack strategies and reading comprehension skills across content areas and with a variety of genres and texts.
- 5) Recognize and analyze the use of literary devices and identify literary elements.
- 6) Identify the purpose of a text and its elements that help them read more effectively.

- 7) Draw inferences, make generalizations and come to conclusions using cues from text.
- 8) Infer word meaning through the use of context clues, affixes, and other textual cues.
- 9) Communicate effectively both orally and in writing.
- 10) Defend ideas, conclusions, generalizations, and inferences through written communication.
- 11) Work collaboratively with a team to accomplish shared goals.

### **8<sup>th</sup> Grade Course Description**

Students will learn to read critically with full comprehension across genres and be able to communicate through effective writing. As students develop critical reading and writing skills, they will make important life connections through the variety of material they study. All material will be connected to a universal theme (throughline) understanding my role and responsibility in the world around me.

### **Course Objectives**

After completing this course, students will be able to:

- 1) Read new and challenging texts with proficiency across genres
- 2) Understand and use the writing process for all writing tasks with ease (prewriting; drafting; revising; and editing)
- 3) Recognize and analyze the use of literary devices and identify literary elements
- 4) Conduct research using multiple resources to reinforce a thesis.
- 5) Master language usage and rules of grammar in writing.
- 6) Master language usage effective oral communication.
- 7) Identify a theme of a text and the author's purpose.
- 8) Determine a writing purpose, audience awareness, tone, and voice, through a variety of writing assignments
- 9) Infer word meaning through the use of reading strategies.
- 10) Defend ideas, conclusions, generalizations, and inferences.
- 11) Create a multimedia presentation and use a variety of electronic tools.
- 12) Work collaboratively with a team to accomplish shared goals.
- 13) Demonstrate a sense of social responsibility with regard to communication etiquette, research sources, and producing original work.

## **Social Studies**

### **6<sup>th</sup> Grade Course Description: World Geography**

In this course, students will expand their knowledge of the geography of the world and human interactions with the environment.

#### **Course Objectives**

After completing this course, students will be able to:

- 1) Examine and understand the systems of free enterprise, supply and demand, government regulation on a global and national scale.
- 2) Investigate regional industries and their contribution to a global marketplace.
- 3) Understand the basis on which maps, graphs and diagrams are created.
- 4) Use geographic tools such as thematic maps, graphs, charts, models, and databases to collect, analyze, interpret and present data.
- 5) Use geographic representations to display spatial information.
- 6) Understand absolute and relative location.
- 7) Describe the physical and human characteristics of places and regions.
- 8) Describe the physical processes that shape patterns of Earth's surface.
- 9) Understand the effects of the interaction between humans and the environment.
- 10) Compare types and uses of technology, past and present, by analyzing the effects of scientific discoveries and technological innovations.
- 11) Apply critical thinking skills to organize and use information acquired from a variety of sources including electronic technology.
- 12) Analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions.
- 13) Regions and places will be selected for study and can vary, but case studies from each continent will be included.
- 14) Selected case studies will be set within their regional context and exemplify important geographic concepts or problems.

### **7<sup>th</sup> Grade Course Description: World History**

Students expand their understanding of History, Civics and Government, Geography, Economics, Individuals, Society, and Culture by studying the people and events that occurred in the dawn of Western and non-Western ancient civilizations.

#### **Course Objectives**

After completing this course, students will be able to:

- 1) Describe the life of various civilizations.
- 2) Compare and contrast the ways of the ancient World to our World today.
- 3) Sequence, categorize, and identify cause and effect relationships of important events of Ancient times.

- 4) Explain how resources, belief systems, economic factors, and political decisions have affected different civilizations.
- 5) Understand, describe, and analyze the similarities and differences within and among cultures that includes the cultures' government, economy, education, and religion.
- 6) Identify examples of architecture, art, music, and literature of today that have transcending from ancient times.
- 7) Understand and describes how citizenship varies among different societies.
- 8) Create written and visual materials such as journals, reports, graphic organizers, outlines, and bibliographies.

### **8<sup>th</sup> Grade Course Description: American History**

Students build upon their concepts of Geography, Civics, and Political Societies from the 1500's up through contemporary American History. (Reconstruction)

#### **Course Objectives**

After completing this course, students will be able to:

- 1) Use geographic tools such as thematic and interactive maps, graphs, charts, models, and databases to collect, analyze, interpret and present data.
- 2) Apply, examine, and develop timelines and chronology by sequencing events, people, technology, time periods, and people.
- 3) Identify contributions of significant individuals including Samuel Adams, Benjamin Franklin, King George III, Martin Luther, George Washington, Thomas Jefferson, Thomas Paine, the Marquis de Lafayette, Jefferson Davis, Ulysses S. Grant, Robert E. Lee, Abraham Lincoln, Harriett Tubman, Martin Luther King
- 4) Identify points of view from the historical context surrounding an event and the frame of reference that influenced the participants.
- 5) Analyze political, economic, and social effects of war.
- 6) Consider the obligation of society to individuals and the obligations of citizens to society.
- 7) Organize and interpret information from outlines, reports, media, databases, and visuals including graphs and graphics, charts, timelines, and maps in order to apply generalizations about past, present, and future events in history from the 1500's to the Reconstruction.
- 8) Understand the effects of the interaction between humans and the environment.
- 9) Compare types and uses of technology, past and present by analyzing the effects of scientific discoveries and technological innovations.
- 10) Apply critical thinking skills to organize and use information acquired from a variety of sources including electronic technology.
- 11) Analyze information by sequencing, categorizing, identifying cause and effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions.
- 12) Evaluate documents such as the Mayflower Compact, the Treaty of Paris, Articles of Confederation, the Constitution of The United States of America, The Bill of Rights and The Emancipation Proclamation.

## **Science**

### **6<sup>th</sup> Grade Course Description: Environmental Science**

This science course will introduce students to a variety of science topics, skills and ideas. Students will explore several different scientific fields through research, experimentation, and interactive activities. Throughout the course, students will use the scientific method and understand that the scientific method applies to all scientific disciplines and endeavors.

#### **Course Objectives**

After completing this course, students will be able to:

- 1) Plan and implement an investigation using the scientific method.
- 2) Collect, display and interpret data from a scientific investigation.
- 3) Explain the origin and path of energy and its importance to all life on earth.
- 4) Understand that traits are inherited and that traits can change over time.
- 5) Understand that organisms respond to external stimuli and identify these responses.
- 6) Explain how living things respond to their environment and change over time.
- 7) Understand concepts of ecology, and define terms such as habitat, ecosystem, producer and consumer.
- 8) Know resources that we obtain from the Earth and the affects of human population on those resources.
- 9) Explain how air and water become polluted.
- 10) Describe what biodiversity is and why it is important to Earth.

### **7<sup>th</sup> Grade Course Description: Life Science**

This course will provide students with enlightenment and instruction on the nature of science, using a discovery process to teach the scientific method and the use of metric measurements in scientific investigations. It covers the science of Life.

#### **Course Objectives**

After completing this course, students will be able to:

- 1) Identify some common tools of scientific investigations and explain how to use them safely.
- 2) Know the systems of the human body and their functions.

To meet these focused objectives students participate in the following laboratory activities: pill bug experiments (MRS REN), plant portfolios, seed experiment, flower collage, cell collage, mitosis – DNA replication, human anatomy/physiology portfolio, cat dissection.

### **8<sup>th</sup> Grade Course Description: Physical Science**

This course provides a rigorous and comprehensive foundation for the 8th grade student

about to enter high school science. It covers the relevant topics in all the major scientific disciplines including Chemistry and Physics. The course builds on prior knowledge and expands on subjects introduced earlier in middle school, paving the way for future interest in the scientific disciplines.

### **Course Objectives**

After completing this course, students will be able to:

- 1) Identify and describe the relationship between force and motion.
- 2) Identify chemical and physical properties and classify matter based on these properties.
- 3) Understand and describe the relationship between matter and energy.
- 4) Explain how various Earth materials are formed and how the Earth changes over time through storms and other natural events such as volcanic eruptions.
- 5) Explain the concepts of force and motion and describe simple machines.
- 6) Explain and use the methods and tools of scientific inquiry, applying them across scientific disciplines.
- 7) Identify properties of an atom, element, compound, and mixture, and apply knowledge to use of formulas and equations.
- 8) Describe the concepts of friction, gravity, waves, and kinetic and potential energy.

## **Math**

### **6<sup>th</sup> Grade Regular Level Course Description**

This course builds upon the essential skills of arithmetic as they apply to problem solving, communication, making connections, and reasoning. 6<sup>th</sup> Grade Curriculum Focal Points include developing an understanding of fluency with multiplication and division of fractions and decimals, connecting ratio and rate to multiplication and division and writing, interpreting, and using mathematical expressions and equations.

#### **Course Objectives**

Students will demonstrate and be able to:

- 1) Competency in all operations with whole numbers, decimals and fractions.
- 2) Solve problems involving the use of whole numbers, decimals and fractions.
- 3) Convert between decimals, fractions and percents
- 4) Solve percent of number problems.
- 5) Use appropriate measurements and convert within the customary and metric systems.
- 6) Learn basic geometry concepts and apply to find the perimeter and area.
- 7) Use ratios and proportions.
- 8) Use graphs and data to find mean, median and mode

### **6<sup>th</sup> Grade Honors Level Course Description**

This course builds upon the essential skills of arithmetic as they apply to problem solving, reasoning, communication, making connections, and designing and analyzing representations. 6<sup>th</sup> Grade Curriculum Focal Points include developing an understanding of and fluency with multiplication and division of fractions and decimals, connecting ratio and rate to multiplication and division and writing, interpreting, and using mathematical expressions and equations.

#### **Course Objectives**

Students will be demonstrate and be able to:

- 1) Competency in all operations with whole numbers, decimals and fractions.
- 2) Solve problems involving the use of whole numbers, decimals and fractions.
- 3) Relate and convert between decimals, fractions and percents
- 4) Solve problems involving percent.
- 5) Use appropriate measurements and convert within the customary and metric systems
- 6) Learn basic geometry concepts and apply to find perimeter, area and volume
- 7) Use ratios and proportions to solve problems
- 8) Describe, organize and present data, then find the measures of central tendency
- 9) Solve one step algebraic equations using addition, subtraction, multiplication and

division.

### **7<sup>th</sup> Grade Regular Level Course Description**

This course builds upon the essential skills of arithmetic as they apply to problem solving, reasoning, communication, making connections, and designing and analyzing representations. 7<sup>th</sup> Grade Curriculum Focal Points include developing an understanding of and applying proportionality, including similarity, developing an understanding and use of formulas to determine surface areas and volumes of three-dimensional shapes, and developing an understanding of operations on all rational numbers and solving linear equations.

#### **Course Objectives**

Students will:

- 1) Work flexibly with fractions, decimals, and percents to solve problems.
- 2) Develop meaning for percents greater than 100 and less than 1
- 3) Use factors, multiples, prime factorization, and relatively prime numbers to solve problems
- 4) Use associative and commutative properties of addition and multiplication and the distributive property of multiplication over addition to simplify computations with integers, fractions, and decimals.
- 5) Understand and use the inverse relationships of addition and subtraction, multiplication and division, and squaring and finding square roots to simplify computations and solve problems.
- 6) Precisely describe, classify, and understand relationships among types of two- and three-dimensional objects using their defining properties
- 7) Understand relationships among the angles, side lengths, perimeters, areas, and volumes of similar objects

### **7<sup>th</sup> Grade Honors Level Course Description: Pre-Algebra**

This course builds upon essential skills of arithmetic as they apply to algebra. Real numbers and linear equations, linear inequalities, factoring, fractions, graphing and some elements of geometry are stressed.

#### **Course Objectives**

After completing this course students will be able to:

- 1) Use variables, expressions, equations, and integers to solve problems.
- 2) Solve algebraic equations involving decimals and fractions.
- 3) Use exponents and scientific notation.
- 4) Solve algebraic equations involving negative fractions and mixed numbers.
- 5) Use ratios and proportional reasoning.
- 6) Use nonlinear and linear functions.

- 7) Find area and volume of various solids.
- 8) Use the right triangle theorem to solve problems.
- 9) Use line plots, box-and-whisker plots, and other graphs to convey messages.
- 10) Use patterns and sequences involved with nonlinear functions.
- 11) Complete basic operations with polynomials.

### **8<sup>th</sup> Grade Regular Level Course Description: Pre-Algebra**

This course builds upon the essential skills of arithmetic, as they apply to algebra. Real numbers, rational numbers, irrational numbers, linear equations and inequalities, factoring, and some elements of geometry are stressed.

#### **Course Objectives**

Upon completion of this course, pupils will be able to:

- 1) Use variables, expressions, equations, and integers to solve problems.
- 2) Solve algebraic equations involving decimals and fractions.
- 3) Use exponents and scientific notation.
- 4) Solve algebraic equations involving negative fractions and mixed numbers.
- 5) Use ratios and proportional reasoning.
- 6) Use nonlinear and linear functions.
- 7) Find area and volume of various solids.
- 8) Use the right triangle theorem to solve problems.
- 9) Use line plots, box-and-whisker plots, and other graphs to convey messages.
- 10) Use patterns and sequences involved with nonlinear functions.
- 11) Complete basic operations with polynomials.

Students learn fundamental concepts such as integers; linear equations; how to add, subtract, multiply and divide monomials and polynomials; factoring of polynomials and solving of quadratic equations. This course also includes radicals and exponents.

### **8<sup>th</sup> Grade Honors Level Course Description: Algebra 1**

**Prerequisite: Successful completion of Pre-Algebra**

#### **Course Objectives**

After Completing the course, students will be able to:

- 1) Students expand and deepen their understanding of real and complex numbers by comparing expressions and performing arithmetic computations, especially those involving square roots and exponents. They use the properties of real numbers to simplify algebraic expressions and equations, and they convert between different measurement units using dimensional analysis.
- 2) Students draw and interpret graphs of relations. They understand the notation and

concept of a function, find domains and ranges, and link equations to functions.

3) Students solve linear equations and inequalities

4) Students perform operations on polynomials. They find factors of polynomials, learning special techniques for factoring quadratics. They understand the relationships among the solutions of polynomial equations, the zeros of a polynomial function, the x-intercepts of a graph, and the factors of a polynomial.

5) Students simplify rational expressions and solve rational equations using what they have learned about factoring polynomials.

6) Students simplify and perform operations on radical expressions and equations. They also rationalize square root expressions and understand and use the concepts of negative and rational exponents. They add, subtract, multiply, and divide, and simplify radical expressions and expressions with rational exponents. Students will solve radical equations and equations with terms that have rational exponents.

7) Students solve quadratic equations and solve these equations by factoring, completing the square and by using the quadratic formula.

### **8<sup>th</sup> Grade Accelerated Level: High School Geometry or Algebra 2**

On the occasion that a student entering 8<sup>th</sup> Grade has successfully completed Algebra 1 with a B+ or better in Grade 7, we can accommodate their needs through cooperation with our High School Math Department. Students at this level will take either High School Geometry or Algebra 2 with the 9<sup>th</sup> Grade class depending upon the rotation of course offerings each particular year.

### **Clubs/Electives**

Electives (or Club Period) are selected by students. Course options vary annually and allow students to explore subjects that are personally interesting such as: Newspaper, Art, Health, Study Hall, Computers and Technology, Scripps National Spelling Bee Club and Science Club to name a few.

### **Assembly and Study Hall**

Once a week the entire middle school unites for an assembly to review upcoming events and activities, address universal middle school concerns, enjoy guest speakers and the like.

Similarly once a week all middle school students divide into study hall groups with grade level teachers to practice skills they are learning in class.

### **PE**

Middle school students participate in PE on a daily basis. Each month students focus on a different sport to acquire the skills, agility, sportsmanship and teamwork necessary to be successful in each presented sport. Sports typically offered are: volleyball, basketball, tennis, soccer and flag football to name a few.