



Eighth Grade Standards of Learning

I. Academic Standards

The following academic standards apply for Eighth Grade at Wornick Jewish Day School. These standards reference Common Core, California State standards, and Next Generation Science standards. More information on these standards can be found at www.corestandards.org, www.cde.ca.gov, and <http://www.nextgenscience.org>.

Language Arts

- **Reading: Literature**
 - Cite textual evidence to support analysis and draw inferences.
 - Determine themes or central ideas and analyze their development through characters, setting, and plot.
 - Analyze how dialogue and events develop characters and advance the plot.
 - Compare and contrast the structure of multiple texts and explain how structure contributes to meaning and style.
 - Analyze how differing points of view create effects such as suspense and humor.
 - Analyze how modern works of fiction draw on myths, traditional stories, or religious texts.
 - Read and comprehend literary texts independently.
- **Reading: Informational Text**
 - Compare and contrast different authors' presentations of the same events or topics.
 - Read and comprehend literary nonfiction and informational texts.
- **Writing**
 - Plan, revise, edit, and strengthen writing with attention to purpose and audience.
 - Write formal arguments supported by logical reasoning and relevant evidence.

- Write informative texts and career-related documents using effective organization and analysis.
 - Write narratives with effective techniques, reflection, descriptive details, and organized event sequences.
 - **Speaking & Listening**
 - Participate effectively in collaborative discussions while building on others' ideas.
 - Present claims and findings using sound reasoning and well-chosen evidence.
 - Incorporate multimedia and visual displays to strengthen presentations.
 - Plan and deliver organized oral presentations.
 - **Language**
 - Demonstrate command of standard English grammar.
 - Use correct capitalization, punctuation, and spelling.
 - Use active and passive voice, as well as conditional and subjunctive mood, effectively.
 - Determine the meaning of unfamiliar and multiple-meaning words and phrases.
-

Science

- **Engineering Design**
 - Define design problems using clear criteria and constraints.
 - Develop and test models to improve design solutions.
 - Analyze test data to refine and optimize designs.
 - Evaluate competing design solutions using a systematic process.
- **From Molecules to Organisms**
 - Use evidence to explain how body systems are composed of interacting groups of cells.
 - Gather and synthesize information about how sensory receptors communicate with the brain.
- **Motion & Stability**
 - Plan investigations to explain how forces and mass affect an object's motion.
- **Energy**
 - Design, construct, and test devices that control thermal energy transfer.
 - Interpret graphical data relating kinetic energy to mass and speed.

- Explain how changes in kinetic energy involve energy transfer.
 - Investigate relationships among particles in kinetic energy systems.
 - **Waves**
 - Model how waves are reflected, absorbed, or transmitted.
 - Use mathematical models to explain the relationship between wave amplitude and energy.
 - **Matter & Its Interactions**
 - Analyze evidence to determine when chemical reactions occur.
 - Model how particle motion changes when thermal energy is added or removed.
 - Explain conservation of mass during chemical reactions.
 - Model the atomic composition of molecules and extended structures.
 - Design and test devices that release or absorb thermal energy through chemical processes.
-

Hebrew (Native)

- **Reading**
 - Read Hebrew fluently with accuracy, appropriate pace, and expression.
 - Demonstrate strong understanding of Hebrew vocabulary and grammar.
 - Comprehend complex texts using effective vocabulary and inference skills.
- **Writing**
 - Write in multiple genres with appropriate purpose, audience, and structure.
 - Write detailed, grammatically correct paragraphs on a given topic.
- **Listening & Speaking**
 - Present clear, evidence-based arguments on complex and concrete topics.
 - Use a wide range of grade-level Hebrew vocabulary effectively.

Hebrew (Non-Native)

- **Reading**
 - Read Hebrew fluently with accuracy, appropriate pace, and expressive intonation.
 - Demonstrate a strong understanding of Hebrew vocabulary and grammar.
 - Comprehend and analyze written texts.

- Answer comprehension questions accurately and provide thoughtful insights into a text's meaning and themes.
 - Demonstrate strong listening comprehension by understanding and analyzing spoken Hebrew.
 - **Writing**
 - Write stories about school, community events, and personal experiences.
 - Write about a variety of familiar topics with and without research.
 - **Listening & Speaking**
 - Exchange information and ideas in discussions on a variety of familiar academic and social topics.
 - Tell stories about school, community events, and personal experiences.
-

Jewish Studies

- **TaNakh**
 - Identify and evaluate moral dilemmas in TaNaKH and Rabbinic texts.
 - Analyze the motivations and personalities of biblical and rabbinic figures.
 - **Jewish Life**
 - Demonstrate leadership during *Tefillah*.
 - Understand the themes and traditions of Jewish holidays through Jewish texts.
 - **Jewish History**
 - Define and distinguish acculturation and acculturation strategies among Jewish communities.
 - Analyze the causes, events, and consequences of the Shoah.
 - Analyze key events in the history of Zionism and the State of Israel.
 - Apply historical knowledge to understand current events.
 - Articulate personal identity in relation to Jewish peoplehood.
 - Analyze primary and secondary historical sources.
 - Identify and explain group affiliations that contribute to personal identity.
-

Social Studies

- **U.S. History & Geography**

- Explain major events leading to the founding of the United States and the development of constitutional democracy.
 - Analyze efforts to abolish slavery and uphold the ideals of the Declaration of Independence.
 - Analyze the principles underlying the U.S. Constitution and political system.
 - Analyze U.S. foreign policy in the early Republic and beyond.
 - Analyze the development of the United States during the early 1800s.
 - Analyze the causes, events, and consequences of the Civil War.
 - Analyze Reconstruction and its lasting impact.
 - Analyze the effects of the Industrial Revolution on American society, politics, and the economy.
 - **Historical Thinking Skills**
 - Explain relationships among historical events.
 - Create timelines and other historical representations.
 - Use maps to analyze geographic, cultural, political, and economic relationships.
 - Develop historical research questions.
 - Distinguish relevant, credible, and verifiable information.
 - Analyze historical issues within their historical context.
 - **Reading for History**
 - Cite evidence from historical texts.
 - Determine and summarize central ideas.
 - Explain processes described in historical texts.
 - Interpret domain-specific vocabulary.
 - Integrate visual and written information.
 - Compare primary and secondary sources.
 - Read and comprehend historical texts independently.
 - **Writing for History**
 - Produce clear and organized historical writing.
 - Conduct focused historical research.
 - Gather, evaluate, cite, and synthesize information from multiple sources.
 - Support historical analysis with evidence from informational texts.
-

Geometry - Double Accelerated Track

- **Circles**

- Find arc lengths and sector areas.
- Apply theorems related to circles.
- **Congruence**
 - Analyze transformations in the coordinate plane.
 - Perform geometric constructions.
 - Prove geometric theorems.
 - Describe congruence using rigid motions.
- **Expressing Geometric Properties with Equations**
 - Translate between geometric descriptions and equations of circles.
 - Use coordinate geometry to prove geometric theorems.
 - Use coordinates to divide line segments and determine area and perimeter.
- **Geometric Measurement & Dimension**
 - Apply volume formulas to solve problems.
 - Visualize relationships between two-dimensional and three-dimensional figures.
- **Modeling with Geometry**
 - Apply geometric concepts to model real-world situations.
- **Similarity, Right Triangles & Trigonometry**
 - Apply trigonometry to general triangles.
 - Define trigonometric ratios and solve right-triangle problems.
 - Prove theorems involving similarity.
 - Explain similarity using geometric transformations.

Algebra - Single Accelerated Track

- **Expressions & Equations**
 - Interpret the structure of expressions.
 - Create and solve equations in one variable.
 - Create, graph, and solve compound inequalities in one variable.
 - Rearrange formulas to highlight a quantity of interest using equation-solving strategies.
 - Represent and solve two-variable inequalities graphically.
 - Analyze and solve pairs of simultaneous linear equations.
 - Perform addition, subtraction, and multiplication with polynomials.
 - Factor quadratic polynomials.
- **Functions**
 - Read, understand, and use function notation.
 - Build new functions from existing functions using transformations.

- Define, evaluate, and compare functions across multiple representations.
- Interpret functions in real-world contexts, including applications such as distance-time graphs.
- **Geometry**
 - Use coordinates, slope, and distance formulas to prove geometric theorems algebraically.
- **Linear, Quadratic, & Exponential Models**
 - Recognize connections between proportional relationships and linear functions, including arithmetic sequences.
 - Represent and interpret relationships between quantities using graphs, equations, and tables.
 - Compare linear, quadratic, and exponential functions to solve problems and model real-world situations.
 - Create, solve, and graph quadratic equations and functions.
 - Graph and interpret exponential functions, including geometric sequences.
- **Real Number System**
 - Extend and apply properties of exponents with integer exponents.
 - Simplify radicals.
 - Apply properties of rational and irrational numbers.
- **Statistics & Probability**
 - Investigate linear and nonlinear patterns of association in data involving two variables.
 - Summarize, represent, and interpret bivariate quantitative data.
 - Approximate and analyze lines of best fit for linear relationships.
 - Summarize, represent, and interpret bivariate categorical data.

Math - Grade Level Track

- **Expressions & Equations**
 - Analyze and solve linear equations in one variable.
 - Analyze and solve systems of linear equations.
 - Identify and describe relationships between parallel and perpendicular lines.
 - Explain the connections between proportional relationships and linear functions.
- **Geometry**
 - Solve real-world and mathematical problems involving the volume of cylinders, cones, and spheres.
 - Apply the Pythagorean Theorem in two- and three-dimensional figures.

- Demonstrate congruence and similarity using physical models, transparencies, or geometry software.
 - **Statistics & Probability**
 - Investigate linear and nonlinear patterns of association in data involving two variables.
 - Summarize, represent, and interpret bivariate quantitative data.
 - Approximate and interpret a line of best fit for linear relationships.
 - Summarize, represent, and interpret bivariate categorical data.
 - **The Number System**
 - Identify irrational numbers and approximate them with rational numbers.
 - Simplify expressions involving radicals and integer exponents.
 - Apply powers of 10 and exponent properties when working with scientific notation.
 - **Functions**
 - Define, evaluate, and compare functions.
 - Model relationships between quantities using functions.
 - **Mathematical Practices**
 - Apply mathematics to real-world situations.
 - Attend to precision.
 - Construct and justify mathematical arguments while evaluating the reasoning of others.
 - Recognize and apply patterns in repeated reasoning.
 - Identify and use mathematical structure and patterns.
 - Make sense of problems and persevere in solving them.
 - Reason abstractly and quantitatively.
 - Select and use appropriate mathematical tools strategically.
-

Physical Education

- **Participation**
 - Arrive prepared and dressed for physical activity.
 - Participate consistently in physical education activities.
- **Motor Skills & Movement**
 - Transfer learned skills across activities.
 - Combine movement patterns in team sports.
 - Demonstrate control using hands and feet.

- Apply offensive and defensive strategies.
- Design games that incorporate offensive roles, defensive strategies, and scoring systems.
- **Fitness**
 - Demonstrate physical fitness and strength.
 - Apply appropriate warm-up and cool-down techniques.
- **Teamwork**
 - Demonstrate sportsmanship and respect for officials and participants.
 - Work cooperatively to achieve team goals.
 - Recognize teammates' contributions and celebrate group success.
 - Fulfill team roles and responsibilities.
 - Demonstrate leadership within team activities.
 - Foster an inclusive and supportive environment for all participants.

II. Process Goals

In addition to rigorous academic learning, Wornick emphasizes additional skills that support the whole child and prepare them for high school, college, and beyond, including: organization, critical thinking, growth mindset, collaboration, creativity, public speaking, social-emotional learning, and respect for self and others. The following process goals are a critical component of an education at Wornick Jewish Day School.

Effective Leadership Skills

- Follow directions, class rules, routines, and expectations.
- Take responsibility for actions.
- Demonstrate initiative and independence.
- Give constructive feedback to others.
- Apply constructive feedback to improve performance.
- Respect self, others, and the environment.

Effective Communication Skills

- Advocate for personal social, emotional, and academic needs.
- Participate actively and effectively in collaborative discussions.
- Ask clarifying questions to support understanding and learning.
- Collaborate respectfully and productively with peers.

Effective Learning Skills

- Keep personal space and materials organized.
- Work independently and manage responsibilities.
- Complete tasks and assignments on time with integrity.
- Use class time effectively.
- Use technology appropriately and responsibly.