Eighth Grade Curriculum

Subject	Curriculum
Reading	• critique story elements (character, setting, steps in plot) • paraphrase and discriminate themes and styles of literature • integrate and relate bodies of literature
Writing	• categorize writings for a specific audience and purpose • originate and produce bodies of writing (i.e. narrative, cause/effect) • critique a myriad of bodies of writing
Listening	• summarize universal themes • infer and discriminate information presented in literature • individually and in groups, expand and extend themes and universal truths expressed in writing
Speaking	• organize dialog based on primary source • debate and critique issues and themes presented in literature • prepare and produce an original speech
On Level Math	• add, subtract, multiply and divide complex fractions • measurement and geometry-parallel lines cut by a transversal, volume of 3-D prisms and cylinders, surface area of 3-D shapes, constructions, distance between points, similar triangles, congruent angles, degrees in regular polygons and Pythagorean Theorem • Mastery of ratio and proportion-scale drawings in circumference, perimeter and area. Inverse proportions, graph proportional equations (direct variation equations) • solve linear equations in one and two variables-variables on both sides, graphing linear equations, slopes, Cartesian plane and properties of equality • Data analysis-mean, median and mode. Charts and graphs, statistics and display data and probability
Advanced Math	• expressions, equations and functions • properties of real numbers • data analysis, best fit lines • solve, write and graph linear equations and functions-paper and pencil, graphing calculator • solve, write and graph linear inequalities • exponent laws • graphing exponential functions • operations with polynomials • factoring polynomials • solving and graphing quadratic equations and functions-quadratic formula, complete the square, graphing calculator

	• operations with radicals • graphing square roots • rational equations and functions • solving and graphing systems of equations-quadratics and linear
Science	Life Science Unit • Study and master the basic units of life, all by using microscopes to view cells, learning the cell parts and investigating the cell cycle • Develop understanding of the principles of diffusion, osmosis, cellular respiration, photosynthesis and fermentation. Work to analyze processes and apply new knowledge through a variety of experiments • Investigate the purpose and structure of DNA, including how it applies to the passing on of traits • Use Punnett squares to explore the element of probability in the passing on of genetic conditions and characteristics • Explore Evolution Theory and its supporting evidence, while understanding both the inherent meaning of a theory as well as other people's viewpoints • Participate in an embryology program run by the 4H, where students incubate and hatch chicks after learning about their reproductive process Human Body Unit • Investigate many of the human body systems, including the skeletal, muscular, circulatory, digestive, immune and nervous systems • Dissect and explore a sheep's heart in order to identify the parts of the circulatory system studied in class • Measure bones like a forensic scientist, analyze your heart rate, investigate lung capacity, test vitamin C levels in common juices, explore the placement of your nerves and more
Social Studies	• recognize America's democratic principles as established in the Constitution • understand our duties and responsibilities as citizens • debate issues based upon historical documents, speeches, songs, art • identify the impact of the events in history on the everyday lives of citizens
Spanish	• plan family celebrations centered around food • compare houses, furniture and electronic equipment • identify chores around the home • understand cultural perspectives on family home
Art	• one and two point perspective • collage- Montage • 20th century American artists • ceramics coil pot

Music	• participate in a performance project, generally a fully-staged musical • investigate the basic techniques of guitar playing • study and identify characteristics of major musical eras: Renaissance, Baroque, Classical, Modern • create a melody on the staff and formulate lyrics to fit
Physical Education	• in a variety of passing games, use kicking, striking, throwing to optimally pass the ball for a scoring opportunity • anticipate an opponent's movements on offense and counteract them defensively • anticipate an opponent's movements on defense and counteract them offensively
Technology	• Technology is integrated into all areas Language Arts, Math, Science, and Social Studies Curriculum, All students have their own Google Drive account that can be accessed both at home and school.