What my child needs to know in Eighth Grade?

LANGUAGE ARTS

- Complete a research project answering a question using multiple resources
- Analyze and compare how texts and other media make connections and distinctions among individuals, ideas, or events
- Read and analyze grade-level fictional and non-fiction texts
- Compose a variety of written texts

MATH

- Define, order and compare rational and irrational numbers
- Analyze, represent, and solve real problems by using linear equations to create and interpret linear models
- Illustrate using the equation of a line to make connections between different representations of variables
- Evaluate geometric figures using angle, similarity, congruence and transformations and mathematical terminology; use and justify the Pythagorean Theorem

SCIENCE

- Formulate and refine testable questions and models that explore scientific processes.
- Identify variables, constant and changing variables
- Predict the outcome of scientific investigations and support that prediction with research and reasoning.
- Collect, analyze, and interpret data using multiple sources from an experiment.
- Predict and present the outcome of an experiment and support prediction with researched data analysis.
- Revise and suggest new models and investigations that may expand on concepts.
- Apply appropriate measurement techniques and tools to enhance scientific process.

SOCIAL STUDIES

- Evaluate conditions, actions, and motivations that contribute to conflict and cooperation among groups and nations
- Investigate tensions between peoples belief systems and governmental actions and policies
- Research information from a variety of sources to interpret relationships among geographic factors and historic events
- Use the tools of inquiry to understand historical, political, and economic issues along with the cultural development of our country

PHYSICAL EDUCATION

- Demonstrate knowledge of principles and concepts and apply game strategies to physical activities and sports.
- Identify the personal, physiological and fitness benefits of participating in a variety of physical activities as well as identify preferences for lifetime activity.
- Determine one's responsibility for developing skills, acquiring knowledge, and achieving fitness

MUSIC

- Perform and sight-read music at appropriate difficulty levels in major and minor keys
- Create music through composition, arranging and improvisation
- Identify and demonstrate an understanding of musical notation and elements
- Evaluate performances and compositions
- Demonstrates an understanding of music's role and tradition in American history and society

VISUAL ARTS

- Understand, recognize, and create using the characteristics and expressive features of art.
- Analyze, interpret, and make meaningful art.
- Analyze and critique personal work and the works of others.
- Connect and transfer history, culture, community, and environment in the study of art.
- Develop creative ideas through the process of inquiry, discovery, and research.