

Curriculum Guide Middle School

FRIENDS
SCHOOL



Challenging minds, nurturing spirits.

Inquiry-based Learning: A Collaboration Between Students, Staff, and Standards

Middle School students are active participants in their learning through our inquiry-based approach. Students ask questions, evaluate sources, and analyze information to find truth and meaning across all subjects. Social emotional learning at the Middle School helps students maintain connection to themselves, families, friends, and teachers as they navigate a time of profound developmental change. Students who actually love middle school? Friends School students do.

MATH

Math Fundamentals

Pre-Algebra

Algebra

Geometry

Our extensive math offerings provide a tailored math journey through which students are prepared to enter high school in the top math courses.

This course helps build a strong foundation and number sense to set students up for Algebra and high school math. This course focuses on the following concepts:

- Integers
- Decimals
- Fractions
- Ratios and Proportions
- Coordinate Plane & Graphing
- Statistics and Data

This course helps students develop the skills that are foundational to algebraic thinking. Pre-Algebra prepares students for high school algebra. This course focuses on the following concepts:

- Rational Numbers
- Integers
- Algebraic Expressions and Equations
- Linear Graphing
- Proportions
- Percent Application
- Statistics, Data and Probability

This high school level course gives students the ability to explore and communicate algebraic mathematical ideas clearly. This course focuses on the following concepts:

- Rational Number
- Variables
- Percentages
- Proportions, and Scale
- Solving Inequalities
- Linear Equations and Graphs
- Systems of Equations and Inequalities
- Exponents
- Polynomials
- Quadratics

The high school level course gives students the opportunity to explore space and shapes with a hands-on approach. Completion of this course will prepare students for Algebra II in high school.

This course focuses on the following concepts:

- Parallel & Perpendicular Lines
- Transformations
- Triangle Congruence and relationships
- Quadrilaterals & Other Polygons
- Similarity
- Trigonometry
- Coordinates
- Circles
- Two- & Three- Dimensional Models Probability

LANGUAGE ARTS

Writing

Reading

Students are active agents in their learning, engaging with the world—past, present, and future—through reading, writing, speaking, and listening. Through individualized and group instruction, students will develop critical thinking skills, learn how to annotate and express themselves through writing. Students will receive feedback on their writing multiple times a semester and will create a portfolio of their work at the end of the year.

Opinion/Argumentative Writing

Informative Writing

Narrative Writing

Mechanics/Usage- Spelling, punctuation, capitalization, sentence formation

- Engage in a wide range of fiction and nonfiction texts
- Vocabulary development
- Self-assess and reflect on personal learning
- Demonstrate the use of a range of strategies, research techniques, and persistence when engaging with difficult texts or examining complex problems or issues
- Use primary and secondary written sources to generate and answer research questions
- Listening for meaning and understanding

SOCIAL STUDIES

Students will **explore the commonalities and differences among people, social structures, and political structures from past to present**. Students will research and learn about historical events and social movements in order to understand the significance and impact of our history on present day society.

These four social studies topics are used to analyze and gain a deeper understanding of social structures and hierarchies.

History

- Formulate and respond to historical questions using primary and secondary sources
- Analyze sources for accuracy and point of view
- Construct and defend arguments using primary and secondary sources
- Understanding of social, political, cultural, economic, and technological development/change over time

Geography

- Use maps and other geographical tools for gathering information, finding patterns, and analyzing issues
- Formulate and respond to questions using geographic data
- Analyze interaction between humans and earth's physical features
- Expansion of the United States: land, security, sovereignty from a geographical lens

Economics

- Market economy including supply/demand, price/profit
- Role of taxes, tariffs and impact on income and spending
- International trade including purposes of debt, trade policies, negotiation strategies

Civics

- Current events
- Citizenship in various governments including rights, responsibilities, avenues for voicing opinions, avenues for monitoring government, and bringing about change
- Analyzing current primary sources
- Identify tensions between individual rights, state laws, federal laws, international law
- Political activism and advocacy

SCIENCE

These three scientific topics are part of our Integrated Curriculum. Equal weight is given to Life Science, Earth Science, and Physical Science.

Science is taught in a flipped learning environment where content is taught independently allowing teachers to focus class time on hands-on lab work.

Each year every middle school student participates in our science fair, where they independently investigate topics and questions of their own choosing. Guided by their teachers, students learn how to apply skills and concepts learned in class to answer their own scientific questions. 7th and 8th grade students also have the opportunity to submit their science fair projects to the local and state competitions.

Earth

Anatomy of Earth & landforms

- Rock & mineral classification
- Plate tectonics, convection currents & Earth evolution/formations

Astronomy

- Explore solar system, galaxy, universe
- Key astronomical landmarks, formations and evolution

Physical

States of matter

- Behavior of gasses, pressure and temperature
- Changes of matter

Chemistry

- Anatomy of the atom
- Acids Bases Periodic Table and pH scale
- Mixtures, compounds & molecules
- Ionic & Covalent bonding

Physics (energy and motion)

- Newton's laws and principles in the physical world
- Motion, velocity, acceleration

Life

What is life?

- What does it mean to be "alive"?
- Defining and exploring the characteristics of life

Cellular Biochemistry and Interaction (Plant and Animal)

- Organelles and their functions
- Meiosis and Mitosis

Genetics

- Mendelian Genetics
- Alleles: dominant, recessive, codominance
- Chromosomes
- Genes & Pedigrees
- Phenotypes & Genotypes
- Applications of Punnett squares

WORLD LANGUAGE

- All students take a world language for all three years. We have two approaches for helping our students become fluent and prepared for participating in a world language class in high school.
- Students use Duolingo as a way to receive direct feedback that is individualized and targeted.
- Additionally they engage in group projects, conversations and participate in Spanish speaking events in the Boulder community.

PHYSICAL EDUCATION

- Activities may include:
- Yoga
 - Field hockey
 - Volleyball
 - Basketball
 - Frisbee
 - Obstacle courses
 - Soccer
 - Field and Strategy Games

STUDY HALL

- Time management
- Organization and materials management
- Study skills
- Advocating for yourself with adults and peers
- Navigating online resources

TECHNOLOGY

Our student's use of technology will play a vital role in their education. We believe that helping students become digital citizens involves helping them see technology as a tool for creative problem solving. Students will learn how to employ effective research strategies and evaluate credible sources. They will also learn how to safely navigate social media and gain awareness of their digital footprint.

COMMUNITY

- The 3 day/2 night all school fall camping trip is a community building experience that build connections and helps faculty gain an understanding of each students' uniqueness
- Spring grade trips celebrate the school year, student growth, and revisits themes from the year.
- Weekly Wellness grade-level classes taught by Middle School Counselor.
- Advisory/Insight class/Grade Meeting keeps each student connected to a teacher and helps build social and emotional skills and community.

ELECTIVES

VISUAL ARTS

- Painting and Drawing
- Sculpting
- Design skills
- Art as a force for positive change in the world
- Collaborations with working artist
- Personal expression through various media
- Collage
- Photography

YEARBOOK

- Photography
- Journalism
- Design and layout work
- Storytelling
- Graphic design

FILM THEORY

- Learn about the power of film and its impact on society
- Analyze and interpret stories, character, story structure, and narrative technique
- Look at film in relation to other art forms including music, painting, theater, dance and photography.

DEBATE

- Argument styles
- Current events
- Persuasive speaking
- Public Forum debate
- Write opening statements
- Articulate opinions
- Defend two sides of controversial issues.

GUITAR

- Chord
- Scales
- Picking technique
- Finger technique
- Riffs
- Beginning theory
- Group and solo performance

GAME THEORY

- Logic games
- Strategy games
- Probability theory
- Create your own game
- Game theory in economics, biology, business, law, politics, sociology, and computer science

MARIMBA

- History of marimba music
- Mallet technique
- Aural music learning
- Rhythm security
- Performance skills (sharing at the end of the semester)
- Ensemble skills

MUSICAL THEATER

- Solo Singing
- Group Singing
- Acting
- Improvisation
- Stage Movement
- Histories of Musicals
- Repertoire work

JAZZ BAND

- Jazz Theory and improvisations techniques
- Jazz History
- Learning standard jazz repertoire
- Ensemble skills

WOODWORKING

- Tool safety and maintenance
- Design and build projects
- Problem solve
- Use hand tools, power tools, and woodworking machinery