



The Bridges Academy
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The Bridges Academy strives to develop its program that not only meets the expectations of the Common Core curriculum but surpasses it. Reference to New York State and national standards including the National Council of Teachers of English (NCTE), National Council of Teachers of Math (NCTM), Next Generation Standards in Science as well as the standardized testing offered by the Educational Records Bureau (ERB) afford us the opportunity to consistently monitor, analyze and refine all aspects of our students' experience.

Middle School Curricula

Sixth Grade

English Language Arts

This course aims to provide a comprehensive framework covering literature and literary analysis, essay writing in different genres, grammar, and vocabulary. By the end of the year, students will have developed critical thinking skills, improved their writing abilities, and expanded their knowledge and understanding of the English language.

Literature and Literary Analysis

- Introduction to different genres of literature such as fiction, non-fiction, mythology, and narrative
- Reading and analyzing a variety of texts including short stories, novels, and poems
- Identifying and discussing literary elements such as plot, character, setting, theme, and symbolism
- Exploring different literary devices and their impact on the text
- Developing critical thinking skills through close reading and interpretation of literature
- Engaging in class discussions and written responses to analyze and interpret literary works
- Major works read:
 - *The True Confessions of Charlotte Doyle* by Avi
 - *Percy Jackson and the Olympians, Book 1* by Rick Riordan
 - *Hidden Figures: Young Readers Edition* by Margot Lee Shetterly

Essay Writing

- Narrative Essay Writing:
 - Understanding the elements of a narrative essay (plot, characters, setting, conflict, resolution)
 - Planning and organizing ideas for a narrative essay
 - Writing a well-structured narrative essay with a clear beginning, middle, and end
 - Incorporating descriptive language and dialogue to enhance the narrative
- Analytical Essay Writing:
 - Learning to analyze and interpret literary works
 - Developing a thesis statement and supporting it with evidence from the text
 - Organizing ideas logically and coherently in an analytical essay
 - Using proper citation and referencing when quoting or paraphrasing from the text

- Argumentative Essay Writing:
 - Understanding the structure and components of an argumentative essay
 - Identifying and analyzing persuasive techniques used in texts
 - Formulating a clear argument and supporting it with evidence and reasoning
 - Addressing counterarguments and refuting opposing viewpoints

- Compare and Contrast Essay Writing:
 - Identifying similarities and differences between two or more texts
 - Developing a thesis statement that highlights the main points of comparison or contrast
 - Organizing ideas in a logical and coherent manner
 - Using appropriate transitions and language to compare and contrast effectively

Grammar

- Reviewing and reinforcing parts of speech (nouns, verbs, adjectives, adverbs, pronouns, etc.)
- Learning and applying correct punctuation rules (commas, apostrophes, quotation marks, etc.)
- Practicing proper verb tense usage and subject-verb agreement
- Enhancing writing skills through grammar exercises and application in writing assignments

Vocabulary

- Expanding vocabulary through reading and context clues
- Learning and using new words in speaking and writing
- Understanding word roots, prefixes, and suffixes to decipher word meanings
- Developing strategies for effective vocabulary acquisition and retention
- Applying new vocabulary in various contexts to enhance communication skills

Social Studies

Welcome to 6th Grade Social Studies! In this course, students will focus on world history, exploring various topics such as the Paleolithic Era, ancient river valley civilizations, Classical Greece and Rome, Medieval Europe, and the Renaissance. Through engaging lessons, interactive activities, and thought-provoking discussions, students will develop a deep understanding of these historical periods and the key events and figures that shaped them.

Topics Covered

1. The Paleolithic Era: Students will learn about early human civilizations, their lifestyles, and the development of tools and technology.

2. Ancient River Valleys: Students will explore the civilizations that emerged in river valleys, such as the Nile, Tigris and Euphrates, Indus, and Yellow River.
3. Classical Greece: Students will study the ancient Greek civilization, including its contributions to democracy, philosophy, art, and architecture. Students will also write their first essay analyzing the legacy of Alexander the Great.
4. Rome: Students will examine the rise and fall of the Roman Empire, its government, society, and cultural achievements.
5. Medieval Europe: Students will learn about the Middle Ages, including feudalism, the Crusades, and the Black Death.
6. The Renaissance: Students will explore the rebirth of art, literature, and learning in Europe during the 14th to 17th centuries.

One of the key focuses of this course is the development of evidence-based writing skills. Students will learn how to construct well-reasoned arguments supported by evidence from primary and secondary sources. They will practice organizing their thoughts, conducting research, and effectively communicating their ideas through written essays.

In addition to evidence-based writing, students will also learn general essay writing skills. They will be taught how to structure an essay, develop a claim, and use appropriate evidence to support their claims. Students will also learn how to annotate texts, highlighting key information and making connections between different sources.

Throughout the course, students will have the opportunity to practice these skills through a variety of assignments and projects. They will receive constructive feedback from their teacher to help them improve their writing and critical thinking abilities.

As part of this course, students will engage in a final research project and wax museum presentation. They will choose a key figure from history and conduct in-depth research on their life, contributions, and impact. Students will then embody their chosen figure and present their findings to their classmates and other members of the school community. This project will enhance their research, presentation, and public speaking skills while also deepening their understanding of historical figures and their significance.

In addition to the regular coursework, students in this course will have the exciting opportunity to participate in the Great History Challenge. This competition is designed to allow students to showcase their knowledge and passion for history while engaging in a fun and interactive learning experience.

Mathematics

Sixth Grade students will follow-up on the basic mathematical skills they have learned in previous grades. They have mastered the four basic fundamental operations and are

now ready for a more challenging year of computations, equations, and mathematical problems.

Grade 6 Math will enhance the basic math skills, number sense & operations, using formulas, and problem solving. The students will also be studying equations and inequalities which is their first introduction to the Algebra they will be using for years to come.

Geometry will also be taught, where students are to learn about the different geometric figures. The latter part of the course will be on measurements, and how to solve for perimeter, circumference, area, volume, and more.

The 6th grade math curriculum focuses on four critical areas:

1. connecting ratio and rate to whole number multiplication and division and using concepts of ratio and rate to solve problems
2. completing understanding of division of fractions and extending the notion of number to the system of rational numbers, which includes negative numbers
3. writing, interpreting, and using expressions and equations
4. developing understanding of statistical thinking.

Key Practices for Mathematics:

- Make sense of problems and persevere in solving them.
- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.
- Model with mathematics.
- Use appropriate tools strategically.
- Attend to precision.
- Look for and make use of structure.
- Look for and express regularity in repeated reasoning.

Concepts:

- Properties of Operations
- Order of Operations
- Understanding Decimals
- Adding, subtracting multiplying, and dividing decimals
- Writing algebraic expressions
- Solving addition, subtraction, multiplication ,and division equations
- Exponents
- Prime Numbers
- Greatest Common Factor
- Least Common Multiple
- Distributive Property
- Simplifying algebraic expressions
- Multiplying and dividing fractions and mixed numbers
- Equations with fractions

- Ratios, Unit Rates
- Understanding percents
- Percents, Fractions, and Decimals
- Finding the percent of a number
- Integers (with Negative Numbers)
- Comparing and Ordering Rational Numbers
- Inequalities
- Solving one step inequalities
- Points in the coordinate plane
- Functions
- Graphing functions
- Area of Parallelograms, triangles, and polygons
- Surface area and volume of prisms and pyramids
- Mean, Median, mode, range
- Box and whisker plots
- Statistical questions
- Frequency Tables

Science

Students will be engaged in an activity-based curriculum that develops their process and problem-solving skills. This course focuses on physical science.

- Introduction to Matter
 - Describing Matter
 - Classifying Matter
 - Measuring Matter
 - Changes in Matter
- Solids, Liquids, and Gases
 - States of Matter
 - Changes of State
 - Gas Behavior
- Elements and the Periodic Table
 - Introduction of Atoms
 - Organizing the Elements
 - Metals
 - Nonmetals and Metalloids
 - Radioactive Elements
- Atoms and Bonding
 - Atoms, Bonding, and the Periodic Table
 - Ionic Bonds
 - Covalent Bonds
 - Bonding in Metals
- Chemical Reactions
 - Observing Chemical Changes
 - Describing Chemical Reactions

- o Controlling Chemical Reactions
- Acids, Bases, and Solutions
 - o Understanding Solutions
 - o Concentration and Solubility
 - o Describing Acids and Bases
 - o Acids and Bases in Solution
- Motion
 - o Describing Motion
 - o Speed and Velocity
 - o Acceleration
- Forces
 - o The Nature of Force
 - o Friction and Gravity
 - o Newton's Laws of Motion
 - o Momentum
 - o Sinking and Floating
- Work and Machines
 - o Work and Power
 - o Understanding Machines
 - o Inclined Planes and Levers
 - o Putting Machines Together
- Energy
 - o Understanding Energy
 - o Forms of Energy
 - o Energy Transformations and Conservation
- Thermal Energy and Heat
 - o Temperature, Thermal Energy, and Heat
 - o The Transfer of Heat
 - o Thermal Properties
- Characteristics of Waves
 - o Understanding Waves
 - o Properties of Waves
 - o Interactions of Waves
- Sound
 - o The Nature of Sound
 - o Properties of Sound
 - o Music
 - o Hearing Sound
 - o Using Sound
- Electromagnetic Waves
 - o The Nature of Electromagnetic Waves
 - o Waves of the Electromagnetic Spectrum
 - o Wireless Communication
- Light
 - o Light and Color

- o Reflection and Mirrors
- o Refraction and Lenses
- o Seeing Light
- o Using Light
- Electricity
 - o Electric Charge and Static Electricity
 - o Electric Current
 - o Electric Circuits
 - o Electric Power and Safety
- Magnetism and Electromagnetism
 - o Understanding Magnetism
 - o Magnetic Fields
 - o Electromagnetic Force
 - o Electricity, Magnetism, and Motion
 - o Electricity from Magnetism

Seventh Grade

English Language Arts

This course aims to provide a comprehensive framework covering literature and literary analysis, essay writing in different genres, grammar, and vocabulary. By the end of the year, students will have developed critical thinking skills, improved their writing abilities, and expanded their knowledge and understanding of the English language.

Literature and Literary Analysis

- Introduction to different genres of literature such as fiction, non-fiction, poetry, and drama
- Reading and analyzing a variety of texts including short stories, novels, poems, and plays
- Identifying and discussing literary terms such as tone, mood, symbolism, hyperbole, and irony
- Exploring different literary devices and their impact on the text
- Developing critical thinking skills through close reading and interpretation of literature
- Engaging in class discussions and written responses to analyze and interpret literary works
- Major works read:
 - o *A Long Walk to Water* by Linda Sue Park
 - o *The Outsiders* by S.E. Hinton
 - o *No Fear Shakespeare: A Midsummer Night's Dream* by William Shakespeare
 - o *Refugee* by Alan Gratz

Essay Writing

- Analytical Essay Writing:
 - Learning to analyze and interpret literary works
 - Developing a thesis statement and supporting it with evidence from the text
 - Organizing ideas logically and coherently in an analytical essay
 - Using proper citation and referencing when quoting or paraphrasing from the text

- Argumentative Essay Writing:
 - Understanding the structure and components of an argumentative essay
 - Identifying and analyzing persuasive techniques used in texts
 - Formulating a clear argument and supporting it with evidence and reasoning
 - Addressing counterarguments and refuting opposing viewpoints

- Compare and Contrast Essay Writing:
 - Identifying similarities and differences between two or more texts
 - Developing a thesis statement that highlights the main points of comparison or contrast
 - Organizing ideas in a logical and coherent manner
 - Using appropriate transitions and language to compare and contrast effectively

- Problem-Solution Essay Writing:
 - Understanding the structure and components of a problem-solution essay
 - Identifying and analyzing problems and proposing effective solutions
 - Developing a clear thesis statement and supporting it with evidence and reasoning
 - Addressing counterarguments and refuting opposing viewpoints

Grammar

- Reviewing and reinforcing parts of speech (nouns, verbs, adjectives, adverbs, pronouns, etc.)
- Understanding sentence structure (subject, predicate, clauses, phrases)
- Learning and applying correct punctuation rules (commas, apostrophes, quotation marks, etc.)
- Expanding knowledge of sentence types (simple, compound, complex)
- Practicing proper verb tense usage and subject-verb agreement
- Enhancing writing skills through grammar exercises and application in writing assignments

Vocabulary

- Expanding vocabulary through reading and context clues
- Learning and using new words in speaking and writing
- Understanding word roots, prefixes, and suffixes to decipher word meanings

- Developing strategies for effective vocabulary acquisition and retention
- Applying new vocabulary in various contexts to enhance communication skills

Social Studies

Welcome to 7th Grade Social Studies! In this course, students will explore various topics in American history, from the Native Americans and the 13 English Colonies to the American Civil War. Through engaging lessons, interactive activities, and thought-provoking discussions, students will develop a deep understanding of these historical periods and the key events and figures that shaped them.

Topics Covered

1. Native Americans: Their cultures, interactions with European settlers, and impact on American history.
2. The 13 English Colonies: The establishment, development, and challenges faced by the early English settlements in North America.
3. The Causes of the American Revolution: The factors that led to the colonists' desire for independence from British rule.
4. The American Revolution: The major events, key figures, and outcomes of the Revolutionary War.
5. The US Constitution: The creation and principles of the United States Constitution and its significance in shaping the nation.
6. The Early Republic: The challenges and achievements of the early years of the United States as a new nation.
7. The War of 1812: The causes, major battles, and consequences of the conflict between the United States and Great Britain.
8. The Jackson Era: The presidency of Andrew Jackson and its impact on American politics and society.
9. Westward Expansion: The expansion of the United States westward and its impact on Native Americans and the nation as a whole.
10. Sectionalism: The growing divide between the North and South over issues such as slavery and states' rights which will bring the nation to civil war.
11. The American Civil War: The major battles, key figures, and outcomes of the Civil War.

One of the key focuses of this course is the development of evidence-based writing skills. Students will learn how to construct well-reasoned arguments supported by evidence from primary and secondary sources. They will practice organizing their thoughts, conducting research, and effectively communicating their ideas through written essays.

In addition to evidence-based writing, students will also learn general essay writing skills. They will be taught how to structure an essay, develop a claim, and use appropriate evidence to support their claims. Students will also learn how to annotate texts, highlighting key information and making connections between different sources.

As the culmination of this course, students will undertake a final research project on two American Presidents and their domestic and foreign policies. They will conduct in-depth research, analyze primary and secondary sources, and develop a well-supported argument on whether a particular policy was a help or hindrance to the country. Students will also deliver a persuasive speech presenting their findings and arguments to the class. This project will enhance their research, presentation, and public speaking skills while also deepening their understanding of historical figures and their significance.

In addition to the regular coursework, students in this course will have the exciting opportunity to participate in the Great History Challenge. This competition is designed to allow students to showcase their knowledge and passion for history while engaging in a fun and interactive learning experience.

Mathematics

The Seventh grade class is designed to further the curriculum from previous years and introduce pre-algebraic topics in preparation for future coursework. Topics covered in both classes include techniques in problem solving, operations with rational numbers, operations with integers, number theory, probability and statistics, algebra, geometry and measurement.

The 7th grade math curriculum focuses on four critical areas:

1. Developing understanding of and applying proportional relationships
2. Developing understanding of operations with rational numbers and working with expressions and linear equation
3. Solving problems involving scale drawings and informal geometric constructions, and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume
4. Drawing inferences about populations based on samples.

Key Practices for Mathematics:

- Make sense of problems and persevere in solving them.
- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.
- Model with mathematics.
- Use appropriate tools strategically.
- Attend to precision.
- Look for and make use of structure.
- Look for and express regularity in repeated reasoning.

Concepts:

- Adding, subtracting, multiplying, and dividing integers and rational numbers
- Fractions and decimals

- Algebraic Expressions
- Solving 1 and 2 step equations
- Solving equations involving distributive property
- Solving inequalities by multiplying, dividing, adding, and subtracting
- Ratios, Unit Rates, Proportions
- Solving proportions
- Similar Figures
- Maps and scale drawings
- Proportional relationships
- Percents, fractions, and decimals
- Simple Interest
- Finding percent of change
- Angle measures
- Area of parallelogram, triangle and complex figures
- Circumference and area of a circle
- Three-dimensional objects
- Surface Area and Volume of prisms and cylinders
- Cross sections
- Random Samples and Surveys
- Inferences
- Probability
- Sample Space
- Compound Events

Science

This course emphasizes the living environment portion of the Intermediate Level Science curriculum. The scope of the course includes such topics as cells, human physiology, reproduction and genetics, evolution, equilibrium, plant physiology, and ecology.

- Introduction to Living Things
 - Understanding Life
 - Classifying Life
 - Domains and Kingdoms
 - Evolution and Classification
- Introduction to Cells
 - Discovering Cells
 - Looking Inside Cells
 - Chemical Compounds in Cells
 - The Cells in its Environment
- Cell Processes and Energy
 - Photosynthesis
 - Cellular Respiration
 - Cell Division
- Genetics: The Science of Heredity

- o Heredity
- o Probability and Heredity
- o Patterns of Inheritance
- o Chromosomes and Inheritance
- DNA: The Code of Life
 - o The Genetic Code
 - o How Cells Make Proteins
 - o Mutations
 - o Human Inheritance
 - o Advances in Genetics
- Change Over Time
 - o Darwin's Theory
 - o Evidence of Evolution
 - o Rate of Change
- Viruses, Bacteria, Protists, and Fungi
 - o Viruses
 - o Bacteria
 - o Protists
 - o Fungi
- Plants
 - o Understanding Plants
 - o Classifying Plants
 - o Plant Structures
 - o Plant Reproduction
 - o Plant Responses and Growth
 - o Plants in Everyday Life
- Introduction to Animals
 - o What is an Animal?
 - o Animal Body Plans
 - o Introduction to Invertebrates
 - o Introduction to Vertebrates
 - o Vertebrate Diversity
- Animals Life Processes
 - o Skeletons and Muscles
 - o The Nervous System
 - o Animal Movement
 - o Obtaining Energy
 - o Animal Reproduction and Fertilization
 - o Development and Growth
- Introduction to the Human Body
 - o Body Organization
 - o Systems Interactions
 - o Homeostasis
 - o The Skeletal System
 - o The Muscular Systems

- o Skin
- Managing Materials in the Body
 - o Digestion
 - o The Circulatory System
 - o The Respiratory System
 - o Excretion
- Controlling Body Processes
 - o The Nervous System
 - o The Endocrine System
 - o The Male and Female Reproductive Systems
 - o Pregnancy and Birth
- Fighting Disease
 - o Infectious Disease
 - o The Body's Defenses
 - o HIV and AIDS
 - o Infectious Disease and Your Health
 - o Noninfectious Disease
- Populations and Communities
 - o Living Things and the Environment
 - o Populations
 - o Interactions Among Living Things
 - o Changes in Communities
- Ecosystems and Biomes
 - o Energy Flow in Ecosystems
 - o Cycles of Matter
 - o Biomes
 - o Aquatic Ecosystem
 - o Biodiversity

Eighth Grade

English Language Arts

This course aims to provide a comprehensive framework covering literature and literary analysis, essay writing in different genres, grammar, and vocabulary. By the end of the year, students will have developed critical thinking skills, improved their writing abilities, and expanded their knowledge and understanding of the English language.

Literature and Literary Analysis

- Introduction to different genres of literature such as fiction, non-fiction, poetry, and short stories
- Reading and analyzing a variety of texts including short stories, novels, poems, and memoirs
- Activating knowledge of historical content gained in social studies to gain a better understanding of context and author's purpose
- Identifying and discussing literary terms such as irony, connotation, denotation, allegory, and propaganda
- Exploring different literary devices and their impact on the text
- Identifying rhetorical appeals in texts and speeches
- Developing critical thinking skills through close reading and interpretation of literature
- Engaging in class discussions and written responses to analyze and interpret literary works
- Major works read:
 - *Night* by Elie Wiesel
 - *Animal Farm* by George Orwell
 - *Narrative of the Life of Frederick Douglass* by Frederick Douglass
 - assorted short stories

Essay Writing

- Analytical Essay Writing:
 - Learning to analyze and interpret literary works
 - Developing a thesis statement and supporting it with evidence from the text
 - Organizing ideas logically and coherently in an analytical essay
 - Using proper citation and referencing when quoting or paraphrasing from the text
- Argumentative Essay Writing:
 - Understanding the structure and components of an argumentative essay
 - Identifying and analyzing persuasive techniques used in texts
 - Formulating a clear argument and supporting it with evidence and reasoning
 - Addressing counterarguments and refuting opposing viewpoints
- Cause and Effect Essay Writing:
 - Understanding the structure and components of a cause and effect essay
 - Analyzing and explaining the relationship between causes and effects
 - Developing a clear thesis statement and supporting it with evidence and examples
 - Organizing ideas logically and coherently in a cause and effect essay
- Persuasive Essay Writing:
 - Understanding the structure and components of a persuasive essay
 - Analyzing persuasive techniques used in texts
 - Formulating a clear argument and supporting it with evidence and reasoning

- Addressing counterarguments and refuting opposing viewpoints

Grammar

- Reviewing and reinforcing parts of speech (nouns, verbs, adjectives, adverbs, pronouns, etc.)
- Understanding sentence structure (subject, predicate, clauses, phrases)
- Learning and applying correct punctuation rules (commas, apostrophes, quotation marks, etc.)
- Expanding knowledge of sentence types (simple, compound, complex)
- Practicing proper verb tense usage and subject-verb agreement
- Explain the function of verbals
- Recognize and correct inappropriate shifts in verb voice and mood
- Enhancing writing skills through grammar exercises and application in writing assignments

Vocabulary

- Expanding vocabulary through reading and context clues
- Learning and using new words in speaking and writing
- Understanding word roots, prefixes, and suffixes to decipher word meanings
- Developing strategies for effective vocabulary acquisition and retention
- Applying new vocabulary in various contexts to enhance communication skills

Social Studies

Welcome to 8th Grade Social Studies! In this course, students will explore various topics in American history, from Reconstruction to the American Civil War. Through engaging lessons, interactive activities, and thought-provoking discussions, students will develop a deep understanding of these historical periods and the key events and figures that shaped them.

Topics Covered

1. Reconstruction: Students will examine the aftermath of the Civil War and the challenges faced by the United States in rebuilding the nation. Topics covered include the 13th, 14th, and 15th Amendments, the Freedmen's Bureau, the rise of Jim Crow laws, and the impact of Reconstruction on African Americans.
2. The Gilded Age: Students will explore the rapid industrialization and urbanization that occurred in the late 19th century. Topics covered include the rise of big business, labor movements, immigration, political corruption, and the impact of technology on society.
3. The Progressive Era: Students will investigate the social and political reforms that emerged in response to the problems of the Gilded Age. Topics covered include the women's suffrage movement, the fight for workers' rights, the conservation movement, and the role of muckrakers in exposing social injustices.

4. American Imperialism: Students will examine the expansion of American influence overseas in the late 19th and early 20th centuries. Topics covered include the Spanish-American War, the acquisition of territories such as the Philippines and Puerto Rico, and the debate over American imperialism.
5. World War I: Students will analyze the causes and consequences of World War I, both domestically and internationally. Topics covered include the assassination of Archduke Franz Ferdinand, the technological developments on the battlefield, the Treaty of Versailles, and the impact of the war on American society.
6. The Roaring 20s: Students will explore the cultural, social, and economic changes that occurred in the 1920s. Topics covered include the Jazz Age, the Harlem Renaissance, Prohibition, the Scopes Trial, and the changing role of women.
7. The Great Depression: Students will examine the causes and effects of the Great Depression in the United States. Topics covered include the stock market crash of 1929, the Dust Bowl, the New Deal, and the impact of the Depression on different groups in society.
8. Rise of Totalitarianism: Students will analyze the rise of totalitarian regimes in Europe during the interwar period. Topics covered include the rise of Adolf Hitler and the Nazi Party, the Soviet Union under Joseph Stalin, and the impact of totalitarianism on Europe and the world.
9. World War II: Students will study the causes, events, and consequences of World War II. Topics covered include the Holocaust, the Pacific Theater, the home front, the leadership of Winston Churchill and Franklin Roosevelt, the atomic bombings of Hiroshima and Nagasaki, and the establishment of the United Nations.
10. The Cold War: Students will explore the ideological and geopolitical conflict between the United States and the Soviet Union. Topics covered include the Truman Doctrine, the Marshall Plan, the Korean War, the Cuban Missile Crisis, and the collapse of the Soviet Union.

One of the key focuses of this course is the development of evidence-based writing skills. Students will learn how to construct well-reasoned arguments supported by evidence from primary and secondary sources. They will practice organizing their thoughts, conducting research, and effectively communicating their ideas through written essays.

In addition to evidence-based writing, students will also learn general essay writing skills. They will be taught how to structure an essay, develop a claim, and use appropriate evidence to support their claims. Students will also learn how to annotate texts, highlighting key information and making connections between different sources.

As the culmination of this course and their time in middle school, students will undertake a final research paper. The final research paper is an opportunity for students to demonstrate their research, analytical, and communication skills. In this project, students will be required to write an original thesis and conduct original research on a topic that aligns with the theme of "Communication in History." This project will not only enhance their research and writing abilities

but also foster their presentation and public speaking skills, preparing them for future academic and professional endeavors.

In addition to the regular coursework, students in this course will have the exciting opportunity to participate in the Great History Challenge. This competition is designed to allow students to showcase their knowledge and passion for history while engaging in a fun and interactive learning experience.

Mathematics

The Algebra course is designed to emphasize the study of multiple representations of linear functions. They include mathematical concepts for working with rational numbers, various expressions, analyzing and solving linear equations & inequalities, data analysis, polynomials and geometry. Students will use hands-on materials and calculators, when needed, in solving problems where the algebra concepts are applied. The Algebra I course culminates in a New York State Regents exam.

The 8th grade math curriculum focuses on three critical areas:

1. formulating and reasoning about expressions and equations, solving linear equations and systems of linear equations
2. grasping the concept of a function and using functions to describe quantitative relationships
3. analyzing two- and three-dimensional space and figures using distance, angle, similarity, and congruence, and understanding and applying the Pythagorean Theorem.

Key Practices for Mathematics:

- Make sense of problems and persevere in solving them.
- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.
- Model with mathematics.
- Use appropriate tools strategically.
- Attend to precision.
- Look for and make use of structure.
- Look for and express regularity in repeated reasoning.

Concepts:

- Rational Numbers
- Irrational Numbers
- Cube Roots
- The Pythagorean Theorem
- Distance in the coordinate plane
- Solving 2 step equations
- Solving multi step equations
- Functions

- Proportional Relationships
- Linear and nonlinear functions
- Understanding Slope
- Graphing linear functions
- Comparing functions
- Solving systems by graphing, substitution, and elimination
- Scientific Notation
- Exponents and Multiplication
- Exponents and Division
- Factoring Polynomials
- Solving quadratic equations
- Systems of Equations
- Pairs of Angles
- Similar Figures
- Angles and Polygons
- Translations, reflections, dilations, and rotation
- Transformations and similarity
- Volume of prisms, cylinders, pyramids, and cones
- Spheres
- Scatter Plots
- Modeling Data with lines

Science

Working in sync with the Mathematics curriculum, the 8th grade science program will prepare students for the New York State Regents Exam in Earth and Space Sciences.

- Unit 1: Earth's Materials
 - Introduction to Earth Science
 - Minerals
 - Rocks Earth's Resources
- Unit 2: Sculpturing Earth's Surface
 - Weathering, soil, and Mass Movements
 - Running Water and Groundwater
 - Glaciers, Deserts, and Wind
- Unit 3: Forces Within
 - Earthquakes and Earth's interior
 - Plate Tectonics
 - Volcanoes and Other Igneous Activities
 - Mountain Buildings
- Unit 4: Historical Geology
 - Geologic Time
 - Earth's History
- Unit 5: Oceanography
 - The Ocean Floor

- o Ocean Water and Ocean Life
- o The Dynamic Ocean
- Unit 6: Meteorology
 - o The Atmosphere: Structure and Temperature
 - o Moisture, Clouds, and Precipitation
 - o Air Pressure and Wind
 - o Weather Patterns and Severe Storms
 - o Climate
- Unit 7: Astronomy
 - o Origin of Modern Astronomy
 - o Touring Our Solar System
 - o Studying the Sun
 - o Beyond Our Solar System

Foreign Language Curriculum French, Spanish and Mandarin

The central communicative goals in modern language learning are listening, speaking, reading and writing. These skills are used for the purposes of socializing, providing and acquiring information, expressing personal feelings and opinions, and getting others to adopt a course of action. Both our Lower School and Upper School grades benefit from:

- An engaging and developmentally appropriate curriculum that reflects the needs and interests of the child.
- Modes of instruction that include individual and choral repetition, total physical response, paired and small group work, differentiated instruction and interactive lessons using digital media.
- Concepts presented in a way that challenges students' thinking skills; for example, instead of just naming or labeling animals, students classify them by habitat or size.
- The opportunity to enroll and be acknowledged within National Assessments, such as the National French Exam, an annual competition sponsored by American Association of Teachers of French (AATF) that ranks students of French across the country.
- The teaching of New York State Learning Standards as outlined by the American Council for the Teaching of Foreign Languages (ACTFL) aligned with the Core Curriculum State Standards (CCSS).

- YCT Exam is an international standardized test of Chinese language proficiency. The test is administered by Chinese Testing International Co Ltd (CTI), a professional international Chinese education and examination service.

Middle School students receive instruction enhanced by the standards set forth by ACTFL:

- Communication
 - *Interpersonal mode*: participate in basic conversations (oral and written) in a variety of familiar and predictable topics, using isolated words and learned phrases.
 - *Interpretive mode*: comprehend short written or oral exchanges on topics that use learned vocabulary and grammatical structures.
 - *Presentational mode*: present using learned phrases and expressions (written or oral) on familiar topic
- Cultures, Connections & Comparisons
 - Describe and reproduce common practices of other cultures
 - Summarize information gathered from resources connected to other content areas (i.e: current events)
 - Study similarities and differences of basic structural patterns of student's own language and the target language. (i.e: Latin roots, cognates)
- Structure
 - Articles, nouns, adjectives, subject pronouns, *tu* vs. *vous*, present tense, *er, ir, re* verbs, irregular verbs, past tense, negation, possessive adjectives, yes/no questions, commands, prepositions, adverbs
- Context
 - Personal information, greetings/leave-takings, alphabet, numbers, calendar, weather/seasons, time/schedules/24 hour clock, emotions/feelings, expressions of well-being, opinions, sports/leisure activities, food/drinks/cafés, school, celebrations, nationalities, professions, geography, currency, basic health, parts of the body

6th-8th Grade Physical Education, Music, Fine Art, STEAM Curricula

Physical Education

6th – 8th Grade

Fitness and Nutrition

- Fitness testing
- Cardiovascular endurance
- Muscular Strength and Endurance
- Flexibility
 - Create a self fitness plan
 - Balance of proper nutritious foods and exercise

Manipulative Skills

Demonstrate proficiency in:

- Throwing and Catching
- Kicking and punting
- Passing and shooting
- Dribbling
- Volleying and striking

Cooperative Games/Team Building

- Working together
- Communication
- Problem-solving skills
- Leadership and listening
- Critical thinking
- Good Sportsmanship

Sports Skills and Activities

- Understanding and demonstrating strategy in games
- Understanding rules of various sports
- Having a basic understanding of various team sports and being able to demonstrate the basic and advanced skills required to play:
 - Soccer
 - Football
 - Team Handball
 - Basketball
 - Scooter Hockey

- Volleyball
- Badminton
- Lacrosse
- Kickball
- Wiffle ball

Music

The students will focus on:

- Genre studies
- Exposure to historical figures in music and their cultural significance
- Recognizing historically significant pieces of music
- Study of multicultural music and the cultures of the countries studied
- Performing pieces of music individually and/or as a group
- Performing music either vocal or instrumental

Band/Lessons

The students will focus on:

- Performing music with technical accuracy and stylistic expression, such as tempo and dynamics
- Demonstrate performance decorum, such as stage presence, attire, and behavior
- Demonstrate audience etiquette appropriate for venue, purpose, and context
- Apply teacher provided and collaboratively developed feedback to evaluate ensemble performances.

Chorus

The students will focus on:

- Performing music with technical accuracy and stylistic expression, such as tempo and dynamics
- Demonstrate performance decorum, such as stage presence, attire, and behavior
- Demonstrate audience etiquette appropriate for venue, purpose, and context
- Display appropriate posture and breathing techniques for performing ensembles
- Apply teacher provided and collaboratively developed feedback to evaluate ensemble performances.

Upper School Drama Club

Students in fourth through eighth grade have the opportunity to participate in an age appropriate theatrical performance. Students learn the ins-and-outs of performing a musical on stage including but not limited to:

- Character dialogue
- Staging and Blocking
- Choreography

- Memorizing songs and lines
- Working collaboratively with others to complete a show
- Basic set design and construction

We teach New York State and National Standards in Music Education.

Fine Art

Both our Lower School and Middle School grades benefit from:

- Learning problem solving skills and building their confidence
- Small class size ensures individual attention and help with drawing skills, painting techniques, sculpting with clay
- A non-competitive environment; every child is talented in their own unique way
- Students develop concentration and observation skills
- Fun, age-appropriate curriculum keeps the students engaged
- Students learn about the proper use of artist mediums
- Introduction to color theory and art history
- Watch appropriate videos on the subject matter or artist of the week
- Explore art from various historical periods and world cultures
- We teach New York State Department of Education standards in Fine Art:

What does NY State require children to learn in the area of Fine Art? "Students will make works of art that explore different kinds of subject matter, topics, themes, and metaphors. Students will use a variety of art materials, processes, mediums, and techniques, and use appropriate technologies for creating and exhibiting visual art works."

MIDDLE SCHOOL FINE ART CURRICULUM focuses on:

- Drawing and painting animals, people, landscapes and master artist works.
- How to use chalk and oil pastels, watercolor paints, markers, colored pencils.
How to blend the medium for a more 3-dimensional effect
- Combining mediums, learning which mediums work well together
- Learning color wheel: primary, secondary, complementary, tertiary, neutral colors
- Understanding positive and negative space
- Drawing proportions of the face and the human figure
- Elements of Art: line, shape, color, value, texture, form and space
- How to choose a medium for a project and what types of brushes to use for each type of paint
- Painting on canvas
- Using clay to make animals
- Building art appreciation by viewing artworks by famous artists and re-creating an artwork
- One and two point perspective drawing

- Introduction to photography
- Understanding the process of printmaking
- Creating a collaborative project with the class for our Art Auction
- Preparing artwork to be displayed in the three yearly art shows
- How to use technology in Art
- Learning about careers in the Art field
- Art Portfolio preparation for those looking to continue art in High School

STEAM @ Bridges

Technology is mindfully used in many levels of our academic and extracurricular programs at Bridges. Our STEAM (science, technology, engineering, art and math) program begins in nursery. Technology is introduced in Pre-K and used as a tool to identify and solve problems, present and share ideas, and document and reflect on work. It gives physical projects a voice and allows a student's work to come alive. Technology is also used to build digital portfolios of student growth that can easily be shared with parents. At Bridges, technology rarely stands alone. It is often blended with a hands-on, collaborative project that incorporates the design thinking process.

Our program is based on the standards created by ISTE (International Society for Technology in Education.) These standards are designed to empower student voice and ensure that learning is a student-driven process.

In the STEAM Lab, students engage in collaborative projects that are frequently interdisciplinary. These STEAM lessons are carefully designed to connect with or enhance the classroom curriculum.

The spiraling curriculum aims to develop students' technology and design skills in areas such as coding, keyboarding, robotics, circuit building, cardboard construction and the design thinking process. These skills serve as the foundation for ongoing work throughout Bridges. Woven throughout the STEAM program is ongoing learning about digital citizenship and the responsible use of technology both in the classroom and at home. This becomes increasingly important as students get older and transition to their own devices.