Middle School Catalog
6th to 8th Grade

B·E·S·T ACADEMY

Brookfield Engineering Science Technology

College & Career Pathways | Personalized Guidance Support

2021-2022 Academic Year

ENGLISH

ENGLISH LANGUAGE ARTS 6

Semester A

Through a study of myths, fables, and folk tales from different cultures—as well as novels and other modern forms of narrative, students learn the elements common to all forms of literature and the elements that are unique to each form. In lessons focused on writing and language study, students craft essays in several different modes and learn how to create the more formal style expected for school writing assignments. Lessons in this semester guide students to recognize and reproduce text structures and organizational patterns that work for different types of essays. The writing lessons also demonstrate the kinds of changes that students should make during the revising and editing stages of the writing process. Opportunities for teacher feedback are frequent, detailed, and varied.

Semester B

The second semester of Language Arts 6 builds on the skills and concepts introduced in the first semester. Students tackle more difficult texts in Semester B and apply more advanced analysis skills to reading and writing tasks. They also study some of the more subtle aspects of language, such as the role of connotation and nuance in an author's word choices and how those choices affect readers. Reading assignments are selected, in part, to provide models for students' own writing in specific modes, forms, or genres. Several lessons demonstrate methods of sharing and publishing writing using 21st century technology.

ENGLISH LANGUAGE ARTS 7

Semester A

Through analysis of written, spoken, and multimedia texts, students will become more critical consumers of information and of various forms of media. They will also synthesize and organize ideas to prepare structured essays in several different modes, including narrative, persuasive, and expository. Each lesson will guide students in learning and applying specific strategies for reading and writing different types of texts. A review of basic English mechanics is included in many of the writing lessons, along with a discussion of levels of formality required for different purposes and audiences. This course provides instruction in many modalities, including audiovisual presentations and videos, interactive activities, projects, and discussions. Opportunities for teacher feedback are frequent, detailed, and varied.

Semester B

The second semester of Language Arts 7 builds on the skills and concepts introduced in the first semester. Students tackle more difficult texts and themes in Semester B, and the level of analysis demonstrated and required is more in-depth. In this part of the course, students study the English language closely—both its history and evolution, and the less obvious ways it can be used to convey meaning. The reading assignments are selected to guide students in understanding how language can be used to convey broader themes in poetry, drama, and humorous or satirical texts. Students continue to develop their writing skills through multi-draft assignments and projects. Emphasis in this semester is on recognizing the multiple levels of meaning that any word or phrase might convey, and in writing one's own texts with these concepts in mind.

ENGLISH LANGUAGE ARTS 8

Semester A

During the first semester of this year-long course, students will read and analyze various kinds of written texts, include novels and short fiction, informational texts representing a wide range of topics and forms, and several one-act plays. Lessons in Semester A will also guide students in writing their own narratives and essays, using the readings in the course as both examples and sources of ideas for reflection, analysis, and argument. Students will learn better ways to discuss their thoughts and perceptions with others—they will practice their skills in collaborative discussions as well as informal journal entries, presentations, and speeches. Writing assignments include personal narratives, analytical and persuasive essays, and an original one-act play. Special emphasis is placed on

reading in certain content areas, such as science and history, as well as understanding and thinking critically about news and media sources.

Semester B
In Semester B, students will examine the role of historical autobiographies and diaries in our understanding of history. In the process, they'll study the impact of point of view on nonfiction texts. Students will be given opportunities to write autobiographical narratives of their own and then asked to connect their experiences to universal themes or philosophical positions, which they explore through writing about them. In the second half of the semester, students will study the relationship between poetic expression and several conventions of language, including syntax, voice, sentence types, and punctuation. Next, they will explore the nature of creativity, the processes that tend to produce good literature, and the features of experimental and multi-genre forms of fiction. Near the end of the semester, students will reflect on their own growth and development throughout the year, compiling a portfolio that illustrates the progress they've made. Finally, students will consider what high school will ask of them and how they might fulfill those expectations, having gained a better understanding of their strengths as well as areas ripe for continued learning and progress.

MATH

MATH 6

Semester A
Students begin the first semester of this course with a review of basic addition, subtraction, multiplication, and division of whole numbers. More complex concepts are built on these basics. Students learn how to add, subtract multiply, and divide integers, decimals, and fractions. The course also includes lessons on ratios and proportions.

Semester B
The second semester of Math 6 introduces students to the order of operations and how to use them in solving application problems. Building on these concepts, students are then introduced to the basics of algebra and algebraic expressions. Students then learn how to apply these problem-solving skills to percent and solving single and multiple step equations. An exploration of Geometry, probability and statistics concludes the second semester.

MATH 7

Semester A
In this first semester, students work with problem-solving skills, beginning algebra skills, geometry, decimals, fractions, data analysis, number theory and patterns, percent, and integer use. Projects measure the student's ability to integrate and apply the course objectives.

Semester B
In this continuation of the first semester, students work with fractions; unit conversions; proportions and rates; percent; geometry topics including lines, angles, polygons, polyhedrons, perimeter, area, surface area, volume, and transformations; squares and square roots; permutations and combinations; and probability. Real-life application of concepts is emphasized in all units.

Algebra Readiness 8

Semester A
Pre-Algebra A will help students move from the world of simple mathematics to the exciting world of Algebra and Geometry. They will develop skills that will be necessary throughout their life. Students will stretch their thinking by learning to solve real world problems. Learning math and algebra concepts can be fun. Abstract ideas can be challenging for many students, but the challenge is one they can meet. Concepts are presented with a little humor, making the learning fun. Students will enjoy learning each new concept and develop a deeper understanding of the math skills they already have. Each concept is presented using examples of the skills, concepts, and strategies students will need. Scaffolding of ideas is provided to ensure student learning. The course is offered in a six-unit format containing 5 lessons each for a total of 30 lessons. Students will study text pages, watch videos, interact

with flash presentations, and complete practice problems. The pace is controlled by the student and reviewing the material is encouraged.

Semester B
Pre-Algebra B will continue to move students into the exciting world of the unknown, Algebra. Building on what they have learned in mathematics and Pre-Algebra, students will expand their skills. They will be introduced to increasingly abstract concepts. Pre-Algebra B will provide the student with a concrete understanding of the basics for algebraic thinking. With numerous hands-on activities and demonstration videos, they will have multiple opportunities to enhance their process solving skills. Students will be given different assessment opportunities to demonstrate mastery of each skill. The course is offered in a six-unit format containing 5 lessons each for a total of 30 lessons. Students will study text pages, watch videos, interact with flash presentations, and complete practice problems. The pace is controlled by the student and reviewing the material is encouraged.

ALGEBRA 1

Semester A
Introduces students to the world of Algebra through expressions and equations. Students will evaluate algebraic expressions, solve linear equations, and graph them. This course also steers students through various real-world scenarios with the emphasis on using basic statistics to interpret the information given and found. Students learn through online lesson materials, videos, and interactive activities. The end of each unit tests students' understanding with a self-check quiz with feedback. Also included is a unit exam and project for students to apply what they have learned.
Teacher feedback is provided throughout the semester.

Semester B
Algebra 1 (semester B) builds on the concepts learned in the first semester by providing a strong foundation in solving problems. Students will work with problems and applications that involve exponents, quadratic equations, polynomials and factoring methods, rational and radical equations, data analysis and probability. Students will interact with course materials through online lessons, videos, interactive questions, and real-world applications.
Each unit ends with a self-check quiz to confirm knowledge of the concepts learned. There is also a unit exam and project. Teacher feedback is given throughout the course.

GEOMETRY

Semester A
Geometry is the study of the measurement of the world. What makes Geometry so engaging is the relationship of figures and measures to each other, and how these relationships can predict results in the world around us. Through practical applications, the student sees how geometric reasoning provides insight into everyday life. The course begins with the tools needed in Geometry. From these foundations, the student explores the measure of line segments, angles, and two-dimensional figures. Students will learn about similarity, triangles, and trigonometric ratios. Geometry A consists of six modules. Each module comprises ten lessons for a total of 60 lessons in the course.

Semester B
This course builds on the foundation of the first terms in Geometry. As in previous courses, deductive and inductive reasoning are emphasized, while applying problem-solving techniques to real-world problems. Students explore quadrilaterals and circles, and learn how an object is transformed, as well as how to represent that transformation algebraically and geometrically. Students calculate area and volume of 2-dimensional and 3-dimensional objects. Geometry B consists of six modules. Each module comprises ten lessons for a total of 60 lessons in the course.

SOCIAL STUDIES

SOCIAL STUDIES 6

Semester A

The first semester of Social Studies 6 introduces students to the beginnings of ancient civilization. We will trace the path of human origins in Africa and follow the path of migration around the Earth. This course will help students understand why we study history and the process in which we form conclusions about events in the past. Students will begin to learn about the major ancient civilization around the world and their cultures. Modern civilizations can trace their foundations to these ancient civilizations, and their cultures and histories teach us much about ourselves and the modern world in which we live.

Semester B

In the second semester of Social Studies 6, students will continue to examine ancient civilizations and their cultures. In this semester we will continue to trace the path of human civilization from the Mediterranean through the Eastern world. An emphasis will be placed on critical thinking and connecting themes in history to our modern world.

SOCIAL STUDIES 7

Semester A

This study of the history of the United States emphasizes how ideas, events, and philosophies have shaped the nation. Students will learn about America's past while mastering the skills of historical interpretation. Study begins with the earliest arrivals of people and ends with the conclusion of the Civil War.

Semester B

This course is a continuation of the first semester with an emphasis on how historical ideas, events, and philosophies have shaped the United States. Beginning with Reconstruction, this course uses the same skill development approach to guide students through U.S. history to the present.

SOCIAL STUDIES 8

Semester A

In this course students will understand the significance of government, law, and politics. They will examine the United States foundational documents and how they shaped the Unites States government. Students will examine the purposes and functions of federal and state government, law, and political systems. Learners will evaluate their role and civic responsibility to their families, communities, and country including voting and being a productive member of society. Learners will follow a step-by-step approach for successfully completing each lesson, which includes textbook reading, interactive activities, supplemental reading, lecture, video clips, and Power Point presentations to enhance and reinforce learning. Learners receive frequent feedback from teacher and peers through discussions.

Semester B

This course takes a more individualistic approach as students closely examine topics such as the justice system, local government, the environment, and the economy. Learners will understand the role that they play in each of these topics and the differences that they can make. Students will get to know leaders and influential people that have championed many causes including civil rights and the environment. Learners will also learn proper ways to interact in society including interpersonal skills and respecting differences in others including disabilities. By the end of semester B students will have a deeper understanding of their civic responsibilities as well as the difference one individual can make in society.

SCIENCE

LIFE SCIENCE

Semester A

Life Science is the study of cells, heredity, biological populations, and their changes over time. It includes human biology, ecology, diversity of organisms and the history and nature of science. In this course, students will have the opportunity to conduct and design experiments, identify, and classify organisms. Students will work on developing skills in data recording, classifying, measuring, observing, hypothesizing, analyzing, evaluation and inferring.

SEMESTER B

Life Science is the study of cells, heredity, biological populations, and their changes over time. It includes human biology, ecology, diversity of organisms and the history and nature of science. In this course, students will have the opportunity to conduct and design experiments, identify, and classify organisms. Students will work on developing skills in data recording, classifying, measuring, observing, hypothesizing, analyzing, evaluation and inferring.

EARTH & SPACE SCEINCE

Semester A

In the first semester students will learn about the scientific method and hone their understanding of using scientific measurements to Earth and Space Science. Also included are lessons on Earth maps and globes including detailed instruction on how to find specific locations using latitude and longitude.

Much of the first semester focuses on space science. Students will learn about Earth movements, seasons, the Moon, tides, solar and lunar eclipses, the Sun and its role as the main source of light and energy in the solar system. They will learn about planets, asteroids, meteors, comets, and their orbits and how force gravity holds it all together.

Outside the solar system there are lessons on stars, constellations, nebula, the Milky Way, and galaxies beyond.

There have been many recent discoveries in space science. Accordingly, careful attention has been given to presenting the most updated information available in areas of discovery such as stars with planets and the latest methods of detecting them as well as a look at NASA's most recent Curiosity landing on the Martian surface.

Semester B

In the second semester study zeros in closer to home: Earth science. Yet, the coursework is uniquely integrated and applied to disciplines of study outside of Earth science. Starting with the Earth's interior students study rocks and minerals, volcanoes, earthquakes, undersea ridges, trenches, and mountains and how the study of Earth's geologic history helps explain these phenomena.

On the Earth's surface students study weathering, soil, and erosion as well as water in all its forms the water cycle, oceans and ocean currents.

Above the Earth they will study the atmosphere: its composition, air pressure and air movement. This knowledge is then applied to lessons on how human populations are affected by natural resources, renewable and non-renewable, both on and inside the Earth.

These lessons are integrated with lessons that discuss how humans and living organisms are affected by air and water pollution, acid rain, changes in the ozone layer and how these conditions influence biodiversity, habitat loss and species survival.

The course is capped off by lessons that take an in-depth look at the process of technology design giving students a look at of how scientists and technical designers work together to achieve common goals.

Lastly, students are taught about the kinds of professions that currently exist in the science and technology fields and learn about the necessary academic preparation needed to gain employment in these branches of study.

PHYSICAL SCIENCE

Semester A

This is an introduction to the Physical Sciences and scientific methodology. The objectives are to impart a basic knowledge of the physical properties and chemistry of matter. Skills are developed in the classroom, and reinforced through homework reading, and interesting labs that relate to everyday life.

Semester B

This is an introduction to the Physical Sciences and scientific methodology. The objectives are to impart a basic knowledge of the physical properties and chemistry of matter. Skills are developed in the classroom, and reinforced through homework reading, and interesting labs that relate to everyday life.

WORLD LANGUAGES

SPANISH 1

Spanish 1, Semester A, is an introduction to Spanish language and culture. Students learn to start with the basics of greetings and basic conversation, working to incorporate ideas from their life and experiences in Spanish conversation. This will be accomplished through written and verbal expression of the Spanish language.

Building upon Semester A, Spanish 1 Semester B expands to asking questions and conversational Spanish throughout one's neighborhood and daily life. Through real-life scenarios and learning examples, students will describe situations, in Spanish, both verbally and written.

SPANISH 2

Students build upon the foundation developed in Spanish 1. They continue to build vocabulary, learn new verb tenses and other grammar concepts, and they increase their ability to communicate with others. They learn new concepts, like reflexive verbs, infinitive expressions, commands, the imperfect tense. Semester B will continue building on vocabulary, grammar concepts and communicating effectively in the target language. You will explore new countries where Spanish is spoken and continue to keep abreast of current events in the Spanish-speaking world.

PHYSICAL EDUCAITON

To improve and maintain optimum health, it is necessary for people of all ages to participate in physical exercise. There is little doubt that, in addition to students in schools, the number of adults participating in sports and recreational activities in the United States has increased in recent years. Physical education is much more than just fitness and exercise. A well-planned program will cause you to think and express your emotions about different situations. In addition, a good program can make a valuable contribution to your education. These experiences will help you develop a sense of wellness.

Emphasis in this course is placed on the value of these sports as possible lifetime activities and on creating a clear explanation of the rules and basic principles of a variety of sports. The sports covered in this course are archery, bicycling, golf, skiing, tennis, volleyball, baseball, basketball, football, hockey, and soccer.

Information about the playing area and equipment, basic rules, safety considerations, and terminology for each sport are included in the discussions. For the most part, the information presented in each lesson applies to sports programs throughout most sections of the United States.

MIDDLE SCHOOL ELECTIVES

- 2D Studio Art **
- Career Explorations 1**
- Career Explorations 2**
- Character Education
- Coding 1A**
- Coding 1B**
- College & Career Readiness 6, 7, & 8
- Computer Basics
- Digital Arts & Design**
- Fitness**
- Game Design 1A**
- Game Design 1B**
- Health
- Journalism**
- Study Skills

** Class is available through eDynamics