Madison City Schools

Middle School Course Catalog

JOURNEY JAGUARS

Where Learning is a Journey, Not a Destination

LIBERTY MIDDLE SCHOOL

Opening the Door to the Future

School Year 2022-2023

Dr. Edwin C. Nichols Jr., Superintendent
Mr. Eric Terrell, Assistant Superintendent
Dr. Heather Donaldson, Chief Academic Officer
Mr. Jamie Hill, Principal, Discovery Middle School
Dr. Treva Stewart, Principal, Journey Middle School
Mr. Shannon Brown, Principal, Liberty Middle School

All students in the 6th, 7th, and 8th grade will be enrolled in the following courses: English Language Arts, Social Studies, Math, Science, 9 Week PE, and electives. Since course selection is based on your pre-registration, please read the course descriptions carefully and make a firm commitment to the courses you mark on the course selection form. Changes will only be made if a school error exists. Efforts will be made to schedule all courses, including alternates, in priority order. Students will be notified when they can view their schedules online.

Important Dates for School Year 2022-2023

Discovery Middle School Dates

- February 8th – Parent University
- February 11th – Registration packets due for all students

Journey Middle School Dates

- February 1st – Parent University - Liberty Gym for all Journey students, 5pm for rising 6th graders, 6:30 pm for rising 7th & 8th graders
- February 11th – Registration packets due, all students

Liberty Middle School Dates

- February 2nd – Parent Universities
- February 7th – Rising 6th grade Parents/Guardians Coffee with the Counselors (7:30am -12:30 pm) – LMS Media Center *
- February 8th – Rising 7th grade Parents/Guardians Coffee with the Counselors (11:00am – 12:30pm) – LMS Media Center*
- February 9th – Rising 8th grade Parents/Guardians Coffee with the Counselors (11:00am – 12:30 pm) – LMS Media Center*
- February 11th – Registration packets due, all students

*Must sign up for a time slot.

Table of Contents

Frequently Asked Questions

What is AVID?
AVID, which stands for Advancement Via Individual Determination, is a college-readiness program that places a strong emphasis on growing writing, critical thinking, teamwork, organization, and reading skills – all skills needed to prepare students for academic success.

How can I learn more about AVID?
If parents or students have any additional questions about the AVID program, they should reach out to their school counselor or school administrator.

Where can I find information on my child's summer reading assignments?
All summer reading assignments are posted to our website during the spring. You can view this page here.

What is Finite Mathematics?
This is a dual enrollment course that does not take place during the school day (i.e. it does not "replace" an elective) and that is fully funded by the student.

When is Open House and when can I get my child's schedule?
These dates will be published at a later date via social media and school websites.

Why does middle school have a rotating block schedule?
Research has shown that students perform better in some courses at different times of the day and a rotating block allows all students to access courses at their peak learning time.

Bell Schedule

A Block	8:15 - 9:29
Break	9:29 - 9:39
B Block	9:39 - 10:53
Transition	10:53 - 10:57
C Block	10:57 - 12:44
Transition	12:44 - 12:48
D Block	12:48 - 2:02
Transition	2:02 - 2:06
E Block	2:06 - 3:20

Lunch A	11:01 - 11:22	**Lunch B**	11:27 - 11:48
Lunch C	11:53 - 12:14	**Lunch D**	12:19 - 12:40

Weekly Rotation of Blocks

Week 1	Week 2	Week 3	Week 4
A Block	E Block	B Block	D Block
B Block	D Block	A Block	E Block
C Block	C Block	C Block	C Block
D Block	B Block	E Block	A Block
E Block	A Block	D Block	B Block

***C Block = Lunch Block**

6th Grade Core Course Descriptions

Language Arts 6
Year Course
Grade 6
Language Arts 6 is based on the Alabama Course of Study Standards for 6th Grade. The course will continue students' growth in literacy skills and the application of those foundational literacy skills: reading strategies, critical thinking, vocabulary building, research skills and effective writing.

Honors Language Arts 6
Year Course
Grade 6
6th Grade Honors Language Arts is a learning environment which requires students to engage more independently in critical thinking skills in class and at home. The course will continue students' growth in literacy skills and the application of those foundational literacy skills: reading strategies, critical thinking, vocabulary building, research skills and effective writing.

Math 6
Year Course
Grade 6
Math 6 is based on the Alabama Course of Study Standards for 6th grade. Concepts will include, but are not limited to ratios and rates, rational numbers, expressions and equations, geometrical reasoning, and statistics. Students gain a deeper understanding of math concepts by narrowing their focus to fewer topics. Students who successfully complete this course will be ready for Math 7.

Accelerated Math 6
Year Course
Grade 6
Accelerated Math 6 is based on the Alabama Course of Study Standards for 6th grade. This more in-depth course is designed for students who desire the opportunity to take Accelerated Math 7. Concepts will include, but are not limited to ratios and rates, rational numbers, expressions and equations, geometrical reasoning, and statistics.

Math Team Accelerated Math 6
Year Course
Grade 6
Fee: **There will be fees associated with this class for tournament costs. Saturday tournament attendance is expected, and the schedule is to be determined.*
Math Team Accelerated 6 is based on the Alabama Course of Study Standards for 6th grade. Concepts will include, but are not limited to ratios and rates, rational numbers, expressions and equations, geometrical reasoning, and statistics. Students in Math Team Accelerated Math 6 are expected to apply all skills learned at a higher level of conceptual understanding. Students who successfully complete this course will be prepared for Math Team Accelerated Math 7 and on the pathway for placement into Math Team Accelerated Math 8. Students will be expected to attend weekend competitions.

Earth & Space Science 6
Semester Course
Grade 6
This course focuses on three core ideas of Earth and Space Science: Earth's place in the universe, Earth's systems, and Earth and human activity. In this course, students will be encouraged to make inquiries regarding Earth and Space Science and relate them to the world around them. Some areas of study include geologic processes, human impact on the environment, the composition of Earth's core, objects of the solar system, and changes in human population based on Earth's systems. Students will utilize laboratory experiments and inquiry activities to deepen their understanding of the concepts.

Social Studies 6
Semester Course
Grade 6

This class provides constant opportunities for students to explore prior knowledge and opinions as they focus on the history of the United States from the Industrial Revolution to the present. An emphasis is placed on economic, geographic, and historic changes that have influenced every aspect of life during historical events, such as the rise of the United States as an industrial nation, World War I and II, the Great Depression, and the Cold War. Students will experience cooperative learning, large and small group discussions, hands-on activities, and they will be exposed to primary sources, as they learn about the reorganization of national boundaries and the movement of the United States into the role of world leader.

7th Grade Core Course Descriptions

Language Arts 7
Year Course
Grade 7

Language Arts 7 is based on the Alabama Course of Study Standards for 7th grade. Student learning will be focused on analyzing various texts, expressing personal views, supporting various points of view through various modes of writing, participating in thoughtful discussions, and practicing digital citizenship. The course helps transition students from a focus of building foundational literacy skills to the application of those skills in order to read and respond effectively to various types of literature.

Honors Language Arts 7
Year Course
Grade 7

7th Grade Honors Language Arts is a learning environment which requires students to engage more independently in critical thinking skills in class and at home. Language Arts 7 is based on the Alabama Course of Study Standards for 7th grade. The course helps transition students from a focus of building foundational literacy skills to the application of those skills in order to read and respond effectively to various types of literature.

Math 7
Year Course
Grade 7

Math 7 is based on the Alabama Course of Study Standards for 7th grade. Concepts will include, but are not limited to: rational numbers, proportional reasoning, equations and expressions, 2D and 3D Geometry, statistics and probability. Students gain a deeper understanding of math concepts by narrowing their focus to fewer topics. Students who complete this course will be ready for Math 8.

Accelerated Math 7
Year Course
Grade 7

This fast-paced course is designed for students who desire the opportunity to take Accelerated Math 8 next year. Students will be taught the Accelerated Math 7 course of study. Concepts will include, but are not limited to: rational numbers, proportional reasoning, exponents, multi-step equations and inequalities, algebraic expressions, linear equations, linear functions, 2D and 3D Geometry, statistics and probability. ***This course is required for students that desire to be placed in Accelerated Math 8 next year.***

Math Team Accelerated Math 7
Year Course
Grade 7

Fee: **There will be fees associated with this class for tournament costs. Saturday tournament attendance is expected, and the schedule to be determined.*

This fast-paced course is designed for students who desire the opportunity to take Math Team Accelerated Math 8 next year. Students will be taught the Accelerated Math 7 course of study. Concepts will include, but are not limited to: rational numbers, proportional reasoning, exponents, multi-step equations and inequalities, algebraic expressions, linear equations, linear functions, 2D and 3D Geometry, statistics and probability. Students who successfully complete this course will be prepared for Math Team Accelerated Math 8. Students will be expected to attend weekend competitions. Students in Math Team Accelerated Math 7 are expected to apply all skills learned at a higher level of conceptual understanding. ***This course or Accelerated Math 7 is required for students that desire to be placed in an accelerated math course next year.***

Life Science 7
Semester Course
Grade 7
This course focuses on life science. Students are encouraged to develop an appreciation of the importance of diversity of life, while simultaneously understanding the impact of their roles as individuals in the community of life. Some areas of study include characteristics of life, cell structure and processes, DNA, human body systems, Mendel's Laws of Inheritance (genetics), and ecology. The focus of this course prepares students for biology and other life science courses taken in high school. Students are involved in laboratory experiments for a deeper understanding of the concepts.

Civics
9 Weeks Course
Grade 7
In this course students explore the role of citizens in the United States. The curriculum addresses representative democracy, law, personal economics, and civil responsibility.

Geography
9 Weeks Course
Grade 7
In this course students increase their knowledge of the physical nature of the world and of the relationships between people and their environments. They also study geography in the context of economics, politics, and culture.

8th Grade Core Course Descriptions

Language Arts 8
Year Course
Grade 8

8th Grade Language Arts focuses student learning to help students prepare for college and future careers based on the standards outlined in the Alabama Course of Study. The course focuses on analyzing different types of texts, making connections through reading different types of literature and informational texts, experiencing the writing process with modes of writing, participating in thoughtful discussions with peers, and practicing digital citizenship.

Honors Language Arts 8
Year Course
Grade 8

8th Grade Honors Language Arts is a learning environment which requires students to engage more independently in critical thinking skills in class and at home. This course focuses student learning to help students prepare for college and future careers. The foundation for 8th Grade Honors Language Arts is the Alabama Course of Study for English Language Arts. The standards focus on analyzing different types of texts, making connections through reading different types of literature, experiencing the writing process with modes of writing, and practicing digital citizenship.

Math 8
Year Course
Grade 8

Math 8 is based on the Alabama Course of Study Standards for 8th grade. Concepts will include, but are not limited to: number theory, laws of exponents, algebraic expressions, slope-intercept form, linear functions, systems of linear equations, Pythagorean Theorem, and data collection and analysis.

Accelerated Math 8
Year Course
Grade 8

This Accelerated Grade 8 course has been carefully aligned and designed for middle school students who have completed the Grade 7 Accelerated course and show particular motivation and interest in mathematics. In Accelerated Math 8, there are five domains: The Number System, Expressions and Equations, Functions, Geometry, and Statistics and Probability. The algebra focus is on quadratic relationships. Students who successfully complete this course will be prepared to enter Geometry with Descriptive Statistics in Grade 9 and then accelerate directly into Algebra II with Inferential Statistics in Grade 10, thus providing them with an opportunity to take additional, specialized mathematics coursework, such as AP Calculus or AP Statistics.

Math Team Accelerated Math 8
Year Course
Grade 8

Fee: *There will be fees associated with this class for tournament costs. Tournament attendance is expected, and the schedule is to be determined.*

This Accelerated Grade 8 course has been carefully aligned and designed for middle school students who have completed the Grade 7 Accelerated course and show particular motivation and interest in mathematics. In Accelerated Math 8, there are five domains: The Number System, Expressions and Equations, Functions, Geometry, and Statistics and Probability. The algebra focus is on quadratic relationships. Students who successfully complete this course will be prepared to enter Geometry with Descriptive Statistics in Grade 9 and then accelerate directly into Algebra II with Inferential Statistics in Grade 10, thus providing them with an opportunity to take additional, specialized mathematics coursework, such as AP Calculus or AP Statistics. Students in Math Team Accelerated Math 8 are expected to apply all skills learned at a higher level of conceptual understanding.

Physical Science 8
Semester Course
Grade 8

This course focuses on physical science. The scientific process is used throughout the year with students developing laboratory skills and techniques through discovery-oriented experiments. The curriculum includes the study of atoms and bonding, chemical reactions, Newton's laws of motion, potential and kinetic energy, and mechanical and electromagnetic waves. The focus of this course is designed to prepare students for the physics and chemistry courses taken in high school.

World History 8
Semester Course
Grade 8

This course covers world history from the beginning of time to the year 1500 and is aligned with the Alabama Course of Study Social Studies Standards. Content standards for this grade incorporate the strands of economics, geography, history, and political science. The curriculum encompasses the migrations of early people, the rise of civilizations, the establishment of governments and religions, the growth of economic systems, and the ways in which these events shaped the world.

PreAP (Advanced Placement) World History 8
Semester Course
Grade 8

This course is designed to prepare 8th grade students for the transition into Advanced Placement World History in the 9th grade. The class covers the 8th grade Alabama Course of Study Social Studies Standards, Alabama College and Career Readiness Standards, and is aligned with the high school AP World History class. Students will be exposed to advanced document analysis, essay writing, and independent reading. The class requires a large amount of out of class preparation and follows the same guidelines as AP World History. The goal of the class is for students to learn, develop, and apply the skills necessary to be successful in AP World History, while also transitioning students to the rigor of an AP class. Please note this class is not a prerequisite for AP World History. Outside reading is required.

Academic Team Electives

***Depending on which Academic Team is selected, there will possibly be fees for supplies and tournaments.**

Greenpower Racing
9 Weeks Course
6th, 7th, and 8th Grade Students
Prerequisite: Application Process

Students plan, build, and test a Greenpower USA car for competitions. Students will learn about business disciplines in the engineering world focusing on leadership, engineering, promotion, presentation, testing, and safety. There is no fee for this course due to the expected fundraising efforts of the class. A competitive application process is required.

Scholars Bowl I
9 Weeks Course
6th Grade Students
Fee: $25

Scholar's Bowl I is an introductory class for 6th grade students. Students will become acquainted with the format and knowledge required to be academically competitive on the Scholars Bowl team. This class involves learning information from all areas of knowledge. Including but not limited to: geography, history, literature, science, fine arts, current events, popular culture, sports and more. Students will be tested on any and all learned materials as a means to prepare them for academic competition. Some students in this class will be expected to compete on a 6th grade competition team with most competitions occurring on Saturday mornings in schools throughout the state.

Scholars Bowl II
9 Weeks Course
7th and 8th Grade Students
Fee: $25

Scholars Bowl II is an advanced level class for 7th and 8th grade students. Students should be experienced in Scholars Bowl format and expectations through Scholars Bowl I. Students entering this class should have knowledge and quick recall of all major world capitals, important historical figures, science, literature, mathematics, and fine arts. Students in this class will be expected to compete on the competition teams, with most competitions occurring on Saturday mornings in schools throughout the state.

Science Olympiad
9 Weeks Course
6th, 7th and 8th Grade Students
Prerequisite: Application Process
Fee: $25

The students in this course will be a part of the Science Olympiad teams. This course will cover all science disciplines including earth science, life science, physical science, forensics, and advanced chemistry. Students will research topics to develop their understanding of all aspects of science. The class time will be devoted to actively seeking knowledge as well as identifying and developing students' strengths.

Introduction to Chess
9 Weeks Course
6th, 7th, and 8th Grade Students

This class is designed to teach chess to children who have no knowledge of the game. Students will learn pawn and piece movement as well as the fundamentals of the beginning, the middle, and the end of the game. Students will use actual chess pieces as part of the practical instruction in addition to viewing demonstrations, both live and recorded.

Competition Chess
9 Weeks Class
6th, 7th, and 8th Grade Students
Chess is the classic game that develops spatial thinking and strategies and builds focused concentration. The class is geared for the more advanced level chess players. Intermediate and advanced players learn sophisticated combinations and strategies and advanced opening moves. Students compete in various tournaments outside of school.

Career and Technical Education (CTE) and STEM Electives

Computer Science for Innovators and Makers – *Project Lead The Way*
9 Weeks Course
6th, 7th and 8th Grade Students
Computer Science for Innovators and Makers teaches students that programming goes beyond the virtual world into the physical world. Students are challenged to creatively use sensors and actuators to develop systems that interact with their environment. Designing algorithms and using computational thinking practices, they code and upload programs to microcontrollers that perform a variety of authentic tasks. CSIM broadens students' understanding of computer science concepts through application.

CodeSpace – *Introduction to Python*
9 Weeks Course
7th and 8th Grade Students
Prerequisite: Computer Science for Innovators and Makers
Fee: $10
CodeSpace - Introduction to Python introduces students to the fastest growing programming language in industry. Python is a text-based coding language with the curriculum for the course centered around project based learning (PBL). Students will learn to write Python code and utilize Micro:Bit microcontrollers to create projects that have relevant, real world applications. Students will be challenged to be creative and innovative as they collaboratively design and develop solutions to engaging authentic problems.

App Creators – *Project Lead The Way*
9 Weeks Course
7th and 8th Grade Students
Prerequisite: Computer Science for Innovators and Makers
App Creators introduces students to the field of computer science and the concepts of computational thinking, through the creation of mobile apps. Students are challenged to be creative and innovative, as they collaboratively design and develop mobile solutions to engaging authentic problems. Students experience the positive impact of the application of computer science to society as well as other disciplines, particularly biomedical science.

Design and Modeling – *Project Lead The Way*
9 Weeks Course
6th, 7th and 8th Grade Students
Fee: $10
Students discover the engineering design process and develop an understanding of the influence of creativity and innovation in their lives, while solving problems. They are then challenged to apply what is learned throughout the unit to design a therapeutic toy for a child who has Cerebral Palsy. Students will also learn the importance of effective communication of a design solution, the importance of team norms in a collaborative setting, and the critical role documentation plays in each step of the design process.

Automation and Robotics – *Project Lead The Way*
Semester Course
7th and 8th Grade Students
Fee: $25
Students will apply the design process to solve problems and understand the influence of creativity and innovation in their lives. By working in teams, students will work on designs of various projects from local businesses and learn how to create ideas for their engineering notebooks. Students will create designs in their engineering notebooks and learn how to build and program real-world objects such as traffic lights, toll booths, and robotic arms. Students will be using VEX Robotics equipment to build their designs.

Energy and the Environment – *Project Lead The Way*
9 Weeks Course
7th and 8th Grade Students
Fee: $10
Students are challenged to think big and toward the future as they explore sustainable solutions to our energy needs and investigate the impact of energy on our lives and the world. They use what they've learned to design and model alternative energy sources, as well as evaluate options for reducing energy consumption. The course is divided into three sections with a hands-on-project at the end of each section. These projects include designing and building wind turbine blades and dwellings to protect ice from direct heat sources.

Engineering Essentials - *Project Lead The Way*
Semester Course
8th Grade Students
Fee: $20
Engineering Essentials will offer a multidisciplinary approach to teaching and learning foundational concepts of engineering practice, providing students opportunities to explore the breadth of engineering career opportunities and experiences, and solve engaging and challenging real-world problems through engineering essentials. By inspiring and empowering students with an understanding of engineering and career opportunities, Engineering Essentials will broaden participation in engineering education and the engineering profession.

Flight and Space – *Project Lead The Way*
9 Weeks Course
7th and 8th Grade Students
Fee: $10
The exciting world of aerospace comes alive through Flight and Space. Students explore the science behind aeronautics and use their knowledge to design, build, and test gliders, hot air balloons, model rockets and Mars Rovers. Custom built simulation software allows students to experience to move beyond a classrooms four walls.

Green Architecture – *Project Lead The Way*
9 Weeks Course
7th and 8th Grade Students
Fee: $10
Today's students have grown up in an age of "green" choices. In this class, students learn how to apply this concept to the fields of architecture and construction by exploring dimensioning, measuring and architectural sustainability as they design affordable housing units using AUTODESK's 3D Architectural design software.

Magic of Electrons – *Project Lead The Way*
9 Weeks Course
7th and 8th Grade Students
Fee: $10
In this class, students examine the behavior and parts of atoms as well as the impact of electricity on the world around them. They learn skills in basic circuitry design and use what they know to propose authentic designs.

Introduction to Careers in Healthcare
9 Weeks Course
6th and 7th Grade Students

Introduction to Careers in Healthcare is the first of a three course sequence* and introduces the terminology, careers, history, basic skills, and technologies associated with each pathway in the Health Science career cluster. Instruction is provided in a classroom laboratory setting using hands-on experiences with the equipment, materials, and technology appropriate to the course content. *The three course sequence is not required and each course of the three course sequence may be taken without a prerequisite.

Medical Detectives – *Project Lead The Way*
9 Weeks Course
7th and 8th Grade Students
Prerequisite: Life Science
Fee: $10

Medical Detectives (MD) is the second of a three course sequence* that explores the biomedical sciences through hands-on projects and labs that require students to solve a variety of medical mysteries. Students investigate medical careers, vital signs, diagnosis and treatment of diseases, as well as human body systems such as the nervous system. Genetic testing for hereditary diseases and DNA crime scene analysis put the students in the place of real life medical detectives. *The three course sequence is not required and each course of the three course sequence may be taken without a prerequisite.

Orientation to Health Science
Semester Course – No High School Credit
8th Grade Students

Orientation to Health Science is the third course in a three course sequence* that is intended to assist students in making informed decisions regarding their college and career goals. Students will be given the opportunity to apply knowledge and skills related to the Health Science cluster. The course also includes information concerning the practices for promoting health, wellness, and disease prevention. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials, and technology appropriate to the course content and in accordance with current practices. *The three course sequence is not required and each course of the three course sequence may be taken without a prerequisite.

Computer Science Essentials – *Project Lead The Way*
Semester Course – No High School Credit
8th Grade Students
Fee: $10

Computer Science Essentials will expose students to a diverse set of computational thinking concepts, fundamentals, and tools, allowing them to gain understanding and build confidence. In Computer Science Essentials, students will use visual, block-based programming and seamlessly transition to text-based programming with languages such as Python to create apps and develop websites, and learn how to make computers work together to put their design into practice. They'll apply computational thinking practices, build their vocabulary, and collaborate just as computing professionals do to create products that address topics and problems important to them. Computer Science Essentials helps students create a strong foundation to advance to Computer Science Principles, Computer Science A, and beyond.

Science of Technology – *Project Lead The Way*
9 Weeks Course
7th and 8th Grade Students
Fee: $10

Science impacts the technology of yesterday, today, and the future. Students apply the concepts of physics, chemistry and nanotechnology to STEM activities and projects: making ice cream, cleaning up an oil spill, discovering the properties of nano-materials, constructing a rollercoaster, and participating in the annual National Rube Goldberg Competition.

STEM
9 Weeks Course
6th and 7th Grade Students
Fee: $10
Career and Technical Education (CTE) is a blend of academic, career-specific, general workplace, and life skills leading to further education and preparation for employment. Students will use cooperation, collaboration and communication to solve real or fictitious problems. They will outline the specifics of the problem, conduct design research to see what solutions are already present, draft a solution, and then build and improve their product. Once the product is complete, they will share their ideas, their plan, and their design conclusion with their classmates. While participating in the problem-based learning activities, students will also be coached on management and work/life skills such as delegating tasks, effective communication techniques, and time management to meet a deadline. After completing this course, students have organically been exposed to science and math concepts, but they also have a strong understanding of the Engineering Design approach as well as synergizing group dynamics.

Career Preparedness – High School Credit 1.0
Semester Course
8th Grade Students
A one credit course that prepares students with knowledge and skills in the areas of career development, academic planning and computer skill application. The required 20-hour online experience can be met by successfully completing this course. ***The final grade is calculated in the student's high school GPA. Upon successful completion of Career Preparedness, the student receives 1.0 credit towards graduation.***

Fine Arts Electives

Introduction to Visual Arts
9 Weeks Course
6th, 7th & 8th Grade Students
Fee: $10
The purpose of this nine week course is to introduce students to a basic understanding of visual arts. Students will try different types of art media, like drawing and painting, while also learning about art appreciation, art history, and art criticism. This class is designed to help students engage their creativity as well as developing their art skills.

Visual Arts
9 Weeks Course
7th and 8th Grade Students
Prerequisite: Introduction to Visual Arts
Fee: $10
This course allows students to explore various media in the art curriculum. The curriculum is designed in a progressive manner, so that students build their skills and knowledge as they go through middle school. The students explore a wide range of topics and media throughout the term. Design, drawing, painting, and printmaking comprise some of the activities in which the students will be involved. Art shows, contests, and art history to expose the students' talents and build their self-esteem, while appreciating the work of their peers and artists from around the world.

Advanced Art
Semester Course
7th and 8th Grade Students
Prerequisite: Artwork submission required.
Fee: $10
This course is designed for the highly motivated art student and students preparing for high school visual arts. It is offered to students who have previously taken perquisite art courses and who had submitted the portfolio application. Students will focus on improving their technical art skills, realism, and creative expression by using a variety of media and art techniques.

3D Art / Sculpting Art
9 Weeks Course
7th and 8th Grade Students
Fee: $20
This course is a three- dimensional art course that will explore media such as clay, plaster, wire, metal, and wood. Clay projects will involve the study of modeling with pinching, coiling, and slab construction techniques. Students will study historical and contemporary examples of sculptures from various cultures.

Art – Interior Design
9 Weeks Course – DMS
7th and 8th Grade Students
Fee: $10
This course introduces students to the basics of interior decorating. By learning the application of the principles of design in an interior space, students will have the opportunity to develop and apply their creative problem solving skills while meeting the needs of each space and client. Students get to balance their creativity with real-world parameters such as clients' styles, floor plans, environments, and budgets.

Beginning Band
Year Course
6th, 7th and 8th Grade Students
Prerequisite: Attend Instrument Screening
Fee: $50/semester or $100 up front/year
Beginning Band is a year-long class designed for the student who has not played a band instrument before. Fundamentals of playing a musical instrument and accurate reading of music are stressed. Instruments must be provided by each student. Students must attend an instrument screening where the band director will help guide your student through the instrument selection process and provide information for purchasing or renting an instrument. Students in band are expected to participate in one evening concert each semester for a major portion of their grade.

Concert Band (Intermediate)
Year Course
7th and 8th Grade Students
Prerequisite: Audition Required
Fee: $50/semester or $100 up front/year
Concert band is designed for students that already know how to play an instrument. An audition is required. Instruments must be provided by each student. Students in Concert Band continue to develop and refine basic individual and ensemble skills as well as begin to learn more advanced concepts and elements of music. Students in Concert and Symphonic Bands are eligible for the (optional) spring band trip. Mandatory graded performances include (but are not limited to) one evening concert per semester, all home football games, one away football game, pep band performances, and the MPA (Music Performance Assessment) Competition.

Symphonic Band (Advanced)
Year Course
7th and 8th Grade Students
Prerequisite: Audition Required
Fee: $50/semester or $100 up front/year
Symphonic band is the top performing ensemble in the band program. Students in symphonic band continue to develop and refine individual and ensemble skills as well as begin to learn more advanced concepts and elements of music. An audition is required. Students in Concert and Symphonic Bands are eligible for the (optional) spring band trip. Mandatory graded performances include (but are not limited to) one evening concert per semester, all home football games, one away football game, pep band performances, and the MPA (Music Performance Assessment) Competition.

Jazz Band
Semester Course (Spring)
7th and 8th Grade Students
Prerequisite: One year of band experience and membership in Concert or Symphonic Band
Fee: $15
This course is designed as a complementary ensemble to the Concert and Symphonic Bands. Students must have at least one year of playing experience and must provide their own instruments. The Jazz Band will explore jazz elements in literature, while learning advanced playing techniques and fundamentals. The Jazz Band may perform at concerts, competitions, or festivals determined by the director.

Beginning Chorus
Year Course
6th Grade Students
Fee: $40
The Choral Music program is designed to enhance the musical creative and expressive qualities of all students. Beginning Chorus is a year-long ensemble open to all sixth grade students. Students in this choir will learn the fundamentals of singing and music theory through daily activities and practice. Students will also gain basic musical and historical knowledge. Students participate in daily rehearsals and perform in one mandatory evening concert per semester as well as various school assemblies and State Choral Performance Assessment. Optional Honor Choirs are available.

Intermediate Chorus
Year Course
7th and 8th Grade Students
Fee: $40
Intermediate Chorus is open to all 7th and 8th grade students. This course allows students who enjoy singing to strengthen and explore their voices through performance. The core curriculum emphasizes the basics of vocal technique, sight-reading, music theory, and music history while broadening listening skills and experiencing the interrelated nature of music with other cultures and content areas. Mandatory graded performances include one evening concert per semester, school assemblies and State Choral Performance Assessment. Optional Honor Choirs/All-State auditions are available.

Advanced Chorus
Year Course
6th, 7th and 8th Grade Students
Prerequisite: Audition Required
Fee: $40
Advanced Chorus is a course designed for highly motivated choral students to apply musical skills as they continue to create and experience performance through a choral ensemble. Students will continue developing mastery of solfege, major and minor scales, sight-singing and multi-part harmonies. Students will convey musical interpretation with the use of dynamics and phrasing, while incorporating facial expression and movement for refined presentation. Mandatory graded performances include one evening concert per semester, school assemblies and State Choral Performance Assessment. Optional Honor Choirs/All-State auditions are available.

Beginning Theatre
9 Weeks Course
6th, 7th and 8th Grade Students
This course will offer students exposure to basic theatre knowledge and acting skills. Students will build confidence and become more comfortable expressing themselves in front of others.

Intermediate Theatre
Semester Course
7th and 8th Grade Students
Prerequisite: Beginning Theatre
Fee: $50
Students are introduced to various aspects of performing. Topics will include: improvisation, pantomime, voice and diction, acting principles, make-up, short production skits, monologues and variety of dramas. Students conclude the semester course with a required one-act play production, which may occur after school.

Advanced Theatre
Semester Course
6th, 7th and 8th Grade Students
Prerequisite: Audition required
Fee: $50
This course will allow students to build upon foundations of vocal, kinesthetic, emotional, analytical, and intellectual elements of theatrical training through improvisation, dramatization, process-centered elements of dramatic performance, aesthetics, criticism, and history. In addition, this course will focus on one major production each semester. Students must either audition and be approved with a one minute monologue, or obtain instructor approval to register. After school productions and some rehearsals will take place at the high school auditorium and will be mandatory. Students may also be required to participate in fundraising for the program.

Technical Theatre
Semester Course - DMS
7th and 8th Grade Students
Prerequisite: Beginning Theatre
Fee: $15
This course is designed for highly motivated students preparing for high school theatre and competitions. It is offered for students who are interested and invested in pursuing non-performance theatrical roles or who wish to expand their understanding of the theatrical process. Students in the course will learn and practice the basics of design for costumes, sets, props, lights, and sound effects in addition to the procedures for stage management and box office positions. They will also receive practical experience with certain theatre technology such as spotlights, par-cans, microphones, and sound boards.

General Electives

AVID (Advancement Via Individual Determination)
Semester Course
6th & 7th Grade Students
Prerequisite: Application & Interview Process
Students will develop and reinforce attitudes, skills, and knowledge to successfully enter and complete a college prep academic program in high school. Students will learn and apply study skills and learning strategies to improve performance in the content areas: Note taking, outlining, writing, speaking, reading, test strategies and the use of technology to improve performance will be stressed.

Digital Publishing Tools
9 Weeks Course
6th, 7th and 8th Grade Students
Students will learn the fundamental concepts of word processing, spreadsheets and presentation software through a variety of software applications. The students will explore basic design concepts that will be utilized when creating a personalized digital portfolio that showcases

their academic work. Students will increase their computer competency and keyboarding skills for composing and creatively expressing ideas digitally. Digital citizenship concepts and skills will be taught throughout the class.

Innovations/Inquiry-Based Learning Class
Semester Course
7th and 8th Grade Students

This elective is in a project-based learning environment in which students create and develop ideas to grow a more successful and innovative future. Students will have the opportunity to lead their own passion projects for what they are most interested in. In this reflective and engaging elective course, students will be motivated to innovate by participating in hands on project based learning.

Innovative Explorations
Semester or Year Course
6th Grade Students
Fee: $10

This course is offered to students who are currently receiving gifted services at their current elementary school. This course is about finding and solving problems in the world. Students will utilize reflection, critical and creative thinking, problem solving, communication and creative expression, and research skills while working toward an innovative solution to a problem. This course also provides support of affective development in students from a gifted teacher.

Language Arts Electives

Composition Workshop
9 Weeks Course
6th, 7th and 8th Grade Students

This elective will provide an overview of the basic elements of modern English usage, such as spelling, parts of speech, capitalization, punctuation, subject/verb agreement, and correct pronoun usage. The course will include consistent writing experiences paying special attention to Madison City's writing curriculum, claim, data, commentary, and MLA formatting and citations. With the writing experiences, students will also participate in typing, drafting, editing, and revising. This course is offered to meet the need for a foundation in grammar, sentence structure, composition, and technological publishing skills for final writing projects.

Creative Writing I
9 Weeks Course
6th, 7th and 8th Grade Students

In this course, students will explore how writing expands our understanding of the world, its people, and one's self. Students will receive an overview of writing strategies including an emphasis on narrative structure, mechanics, and craft. Students will create a variety of original pieces that encompass multiple genres including poetry, narratives, micro fiction and much more. By the end of the course, students will understand that creative writing is a reflective, multi-step process that benefits from collaboration and feedback from others.

Creative Writing II
9 Weeks Course
7th and 8th Grade Students
Prerequisite: Creative Writing I

In this course, students will build on the skills that were introduced in Creative Writing I. Students will participate in Writing Workshop, where original pieces are revised through collaboration and productive feedback from other writers. Students will also focus on mentor texts to help guide their own writing process while focusing on specific writing strategies. By the end of this course, students will have created a portfolio of their own pieces from a variety of genres.

Digital Communications (Digcom)
Year Course—LMS
Semester Course—DMS & JMS
6th, 7th and 8th Grade Students
Fee: $10
Prerequisite: Application Process
In this course, students learn how to analyze media in print and digital forms to understand how messages are conveyed to audiences. Students learn how to script, storyboard, film, edit and produce digital media while leaving a positive footprint on the global digital community. They can choose to pursue projects such as reporting on various school happenings, creating PSAs, creating short films or moderating social media accounts.

Introduction to Public Speaking
9 Weeks Course
6th, 7th and 8th Grade Students
Students will participate in activities preparing them to speak effectively. Students will gain confidence, poise, and self-esteem. This course will include practice in vocal skills, organization, persuasion, and argument. Activities may include informative and persuasive speeches, readings from literature, and an introduction to debate.

Speech & Debate
9 Weeks Course
6th, 7th and 8th Grade Students
Fee: $10
Prerequisite: Introduction to Public Speaking
This course is designed to develop student competency in research, writing, speech, and debate skills. Discussions over the course of the term will include current events, historical legal cases and classic debate topics. Students will engage in various critical thinking activities including debates, speeches, presentations, and analytical writing. This course integrates listening, speaking, reading, writing, and grammar skills. Rudimentary research skills will be introduced and word processing skills taught. This course will cover a variety of speech and debate events as outlined by the National Speech and Debate Association such as, but not limited to, Lincoln-Douglas, Policy, Public Forum, Congressional Debate, and Speech events.

Reading Lab
Semester Course
6th, 7th and 8th Grade Students
Recommendation required by school based on data.
This course is designed for students who need support with reading related skills. For maximum success, parents, students, and academic support teachers communicate frequently to increase student success with these skills. Recommendation is determined by a student's academic performance and identified needs**. Students may be re-evaluated at the end of each grading period and, if recommended by the teacher, may be moved out of the class into another elective, or may remain in the class.**

Yearbook
Year Course
6th, 7th and 8th Grade Students
Prerequisite: Application Process
Fee: $10
Students create, design, and produce the school's yearbook; learn and use publishing tools; utilize desktop publishing skills; refine revising and editing skills; work under established deadlines; and create spectacular pictures by using PhotoShop. The yearbook staff may be required to stay after school on occasion in order to complete deadlines. Requirements for becoming a staff member are as follows: fill out an application, be interviewed by the adviser and present staff, and obtain three recommendations (one of which is the present English teacher).

Math Electives

Money! Money! Money! – Personal Finance
9 Weeks Course
7th and 8th Grade Students
Personal finance is a course designed to help students understand the impact of individual choices on occupational goals and future earnings potential. Real world topics covered will include income, money management, spending and credit, as well as saving and investing. Students will design personal and household budgets; simulate use of checking and saving accounts; demonstrate knowledge of finance, debt, and credit management; and evaluate and understand insurance and taxes. This course will provide a foundational understanding for making informed personal financial decisions.

Math Explore
9 Weeks Course
6th, 7th and 8th Grade Students
Math Explore is a project-based learning elective driven by student choice. Students have the opportunity to take responsibility for their own learning by selecting from several pathways to delve deeper into topics of interest. Through inquiry-based exploration, students will apply skills to real-world applications. A project (physical or digital) will be completed as part of the discovery learning process.

Math Meets Art
9 Weeks Course
6th, 7th and 8th Grade Students
This elective course focuses on the creative side of math, where students will combine several mathematical concepts and principles to create unique artwork. During the 9 weeks, students will draw, build, and observe 3 dimensional figures, learn how to create scale replicas and drawings, using transformations to design tessellations and mandalas, and explore the Pythagorean Theorem, the Sierpinski Triangle, Koch's Snowflake, and the Golden Ratio.

Math Lab
Semester Course
6th, 7th, and 8th Grade Students
Recommendation based on student data and identified needs.
This hybrid course supports students through the use of small group instruction and an interactive computer program. It focuses on number sense and fraction relationships. Placement in this class is based on academic need. **Students may be re-evaluated at the end of each grading period and, if recommended by the teacher, may be moved out of the class into another elective, or may remain in the class.**

Finite Mathematics
Semester Course
Dual Enrollment through partnership with UAH (College Credit)
8th Grade Students
Prerequisite / Corequisite: Accelerated Math 8
Fee: TBD
This online course provides an overview of topics in Finite mathematics together with their applications. Specifically, the course includes selected topics in: college algebra, sets and the algebra of sets (including the set operations and relations), logic and the algebra of logic (including logical operations and relations), combinatorics (including permutations and combinations), elementary probability (and its applications), and descriptive statistics. After completing this course a student should have a basic understanding of the topics listed, as well as improved ability to read, write, speak and think in mathematical terms. Students enrolled in this course will incur a dual enrollment fee and the cost of any required books/supplies. All monies will be paid to UAH and a dual enrollment application must be completed for this course. Please see counselor for additional information.

Physical Education Electives

All PE Options are 9 Weeks Courses
One 9 Weeks PE is required for all 6th, 7th, and 8th Grade Students
$25 PE Uniform/Equipment Fee Required

Fitness and Aerobics
7th & 8th Grade Students
This course will explore a variety of activities that incorporate the five components of fitness: cardiovascular endurance, muscular strength, muscular endurance, flexibility, and body composition. Students will be able to demonstrate the knowledge and skills to achieve and maintain a health-enhancing level of physical activity and fitness tactics using the FITT (Frequency, Intensity, Time, and Type) concepts.

Health and Wellness
7th & 8th Grade Students
This course will allow students to recognize the value of physical activity for health, enjoyment, challenge, self expression, and social interaction. The focus of this course is to equip students by recognizing and applying real-world connections on how to cope with daily stress, personal safety, and managing a healthy eating, active lifestyle. This course will include classroom work and discussions along with physical activities and exercise.

Indoor Recreational and Team Sports
6th, 7th & 8th Grade Students
This course will enhance students' ability to apply tactics and strategies to modified game play; demonstrate fundamental movement skills in a variety of contexts; select and participate in physical activity; cooperate with and encourage classmates; accept individual differences and demonstrate inclusive behaviors; and engage in physical activity for enjoyment and self-expression. Students will participate in daily exercise, stretching, cardiovascular activities and weekly units of recreational and team sport concepts. The majority of this course will be held indoors.

Outdoor Recreational and Team Sports
6th, 7th & 8th Grade Students
This course will enhance students' ability to apply tactics and strategies to modified game play; demonstrate fundamental movement skills in a variety of contexts; select and participate in physical activity; cooperate with and encourage classmates; accept individual differences and demonstrate inclusive behaviors; and engage in physical activity for enjoyment and self-expression. Students will participate in daily exercise, stretching, cardiovascular activities and weekly units of recreational and team sport concepts. The majority of this course will be held outdoors.

Weight Training and CrossFit - (Boys)
7th & 8th Grade Students
The students will learn the ten components of physical activity: Cardiovascular endurance/respiratory endurance, stamina, strength, power, speed, flexibility, agility, accuracy, balance, and coordination. The students will do a combination of CrossFit workouts and learn how to properly lift weights and maintain a healthy lifestyle.

Weight Training and CrossFit - (Girls)
7th & 8th Grade Students
The students will learn the ten components of physical activity: Cardiovascular endurance/respiratory endurance, stamina, strength, power, speed, flexibility, agility, accuracy, balance, and coordination. The students will do a combination of CrossFit workouts and learn how to properly lift weights and maintain a healthy lifestyle.

Strength and Conditioning - Level 1 – (Boys)
7th & 8th Grade Students
This course will include students using age appropriate weightlifting concepts along with basic anaerobic conditioning concepts. Throughout this course students will focus on **basic** weightlifting movements and techniques. The students will also be taught appropriate conditioning exercises.

Fall Strength and Conditioning Level II – (Boys)
7th & 8th Grade Students

This course will include students using age appropriate weightlifting concepts along with basic anaerobic conditioning concepts. Throughout this course students will focus on **more advanced** weightlifting movements and techniques. The students will also be taught appropriate conditioning exercises. Any male student athlete who participates in a fall sport is highly encouraged to register for this class.

Spring Strength and Conditioning Level II – (Boys)
7th & 8th Grade Students

This course will include students using age appropriate weightlifting concepts along with basic anaerobic conditioning concepts. Throughout this course students will focus on **more advanced** weightlifting movements and techniques. The students will also be taught appropriate conditioning exercises. Any male student athlete who participates in a spring sport is highly encouraged to register for this class.

Strength and Conditioning - Level I – (Girls)
7th & 8th Grade Students

This course will include students using age appropriate weightlifting concepts along with basic anaerobic conditioning concepts. Throughout this course students will focus on **basic** weightlifting movements and techniques. The students will also be taught appropriate conditioning exercises.

Fall Strength and Conditioning Level II – (Girls)
7th & 8th Grade Students

This course will include students using age appropriate weightlifting concepts along with basic anaerobic conditioning concepts. Throughout this course students will focus on **more advanced** weightlifting movements and techniques. The students will also be taught appropriate conditioning exercises. Any female student athlete who participates in a fall sport is highly encouraged to register for this class.

Spring Strength and Conditioning Level II – (Girls)
7th & 8th Grade Students

This course will include students using age appropriate weightlifting concepts along with basic anaerobic conditioning concepts. Throughout this course students will focus on **more advanced** weightlifting movements and techniques. The students will also be taught appropriate conditioning exercises. Any female student athlete who participates in a spring sport is highly encouraged to register for this class.

Science Elective

Environmental Explorations
9 Weeks Course - LMS
7th and 8th Grade Students
Fee: $10

Are you a field biologist trapped in a middle school body? Then this is the class for you! The Environmental Explorations elective encourages students to investigate the important roles of plant and animal life in our natural and native ecosystems by focusing on zoology, ecology, and botany. Students will discover, explore, and learn to identify native plant and animal species of North Alabama through various project-based activities and will investigate the ecological importance of these organisms in a functioning ecosystem. They will learn basic field biology sampling methods and use these methods to conduct research on plant and animal life surrounding the school. Students will also actively participate in the development and maintenance of Liberty's Outdoor Classroom, a vital component of environmental explorers everywhere!

World Language Electives

Survey of World Languages A (French, German, Mandarin Chinese, Latin)
Each course is 9 Weeks
6th and 7th Grade Students
Fee: $10
This survey course of French, German, Latin, and Mandarin languages will involve listening, speaking, reading, and writing skills involving familiar topics. Students will understand and respond to simple expressions. They will speak and write using learned vocabulary in this introduction to each of the languages and cultures that they will explore during the survey. A minimum of one survey of world language class is required for all sixth grade students.

Survey of World Language A (Spanish)
9 Weeks Course
7th and 8th Grade Students
Fee: $10
This survey course of Spanish language will involve listening, speaking, reading, and writing skills involving familiar topics. Students will understand and respond to simple expressions. They will speak and write using learned vocabulary in this introduction to the Spanish language and culture.

Survey of World Languages B (Latin, German, French, Mandarin Chinese, Spanish)
Each course is 9 Weeks
7th and 8th Grade Students
Prerequisite: Survey of World Languages A in Desired Language(s)
Fee: $10
This course will be a continuation of what students learned in Survey of World Languages A. The course will involve listening, reading, speaking, and writing skills that will be developed around known topics. Students will understand and respond to simple expressions. They will speak and write using learned vocabulary and experience a deeper understanding of the languages they have explored during the survey courses. Students will also learn more about countries and cultures where the languages are spoken.

Level I French—High School Credit 1.0
Year Course
8th Grade Students
Fee: $10
This course focuses on the language learner's ability to communicate about topics relating to themselves, such as self-description, basic needs, daily activities, preferences, everyday conversation, family, and friends. Students will read, listen to, speak, and write the target language at the novice level. Students will explore various aspects of target culture through authentic texts and speech, visuals, and hands-on learning. ***The final grade is calculated in the student's high school GPA. Upon successful completion of Level I French, the student receives a Carnegie Unit towards graduation.***

Level I German—High School Credit 1.0
Year Course
8th Grade Students
Fee: $10
This course focuses on the language learner's ability to communicate about topics relating to themselves, such as self-description, basic needs, daily activities, preferences, everyday conversation, family, and friends. Students will read, listen to, speak, and write the target language at the novice level. Students will explore various aspects of target culture through authentic texts and speech, visuals, and hands-on learning. ***The final grade is calculated in the student's high school GPA. Upon successful completion of Level I German, the student receives a Carnegie Unit towards graduation.***

Level I Latin—High School Credit 1.0
Year Course
8th Grade Students
Fee: $10

This course is structured around the Cambridge Latin series, which guides students through the experiences of ancient Roman life by reading stories in Latin at the novice level. Students will have the opportunity to explore many aspects of ancient culture, such as urban life, entertainment, mythology, gender and social issues, and government. Students will connect their own language and culture to Latin through vocabulary building and cultural analysis. ***The final grade is calculated in the student's high school GPA. Upon successful completion of Level I Latin, the student receives a Carnegie Unit towards graduation.***

Level I Mandarin Chinese—High School Credit 1.0
Year Course
8th Grade Students
Fee: $10

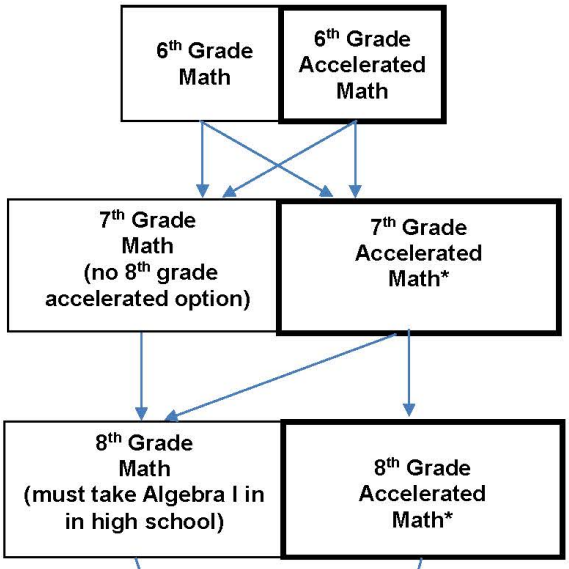
This course focuses on the language learner's ability to communicate about topics relating to themselves, such as self-description, basic needs, daily activities, preferences, everyday conversation, family, and friends. Students will read, listen to, speak, and write the target language at the novice level. Students will explore various aspects of target culture through authentic texts and speech, visuals, and hands-on learning. ***The final grade is calculated in the student's high school GPA. Upon successful completion of Level I Mandarin Chinese, the student receives a Carnegie Unit towards graduation.***

Level I Spanish—High School Credit 1.0
Year Course
8th Grade Students
Fee: $10

In this course students will progressively acquire the four basic language skills of speaking, listening, reading and writing using basic vocabulary expressions and beginning grammar concepts. The course will allow students to communicate at a novice level, while exploring the target culture. Students will also gain a better understanding of their own language and culture in order to participate in the global community. ***The final grade is calculated in the student's high school GPA. Upon successful completion of Level I Spanish, the student receives a Carnegie Unit.***

Appendix

Middle School Math Course Progression



High School Math Progression – First Math Course

(All 9th Graders)

***Students completing both 7th and 8th grade Accelerated Math may choose not to take Algebra I with Probability in high school; however, these students will not receive a high school credit for Algebra I with Probability (per ALSDE) and must take two additional courses beyond Geometry with Data Analysis and Algebra II with Statistics to complete the four credits required for graduation.**

Accelerated courses have thick borders around the course titles.

CAREER ACADEMY ALIGNMENT

PLTW Gateway Units	Related PLTW High School Course/Program	Career Fields
Design and Modeling	Intro to Engineering Design	Civil Engineer, Drafting & Design Engineer, Manufacturing Engineer
Automation and Robotics	Principles of Engineering Computer Integrated Manufacturing	Civil Engineer, Drafting & Design Engineer, Manufacturing Engineer, Manufacturing Technician, Millwork Draftsman
Energy and the Environment	Environmental Sustainability (not in MCS Eng. Academy)	Mechanical Engineer, Materials Scientist, Environmental Engineer, Biofuel Production Operator, Energy Manager, Geophysical Engineer, Chemical Engineer
Flight and Space	Aerospace Engineering	Aerospace Engineer, Physical Scientist, Life Scientist, Quality Control Inspector, Aerospace Model Technician, Aircraft Technician, Avionics Technician, Fabrication Technician, Engineering Technician
Green Architecture	Civil Engineering & Architecture	Construction and Architecture, Green Architect / Designer, Construction Laborer, Construction Manager, Energy Auditor, Civil Engineer
Magic of Electrons	Digital Electronics	Sound Engineering Technician, Electrical Engineer, Electronics Engineer, Electronics Engineering Technician, Electronics Service Technician, IT Consultant, Systems Analyst, Broadcast Engineer, Nuclear Engineer, Electronics Design Engineer
Science of Technology	Principles of Engineering	Nanotechnology Technology Engineer, Nanotechnology Engineering Technician (careers in industries such as electronics/semiconductor; materials science including textiles, polymers, and packaging; auto and aerospace industries; sporting goods; biotechnology; medical fields and pharmaceuticals; environmental monitoring; food science; forensics; energy capture and storage)
Computer Science Innovators & Makers App Creators	Computer Science Principles	Computer Science Analyst, Software Developer, Data Scientist, Computer Security Analyst, Cloud Administrator, Cybersecurity Architect, Software Test Engineer
Medical Detectives	Biomedical Science Academy	Physician Assistant, RN, Pharmacist, Anesthesiologist, Physical Therapist, Pharmacy Technician, Ultrasound Technician, Radiologist