

MACLAY

MIDDLE SCHOOL CURRICULUM GUIDE 2026-27



MACLAY MIDDLE SCHOOL LEADERSHIP

James Milford, Head of School

Barbara Rubio-Gomez, Middle School Director

Middle School Office (6-8)	850-893-4981
Admissions	850-893-7857
Athletic Department	850-668-2373
Clinic.....	850-893-5030
Information Technology.....	850-894-0911
Library	850-894-0816

MACLAY MIDDLE SCHOOL CURRICULUM

2026-2027 – Middle School Courses

CORE ACADEMIC COURSES

Language Arts

Grade 6 Math, Pre-Algebra, Algebra 1, Geometry

Earth Science/Geography, Physical Science, Life Science, Pre-AP Biology

Earth Science/Geography, Civics, American History

World Languages (*Spanish, Latin, or French*)

Physical Education (*Dance fulfills PE requirement*)

H.O.P.E. (Health Opportunities Through Physical Education) (*Upper School Credit – Course for 8th Graders*)

CAE Learning Support (*as requested*)

B.L.U.E. CLASSES/ENRICHMENT COURSES

(enrichment courses indicated with two asterisks are a full year)

FINE ARTS

Behind the Scenes: Costume & Make Up

Behind the Scenes: Set Design & Construction

Musical Theatre I **

Dance Techniques (Dance/PE - Level 1) **

Intermediate Dance (Dance/PE - Level 2) **

Advance Dance Performance & Competition **

Team (Dance/PE - Level 3/ 8th graders only) **

Strings I **

Middle School Strings II / Concert Band II

Ensemble (Concert Orchestra) **

Middle School Art Foundations

Drawing

Painting

STEM

Building with Bots (Grades 7 – 8)

Tech Design & Innovation (Grades 7 – 8)

Computer Science Discoveries (Grades 7 – 8)

Competitive Robotics I** (Grades 7-12)

Honors Competitive Robotics II ** (Grades 8–12)

iThinkers Competitive Math Team

DISCOVERY PROGRAMS

The Path to Discover Stem **

The Path to Discover Humanities **

OTHER PROGRAMS

Center for Academic Excellence – ACCESS
Program

MACLAY MIDDLE SCHOOL CURRICULUM COMPONENTS

6th GRADE

Language Arts
Mathematics
Earth Science & Geography
Speech and Communications
Foundations for Learning
World Languages: French, Latin, Spanish
Launch Wheel (PE, World Language, Electives, Wellness)
CAE Learning Support (*as requested*)

7th GRADE

Language Arts
Mathematics (Pre-Algebra, Algebra 1)
Physical Science
Social Studies (Civics)
World Languages: French, Latin, Spanish
Physical Education (Dance can replace PE)
B.L.U.E. Classes/Enrichment Courses
CAE Learning Support (*as requested*)

8th GRADE

Language Arts
Algebra I
Honors Geometry (*prerequisites apply; high school level course as it will appear on transcript*)
Life Science
Advanced Honors Biology (*prerequisites apply; high school level course as it will appear on transcript*)
Social Studies (American History)
World Languages: French, Latin, Spanish
H.O.P.E. (Health Opportunities through Physical Education)
B.L.U.E. Classes/Enrichment Courses
CAE Learning Support (*as requested*)

MACLAY 6TH GRADE ACADEMY

6th Grade Math

Sixth Grade Math builds a strong foundation in mathematical thinking and problem-solving by developing conceptual understanding, mathematical skills and processes, metacognition, and healthy attitudes related to math. Through hands-on activities, real-world applications, and collaborative problem-solving, students learn to explain their thinking, analyze patterns, and apply math concepts with confidence and perseverance.

6th Grade Language Arts

Sixth Grade Language Arts uses a workshop model to build a strong foundation in reading, writing, and language through engagement with a variety of text types and genres. Students develop critical reading strategies, apply skills for determining unknown words, and practice clear, organized writing for different purposes and audiences. Through discussion, collaboration, and creative expression, students learn to analyze texts, support ideas with evidence, and communicate thoughtfully and effectively.

Earth Science and Geography

The Earth Science and Geography course introduces students to the dynamic systems of the Earth and the ways humans interact with the physical world. Students explore topics such as landforms, weather and climate, natural resources, and Earth's processes while developing geographic skills like map reading, spatial thinking, and data analysis. Through hands-on investigations and real-world case studies, students learn how physical features shape environments, influence human activity, and connect regions across the globe.

Speech and Communication

Speech and Communications helps students develop clear, confident, and effective communication skills. The course focuses on writing for a variety of purposes and audiences while strengthening grammar and mechanics. Students practice verbal communication through discussions, presentations, and collaborative activities while learning to organize ideas, support opinions, and revise their work.

Foundations for Learning

Foundations for Learning builds the habits and tools needed for middle school success and as a foundation for a college preparatory education. The course focuses on executive functioning skills such as organization, time management, goal setting, and self-advocacy, alongside responsible and effective use of technology. Students learn digital literacy skills including typing, file management, online research, and digital citizenship. Through practical activities and reflection, students develop independence, accountability, and confidence in both academic and digital environments.

6th Grade World Languages

These semester-long courses introduce sixth grade students to the foundations of learning a new language while exploring the cultures where the language is spoken. Through interactive activities such as games, conversations, music, and cultural exploration, students begin to develop basic skills in listening, speaking, reading, and writing. The course emphasizes communication, curiosity about other cultures, and confidence in trying new words and phrases. Students will also build strategies for language learning that prepare them for continued study in middle school and beyond.

Introduction to Spanish

This is an introductory course focusing on listening and speaking with an emphasis on reading and writing skills. The course includes beginning vocabulary in a variety of situations, basic grammatical structures, and verb conjugations. Culture from a variety of Spanish-speaking countries is introduced.

Introduction to French

This is an introductory course focusing on listening comprehension and speaking skills, as well as reading and writing skills. The course includes beginning vocabulary in a variety of real-life contexts, basic grammatical structures, and verb conjugations. Students will learn about culture in France and a variety of francophone countries. Students will be able to hold a basic conversation and read/write French throughout the course.

Introduction to Latin

This course is an introduction to the Latin language, culture and history. Latin, with its unique patterns of inflection and syntax, and the acquisition of an extensive vocabulary, are the major focus of the course whose goal is the ability to read and translate effectively. Roman customs and culture, mythology, and English word derivations supplement the linguistic focus of the course.

Physical Education

Sixth Grade Physical Education promotes physical fitness, teamwork, and lifelong healthy habits through a variety of activities and games. Students develop fundamental movement skills, improve cardiovascular endurance, strength, and coordination, and learn the value of regular physical activity. Through team sports, individual challenges, and cooperative activities, students build confidence, sportsmanship, and collaboration skills.

Wellness

Wellness helps students develop habits and skills that support a healthy and balanced life during the important transition into middle school. Students explore topics such as social-emotional wellness, physical health, sleep, stress management, and emotional regulation. Through discussions, reflection, movement, and practical strategies, students learn how their bodies and minds work together and how to care for both. The course emphasizes self-awareness, healthy routines, and positive relationships while giving students tools to manage challenges and build resilience.

7TH - 8TH GRADE COURSE DESCRIPTIONS

LANGUAGE ARTS

Seventh Grade Language Arts

Seventh Grade Language Arts uses a reading and writing workshop model to develop skills in the areas of reading, writing, vocabulary, and grammar. Over the course of the year, students will read and write in a variety of genres to develop skills in reading comprehension, literary analysis, critical thinking, and effective written communication. Students are expected to select and read independent reading books throughout the school year in class and at home. The course will focus on building reading and writing literacies, habits, and stamina with the goal of promoting joy, empathy, and personal growth.

Eighth Grade Language Arts

Eighth Grade Language Arts blends creative and critical thinking with rigorous practice in literary analysis to prepare students for Upper School English while allowing for the exploration of diverse novels, short stories, and poems. Students are expected to select and read independent reading books throughout the school year and will engage in several whole class text studies. Students will express themselves critically, creatively, and collaboratively, as they interact with complex texts and build skills in reading, writing, vocabulary, and grammar.

MATHEMATICS

Pre-Algebra (Grade 7)

Pre-Algebra builds foundational skills to prepare students for Algebra 1 through a deeper study of geometry, statistics, probability, and algebraic reasoning. Students solve real-world and mathematical problems involving angle measure, area, surface area, and volume, including those involving cylinders, cones, and spheres. They draw, construct, and describe geometric figures, and develop an understanding of congruence, similarity, and the Pythagorean Theorem.

Students use random sampling to make inferences about populations, compare data sets, and investigate chance processes through probability models. Instruction includes work with irrational numbers, radicals, and integer exponents.

Emphasis is placed on proportional relationships, linear equations, and systems of linear equations. Students define, evaluate, and compare functions and use functions to model relationships between quantities. Throughout the course, students strengthen problem-solving skills and apply mathematical reasoning in meaningful contexts to prepare for Algebra 1.

Honors Algebra 1 (Grades 7 – 9)

Algebra 1 develops students' understanding of linear, quadratic, and exponential relationships through problem solving and real-world application. Students write, solve, and graph multi-step linear equations and inequalities, analyze linear relationships, and model real-world situations using multiple forms of linear equations. They explore systems of linear equations and inequalities, and interpret graphs to understand slope, intercepts, and how these features represent and inform solutions to real-world problems.

Students also extend their work with expressions by performing operations with and factoring polynomials and then applying these skills to solve quadratic equations. Data analysis is incorporated through scatter plots, measures of center, and interpretation of data displays to analyze real-world contexts. Emphasis is placed on problem solving, reasoning, and using linear and quadratic functions to represent and analyze relationships. Prerequisites: completion of Pre-Algebra with a C- or higher. Other considerations for rising 7th-grade students include teacher recommendations, placement assessment, and True Progress Data.

Honors Geometry (Grades 8 – 10)

Honors Geometry focuses on developing strong spatial understanding and advanced problem-solving skills through the study of geometric relationships. Students examine properties of lines, angles, triangles, quadrilaterals, and other polygons, and use coordinate methods to analyze and represent geometric figures. Transformations are used to explore congruence and similarity, including proportional reasoning and scale factors.

Students apply the Pythagorean Theorem, special right triangles, and trigonometric ratios to solve problems. The course also investigates circle relationships, area of two-dimensional figures, surface area, and volume of three-dimensional solids. Real-world applications are emphasized throughout to deepen conceptual understanding and prepare students for higher-level mathematics. Students who complete this course in 8th grade receive an Upper School credit which will be averaged into their Upper School GPA and appear on their transcript. Pre-requisites: Completion of Algebra 1 with a C- or higher. Other considerations for rising 8th-grade students include teacher recommendation, Algebra 1 End of Course Assessment, and completion of Algebra with a B- or higher.

SCIENCE

7th Grade Physical Science

Physical science provides students with the opportunity to construct scientific knowledge through the use of hands-on, minds-on activities in foundational physics and chemistry. The topics covered during this year-long course provide students with a firm basis for further scientific inquiry in all areas of science. Laboratory and problem-solving activities, as well as critical thinking tasks, are presented in an attempt to prepare students for the Upper School experience. Students are encouraged to learn laboratory safety skills, use calculators, keep organized lab notebooks, and complete experiments.

8th Grade Life Science

Science in eighth grade will focus on all aspects of life science. It is a rigorous, lab focused class that will explore cells, body systems, plant systems, relationships between organisms, and the environment. Students will learn how to collect and analyze data, collaborate with classmates, and research current questions/problems surrounding these topics. Students will continue to develop laboratory science skills and problem-solving skills that will enhance their Upper School experience.

Pre-AP Biology (Grades 8 – 9)

While the Pre-AP Biology framework is organized into four core units of study, the content is grounded in four big ideas, which are cross-cutting concepts that build conceptual understanding and spiral throughout the course. These ideas cut across all four units of the course and serve as the underlying foundation for the enduring understandings, key concepts, learning objectives, and essential knowledge statements that make up the focus of each unit. The four big ideas that are central to deep and productive understanding in Pre-AP Biology are: The process of evolution drives the diversity and unity of life. Growth and reproduction in biological systems are dependent upon the cycling of matter and the transformation of energy. Biological systems, occurring at various scales, respond and adapt to stimuli in order to maintain dynamic homeostasis. Genetic mechanisms are essential to maintaining biological systems. Co-Requisite: Enrollment in Geometry -- Prerequisites: Placement into Pre-AP Biology is based on a combination of 7th or 8th grade science and math grades, True Progress data, and placement tests.

SOCIAL STUDIES

7th Grade Social Studies – Civics

The seventh-grade social studies curriculum involves a study of American government—its history, structure, evolution, and role in our daily lives. The duties, rights, and responsibilities of all citizens in the United States are examined through the use of the class text and other activities. The fourth academic quarter focuses on Florida History.

8th Grade Social Studies – American History

This course offers a straightforward chronological history of North America. It will cover the colonization of America, the American Revolution, the beginning of a new Republic and the growth and changes that occurred. The course will also include a survey of current affairs and primary sources as they relate to historical events and other major events in U.S. History.

WORLD LANGUAGES

Honors Spanish 1

This is an introductory course focusing on listening and speaking with an emphasis on reading and writing skills. The course includes beginning vocabulary in a variety of situations, basic grammatical structures, and verb conjugations. Culture from a variety of Spanish-speaking countries is introduced.

Honors Spanish 2

This course is designed to follow Spanish I. Students will be challenged from day one to master the previous content and move forward to study grammar in an explicit as well as applied format. The course will interact with the history of Spain and Latin America to offer an application of liberal arts education to the study of language and culture. The class will be conducted in Spanish as much as possible and will provide a grammatical basis for students seeking to continue in Spanish, and emphasizes skills in conversational speaking, listening, writing, and reading and lead to Honors Spanish III.

Prerequisite: Successful completion of Spanish 1.

Honors Spanish 3

This class focuses on allowing students to implement much of the vocabulary and grammar mastered in Honors Spanish II. Students will learn more complex structures within the language. Listening, speaking, reading, and writing skills are emphasized as these more sophisticated grammar structures are implemented. Culture study and short narratives provide reading practice appropriate at this level. While students will be pushed to use the language at a higher proficiency level, Honors Spanish III is considered a “bridge year” that will help students transition from the skills learned in Honors Spanish II to the skills needed in Honors Spanish IV. Considering this transition, the second semester of the course will be taught primarily in Spanish and students will be expected to speak in Spanish during most of the class time. To help students develop proficiency with their interpersonal speaking skills in Spanish, they will be required to complete 3-4 conversations via the TalkAbroad program.

Prerequisites: Honors Spanish 2

Honors French 1

This is an introductory course focusing on listening comprehension and speaking skills, as well as reading and writing skills. The course includes beginning vocabulary in a variety of real-life contexts, basic grammatical structures, and verb conjugations. Students will learn about culture in France and a variety of francophone countries. Students will be able to hold a basic conversation and read/write French throughout the course.

Honors French 2

Students will review and continue to use skills acquired in Honors French I. We will build on our foundational work and continue to add verb tenses and a variety of high frequency and situational vocabulary words. Special attention will be paid to speaking, listening, reading and writing activities. Culture will be included throughout the year. At the conclusion of this class, students will be prepared to take Honors French III.

Prerequisites: Completion of Honors French 1

Honors French 3

This course provides an in-depth study of grammar while enriching the scope of vocabulary and authentic cultural exposure. Culture and literary passages are studied with the goal of improving reading, oral, and listening comprehension. Authentic resources will be used often, and students will have ample opportunity to express themselves in spoken and written French. Note: The course is designed to prepare the students for Advanced Honors French IV and AP French courses and is taught primarily in French.

Prerequisites: Honors French 2

Honors Latin 1

This course is an introduction to the Latin language, culture and history. Latin, with its unique patterns of inflection and syntax, and the acquisition of an extensive vocabulary, are the major focus of the course whose goal is the ability to read and translate effectively. Roman customs and culture, mythology, and English word derivations supplement the linguistic focus of the course.

No Prerequisites.

Honors Latin 2

This course is a continuation of Honors Latin I. By the end of the second semester, the student will have acquired all the grammatical knowledge necessary for the reading of original Latin texts. Extensive vocabulary development and experience in reading passages of increasing difficulty in mythology and Latin literature leave the student well equipped to approach the world of Caesar, Cicero, or Vergil. The course is supplemented with a focus on Roman history and culture, mythology, and English derivatives.

Prerequisites: Honors Latin 1

Honors Latin 3

This course is an introduction into reading original, unmodified Latin. The focus is on improving reading skills. The class will have a continuous review of all grammar and vocabulary learned in Latin I and II combined with extensive reading of several Latin authors. The student should leave Advanced Honors Latin III well prepared for Advanced Honors Latin IV or AP level work the following year.

Prerequisites: Honors Latin 2.

PHYSICAL EDUCATION

6th & 7th Grade P.E.

The Middle School Physical Education program is designed to encourage movement, physical fitness, and an appreciation of a variety of lifetime sports. Individual and team activities are used to help teach teamwork, sport-specific skills, and social skills used in all aspects of daily life.

H.O.P.E. (Health Opportunities through Physical Education) Upper School Credit for 8th Graders

This course is designed to help students develop the knowledge and habits needed to make healthy lifestyle choices and maintain lifelong physical fitness. Through a combination of physical activity and health education, students will learn how daily decisions impact their overall well-being. The course takes a comprehensive approach to wellness by combining movement, personal health education, and practical life skills. In addition to physical fitness activities, students will explore important health topics such as injury prevention and safety, internet safety, nutrition, personal health, disease prevention, and substance use awareness. The course also addresses topics that support students' emotional and social wellbeing, including resiliency, healthy relationships, and the prevention of teen dating violence.

B.L.U.E. (BALANCE OF LEARNING, UNDERSTANDING, AND EXPLORING) CLASSES/ ENRICHMENT OPPORTUNITIES

FINE ARTS

Behind the Scenes: Costume & Make Up

Step into the world of theatrical transformation! This hands-on course explores the art and craft of costume design and stage makeup, bringing characters to life from concept to creation. Students will learn the fundamentals of costume history, fabric selection, and design techniques while also mastering makeup application for theater, film, and special effects. Whether you dream of working on stage productions or film sets, this course will give you a backstage pass to the magic of costume and makeup artistry!

Behind the Scenes: Set Design & Construction

Bring stories to life by building the worlds they take place in! This hands-on course explores the fundamentals of set design, model building, and stage construction for theater and film. Students will learn drafting, painting, and carpentry techniques to create immersive environments. This course provides the skills to turn imagination into reality behind the scenes.

Musical Theatre I

This course introduces students to the exciting world of theatre and musical performance. Through creative play, ensemble-building activities, and hands-on exploration, students develop foundational acting, movement, and vocal skills. They will learn the basics of character creation, storytelling, improvisation, and stagecraft while building confidence and collaboration skills. Students explore musical theatre by learning introductory vocal techniques, simple choreography, and how to combine singing, acting, and movement to bring a story to life. The majority of the course involves creating, rehearsing, and performing musical numbers. Students perform solos, duets, trios, and ensemble numbers, and direct and choreograph for their classmates. Students will prepare for competitions, where they will showcase their talents and creativity to a wider audience. In addition to competitions, students will also participate in a variety of performances, including full-scale musical productions and showcases.

Dance Techniques (Dance/PE - Level 1)

This class is designed for beginner dance students. Students will learn/practice the basics of dance while learning to create and express themselves through improvisation, composition, and performance. Students study several styles of dance in their historical and cultural contexts, including ballet, modern, jazz, hip-hop, jazz/funk, tap and various cultural genres. Students will perform with the Dance Preparatory in school productions. Performances will take place in the Winter and Spring Showcases.

Intermediate Dance (Dance/PE - Level 2)

This class is designed for intermediate dance students. Students create and express themselves through improvisation, composition, and performance. Students study several styles of dance in their historical and cultural contexts, including ballet, modern, jazz, hip-hop, jazz/funk, tap and various cultural genres. Students analyze, compare, and contrast their work and critique their artistic development. Students will choreograph and perform in school productions. Students will perform with the Dance Preparatory in school productions. Performances will take place in the Winter and Spring Showcases. Note for US Students: this class fulfills graduation requirements for Visual/Performing Arts or PE credit.

Advance Dance Performance & Competition Team (Dance/PE - Level 3/ 8th graders only) **

This class is designed for advanced dance students. Students create and express themselves through improvisation, composition, and performance. Students will perform in several styles of dance in their historical and cultural contexts, including ballet, modern, jazz, hip-hop, jazz/funk, and various cultural genres. Students analyze, compare, and contrast their work and critique their artistic development. The Advance Dance class will perform as a part of the Dance Preparatory in the Winter Showcase and Perform with the Spring Showcase as well as participating in a regional dance competition. Note for US Students: fulfills graduation requirement for Visual/Performing Arts or PE.

Strings I

This course is open to beginning and returning violin, viola, cello, and bass players with one year or less of experience. In Strings I, we will establish all the strings fundamentals: correct playing position and bow hold, music literacy, ensemble skills, and home practice techniques. Through daily exercises, games, and performance of a variety of musical styles, we will learn to play beautifully and confidently. Students will have the opportunity to perform together throughout the year at school concerts. Strings I is a fantastic steppingstone to future participation in Concert Orchestra.

Middle School Strings II / Concert Band II Ensemble (Concert Orchestra)

This course is open to string, woodwind, brass, and percussion students with at least two years of instrumental study and/or ensemble experience. Placement is by audition and at the discretion of the director. Combining Strings II and Band II, this ensemble provides a unified, intermediate-to-advanced performance experience focused on strengthening foundational technique and advancing overall musicianship. Students will develop core skills including tone production, intonation, rhythmic accuracy, articulation, and instrument-specific techniques, reinforced through daily exercises, scale work, and diverse repertoire spanning classical and contemporary styles.

Emphasis is placed on ensemble skills such as balance, blend, listening, and musical expression, while fostering discipline, collaboration, and performance confidence. The ensemble will perform in school concerts and community events throughout the Tallahassee area, with opportunities to participate in district and state Music Performance Assessments (MPA). Students are also encouraged to audition for honor ensembles such as All-District and All-State and to pursue additional musical opportunities beyond the classroom.

Middle School Art Foundations

An introductory studio course focused on building essential artistic skills and visual literacy. Students develop foundational competencies in drawing, composition, color theory, and craftsmanship while working with a variety of traditional 2-D media. Emphasis is placed on observational skills, creative problem-solving, and understanding the elements and principles of design. This course establishes the technical groundwork and studio habits necessary for continued study in the visual arts.

(Grades 7 & 8)

Drawing

An introductory studio course designed to build fundamental drawing skills while exploring a range of traditional media. Students develop observational accuracy, proportion, value, and composition through work in pencil, charcoal, pen, and marker. Instruction emphasizes technical foundations, mark-making techniques, and material control. Through structured studies and finished works, students gain confidence in expressing themselves artistically.

(Grades 8 – 12)

Painting

An introductory painting course focused on developing foundational skills across a variety of media and techniques. Students explore watercolor, gouache, and acrylic while learning color theory, brush handling, layering methods, and surface preparation. Projects emphasize craftsmanship, color mixing, spatial depth, and expressive application. By working across multiple painting mediums, students build technical proficiency and an understanding of how material choices impact visual outcomes. Through structured studies and finished works, students gain confidence in expressing themselves artistically.

(Grades 8 – 12)

STEM

Building with Bots

The course will cover principles of robot design, engineering, troubleshooting, robotic sensors, and computer programming using the Lego Mindstorms Education software. Both a mathematical and an experimental approach are used in solving designed (and sometimes unexpected) problems and challenges. This class will be an open lab environment with hands-on learning, experimentation, and collaboration of ideas. Students will design, build, program, and troubleshoot their robots, utilizing them in a series of project-based activities and competitions – including elements from the FIRST LEGO LEAGUE Challenges, and a Robo Sumo battle competition/tournament where the creative design component really comes into play.

(Grades 7 – 8)

Tech Design & Innovation

Tech Innovation introduces a combination of coding, hands-on problem solving & computational thinking activities, and working with various technologies in creative and innovative ways. Through Design Thinking students identify real world problems and discuss possible solutions - ideation and creation of prototypes - transfer of an idea into a working model.

(Grades 7 – 8)

Computer Science Discoveries

CS Discoveries is an introductory computer science course designed to develop computational thinking with a focus on creativity, communication, problem solving, and fun. The course uses both blockly coding & programming languages to create a variety of innovative projects. It also covers the history of computing including Software/Hardware, Cloud Computing, the Internet of Things, and the Future of Computing and Technology, specifically AI and Machine Learning. There is a short unit on Digital Citizenship/Footprint, Internet Safety & Cyberbullying. Activities are flexible to accommodate customized learning and creative exploration. *Course is 9 weeks - can be repeated.*

(Grades 7 – 8)

Competitive Robotics I

Full-Year Course: Designed for 7-12 grade students who have a solid understanding of basic robotics concepts and are interested in taking their skills to the next level. This course focuses on preparing students for competitive robotics events, specifically the FIRST TECH CHALLENGE (FTC). Students will enhance their knowledge of advanced robotics principles, engineering design, computer aided design (CAD), 3D printing, programming, documentation, and teamwork in the process of preparing for the various challenges and tournaments – the ultimate Project Based Learning experience. Students will be expected to participate in the different robotics tournaments held throughout the year. This course prepares students for competitive robotics events and provides essential skills for pursuing careers in engineering, robotics, computer science, and technology.

Honors Competitive Robotics II

Full-Year Course: Designed for 8th - 12th grade students who have taken the Advanced/Competitive Robotics I course or who have participated on the competitive, after-school robotics club. This course builds on the skills necessary students need for competitive robotics events, specifically the FIRST TECH CHALLENGE (FTC). Students will enhance their knowledge of advanced robotics principles, custom design builds, testing procedures, game strategy, engineering design, computer aided design (CAD), 3D printing, programming, documentation, and teamwork. Students will be expected to participate in the different robotics tournaments held throughout the year. This course prepares students for competitive robotics events and provides essential skills for pursuing careers in engineering, robotics, computer science, and technology.

iThinkers Competitive Math Team

Our competitive math team together to solve complex mathematical problems and compete against other teams in various competitions. These teams typically consist of passionate and skilled math enthusiasts who thrive on challenging themselves and each other. Members often train, honing their problem-solving skills, mathematical intuition, and teamwork abilities. Competitions can range from local events to national.

DISCOVERY PROGRAM

Our Discovery Program is designed for our 7th and 8th grade students who wish to explore their passions. The Discovery program is designed to allow highly motivated learners to select a path to either discover STEM or discover Humanities further. Students will take a deep dive into their chosen path and will engage in projects. These projects provide authentic, real-world opportunities to strengthen research skills as well as written and oral communication, all while allowing students to engage deeply with topics that inspire them. This is a year-long program.

THE PATH TO DISCOVER STEM

STEM DISCOVERY: RESEARCH, DESIGN & ENGINEERING

This integrated STEM course engages students in solving real-world problems through environmental science, research, and engineering design. Students explore local environmental issues, collect and analyze data, and investigate sustainable solutions while connecting with community partners. Through hands-on projects, ArcGIS, and data analysis software, while strengthening critical thinking, research, and presentation abilities. They also design and test simple machines, explore robotics with motors and sensors, and apply basic programming. This course prepares students for advanced STEM pathways by building problem-solving skills, creativity, and real-world application.

THE PATH TO DISCOVER HUMANITIES

HUMANITIES DISCOVERY: JOURNALISM I

This integrated Humanities course invites students to explore their interests through communication, the arts, and creative expression, with a focus on journalism. Students engage in community-centered projects that use storytelling to build connection and cultural understanding while developing skills in design, photography, branding, and digital media.

Students are introduced to print and digital media through the study of reporting, writing, editing, photography, advertising, and design. They also explore the law, ethics, and history of journalism while gaining hands-on experience with industry tools and other computer-aided publishing platforms. These skills are applied through the creation of publications. With an emphasis on authentic audiences, students strengthen their writing by planning, revising, and incorporating research, while developing their individual voice. This course fosters creativity, communication, and critical thinking and serves as a prerequisite for the Journalism Core Concentration, preparing students to explore and excel in humanities pathways.

OTHER ENRICHMENT OPPORTUNITY

Trial Advocacy (8th Grade)

Fall Semester Only

This course will provide students with a general knowledge and understanding of the judicial process and basic civil and criminal procedures. It will develop organizational skills and understanding of conflict resolution through application of law. It will provide opportunities to practice constructing and testing logical arguments. It will develop litigation, public speaking, and critical thinking skills. It will facilitate team building skills and understanding of how the adversary system works in a competitive setting. Students will have an opportunity to participate in Mock Trial.

OTHER PROGRAMS

Center for Academic Excellence – ACCESS Program

For students who require a tailored approach to learning, the Center for Academic Excellence (CAE) offers a small-group course as an alternative to a world language or elective class. Students participating in this program receive focused support from a learning specialist who helps them reinforce concepts, review assignments, and develop their executive functioning skills. This course also promotes collaboration among students by facilitating discussions and encouraging students to engage with each other and the material. Sessions are designed to complement classroom instruction while remaining flexible enough to be responsive to the specific needs of the students.

This course is specifically designed for students experiencing difficulties with executive functioning, those diagnosed with a learning disability, or those with other identified needs that need additional support. Please note that enrollment in this program involves an additional fee. For more information on whether this program is suitable for your student, please contact cae@maclay.org.