



Middle School: STREAM Academy

Science, Technology, Reading, Engineering, Arts & Math

Description of Program

STREAM education is a curriculum focused on competencies and skills in the disciplines of (Science, Technology, Reading, Engineering, Art, and Math). STREAM brings together these areas to foster creativity, ingenuity, and innovation; innovation necessary for creating new jobs and industries in the future, especially in the Space Coast. The STREAM framework enables this generation to serve as architects of our future and not just exist in it. ***Stream is education for the Space Coast!***

Students will be instructed through:

- a blend of a traditional and project-based learning model
- learning through inquiry
- critical thinking
- Socratic seminar
- and problem-solving.

Technology:

- used daily as an integral part of the innovative learning experience
- a catalyst for digital literacy
- laptops
- SMART classrooms
- and an interactive environment.

STREAM Academy values small groups with individualized instruction. To support student individuality STREAM also offers unique educational tracks including

- ACE Aerospace track
- Art Innovation track
- STREAM track



Track Specification

- ACE Aerospace track - In partnership with Aerospace Center for Excellence students will explore STREAM with a focus on aerospace. This course will introduce students to the major areas of technology, as they support and advance the aerospace industry. Additionally, students will learn engineering design and problem-solving processes using manipulative skills, as they complete an array of interactive, team-based projects and build a portfolio demonstrating understanding and mastery of the course content. Finally, students will have the opportunity to learn in the field by visiting KSC, commercial airfields, and a variety of workshops with the [ACE](#) including their Flight Simulation Lab.
- Art Innovation track - In partnership with the Melbourne Art Studio and Students Guild of Brevard. This track focuses on innovation through art and combines the creativity of fine arts with the practical application of technology fostering a holistic approach to education. Students will focus on project-based learning and build portfolios to demonstrate a mastery of course content. Students will also attend monthly design workshops that allow them to expand their design knowledge and excel in all areas of STREAM.
- STREAM track - In partnership with the Ocean Research & Conservation Association (ORCA) and Orlando Science Center students learn through interdisciplinary instruction. Reading practice, art, math, and engineering, and science are woven into fields of study. Students are offered a variety of learning opportunities based on a student's ever-evolving interests. Students will engage in engineering design, computer science, robotics, 3D design, and problem-solving processes as they complete an array of interactive, team-based projects and build a portfolio. Students will have the opportunity to work in an open lab working on unique projects and presentations each quarter. They will also have the opportunity for field research and off-site labs.

Each track offers

- integrate subject matter
- hands-on experiential learning (including guest speakers)
- competitions
- field research opportunities
- engaging field expeditions.



STREAM Academy Courses:

● **Advanced-level core content classes**

Algebra I Honors (high school credit)

Geometry I (high school credit)

Biology 1 (high school credit)

Spanish 1 (high school credit)

American Sign Language 1 (high school credit)

Chinese 1 (high school credit)

French 1 (high school credit)

Hebrew 1 (high school credit)

Latin 1 (high school credit)

Digital Information Technology (high school credit)

● **Math**

M/J Grade 7 Mathematics

M/J Grade 8 Pre-Algebra

● **Science**

M/J Comprehensive Science 2 - Grade 7

M/J Comprehensive Science 3 - Grade 8

● **Language Arts**

M/J Language Arts 2 - Grade 7

M/J Language Arts 3 - Grade 8

● **Social Studies**

M/J Civics - 7th grade

M/J U.S. History - 8th grade

● **Elective classes**

Computer Science I

STREAM Seminar

Art Innovation Seminar

Aerospace Seminar

*PE/Health (required)

Band

Citizenship through Service Learning

Extracurricular activities include clubs, intramural sports, guitar, violin, and the National STEM Honor Society™.



Criteria for Eligibility

1. Must live in Brevard County
2. Required GPA 2.5 or higher and proficiency in all core content areas **OR**
3. Standard-based reporting of “Proficient” and/or “Exceeding” in all academic areas in the previous academic year.
4. Required FAST scores of a Level 3, 4 or 5 in Math, ELA and FCAT Science (based on most recent scores). Standardized Assessment Score (SAS) may also be used if FSA or FCAT is not available. If previously homeschooled students can take an assessment provided by STREAM Academy to exhibit proficiency.
5. Students must meet the STREAM Academy Code of Conduct, be approved by the administration, and not have significant behavioral concerns.
6. Current STREAM Academy students who apply and meet STREAM Academy enrollment criteria will be given priority registration.

Additional items needed with the application if not currently enrolled student must include the following information with their application:

- Report Card
- FAST, FCAT or a Standardized Assessment Score (SAS)
- Student file



2024 / 2025 Course Catalog

CORE CLASSES

Language Arts

M/J Language Arts 2 - Grade 7

Description

Through a theme of finding their voice, students in the MJ Language Arts 2 course study the ways in which word choice and sentence structure contribute to developing perspective. Students continue to develop the reading, writing, language, and speaking/listening skills necessary for success in college, career, and beyond with a strong connection to civics throughout the centuries. Students closely examine voice, purpose, diction, syntax, and rhetoric in historical speeches, informational texts, and classic and contemporary literature through guided readings, interactive practice, and formal assessments. They also grow their narrative, informational, and argumentative writing skills through the repeated practice of planning, drafting, revising, and editing their written work.

Follow the link below for the Department of Education description for this course:

<https://www.cpalms.org/PreviewCourse/Preview/17739>

M/J Language Arts 3 - Grade 8

Description

Through reading, writing, and rhetoric, students in the MJ Language Arts 3 course examine how authors fine-tune and utilize their craft to create texts with purpose. Students continue to develop the reading, writing, language, and speaking/listening skills necessary for success in high school, college, career, and beyond. Students evaluate and analyze voice, purpose, diction, syntax, and rhetoric in historical speeches, informational texts, and classic and contemporary literature through guided readings, interactive practice, and formal assessments. They also refine their narrative, informational, and argumentative writing skills through the repeated practice of planning, drafting, revising, and editing their written work.

Follow the link below for the Department of Education description for this course:

<https://www.cpalms.org/PreviewCourse/Preview/17740?isShowCurrent=false>



Mathematics

M/J Grade 7 Mathematics

Description

Key foundational concepts like proportional relationships, probability, and geometry will help prepare students for the next level of learning. Instructional time for Grade 7 Mathematics will emphasize five areas:

recognizing that fractions, decimals, and percentages are different representations of rational numbers and performing all four operations with rational numbers with procedural fluency
creating equivalent expressions and solving equations and inequalities
developing understanding of and applying proportional relationships in two variables
extending analysis of two- and three-dimensional figures to include circles and cylinders
representing and comparing categorical and numerical data and developing understanding of probability

Access the link below to view the standards from the Florida Department of Education:

<https://www.cpalms.org/PreviewCourse/Preview/17782>

M/J Grade 8 Pre-Algebra

Description

Students will strengthen their skills in topics like linear relationships, functions, and equations, and learn new skills that prepare them for Algebra 1. This course is designed with interactive learning and real-world activities to strengthen students' math muscles for the race ahead.

Instructional time for Grade 8 Mathematics: Pre-Algebra will emphasize six areas:

representing numbers in scientific notation and extending the set of numbers to the system of real numbers, which includes irrational numbers
generate equivalent numeric and algebraic expressions including using the Laws of Exponents
creating and reasoning about linear relationships including modeling an association in bivariate data with a linear equation
solving linear equations, inequalities, and systems of linear equations
developing an understanding of the concept of a function
analyzing two-dimensional figures, particularly triangles, using distance, angle, and applying the Pythagorean Theorem



Access the site link below to view the standards from the Florida Department of Education:

<https://www.cpalms.org/PreviewCourse/Preview/17783>

Algebra I Honors (high school credit)

Description

Algebra 1 is the foundation—the skills acquired in this course contain the basic knowledge needed for all future high school math courses. The material covered in this course is important, but everyone can do it. Everyone can have a good time solving the hundreds of real-world problems algebra can help answer. Course activities make the numbers, graphs, and equations more real. The content in this course is tied to real-world applications like sports, travel, business, and health.

This course is designed to give students the skills and strategies to solve all kinds of mathematical problems. Students will also acquire the confidence needed to handle everything high school math has in store for them. Algebra 1 emphasizes the importance of algebra in everyday life through hundreds of real-world examples. Assessments are designed to ensure that your understanding goes beyond rote memorization of steps and procedures. Upon successful course completion, you will have a strong foundation in Algebra 1 and will be prepared for other higher-level math courses.

Follow the link below for the Department of Education description for this course:

Honors course description:

<https://www.cpalms.org/PreviewCourse/Preview/20364?isShowCurrent=false>

Geometry I (high school credit)

Description

Throughout this course, you will use problem-solving and real-world application to gain the knowledge of geometric concepts and their practical uses. This is a required math course for high school graduation.

Follow the link below for the Department of Education description of this course:

Regular course description:

<https://www.cpalms.org/PreviewCourse/Preview/20564?isShowCurrent=false>

M/J Comprehensive Science 2 - Grade 7



Description

MJ Comprehensive Science 2 is the second in a series of three consecutive middle school science classes. It builds on concepts introduced in the first course of the series, including the disciplines of life science, physical science, and earth-space science. In addition, technology, engineering, and mathematics (STEM) concepts are integrated throughout the course.

Follow the links below for the Department of Education descriptions for this course:

Regular course description: <http://www.cpalms.org/Public/PreviewCourse/Preview/13072>

M/J Comprehensive Science 3 - Grade 8

Description

MJ Comprehensive Science 3 is the third in a series of three consecutive middle school science classes. It builds on concepts introduced in the first and second courses of the series, including the disciplines of life science, physical science, and earth-space science. In addition, technology, engineering, and mathematics (STEM) concepts are integrated throughout the course. Students learn about properties of matter, physical and chemical changes, atoms and the periodic table of elements, photosynthesis and cellular respiration, the universe, and the solar system. Hands-on and virtual laboratory investigations are included throughout the course to provide students opportunities for exploration through scientific inquiry, research, measurement, problem-solving, and experimental procedures. By the end of the course, students will be practicing, experimenting, thinking, and talking like a scientist!

Follow the link below for the Department of Education description for this course:

Regular course description: <http://www.cpalms.org/Public/PreviewCourse/Preview/13074>

M/J Civics - 7th grade



Description

Learning about civics gives students the skills and knowledge necessary to be active citizens who have a positive impact on their communities. In this course, students discover the rights and responsibilities of citizenship in the United States. They learn about the structure of the government and how it works at the local, state, and federal levels. This course examines elections, the lawmaking process, and how citizens can impact public policy. Students also discover ways the United States interacts with countries around the world. Geography and economics support the learning of civics in this course. Engaging in this study prepares students to be informed citizens who are ready to participate in American democracy!

FLVS recommends this course for 7th grade, however, each school district establishes their own progression for middle school social studies courses. For accurate placement, check with your school district or FLVS Flex counselor to confirm the appropriate social studies course for your student.

Access the site links below to view the standards from the Florida Department of Education:

Regular course description: <http://www.cpalms.org/Public/PreviewCourse/Preview/13312>

M/J U.S. History - 8th grade

Description

Learning about history allows people to see how far we have come and what awaits us on our path to the future. In this course, students will explore the history of the United States and analyze the cause and effect in historical events. They will investigate history by using the tools of a historian to examine the historical, geographic, political, economic, and sociological events that influenced the development of the United States. Students will imagine what it was like to live in the past by reading the stories from the people who experienced it. This course begins with the engaging stories of what brought the earliest American colonists to the New World and ends with the struggles to repair the United States following the Civil War. Engaging in this study allows students to recognize the themes of history that span across centuries and leads to a greater appreciation of the development of the United States and the resulting impact on world history.

Access the site links below to view the standards from the Florida Department of Education:

Regular course description: <http://www.cpalms.org/Public/PreviewCourse/Preview/13293>



Electives

Computer Science I

Description

Learn the basic building blocks of coding using HTML to create a web page and use the in-course Python Guided Activity to try your hand at programming with Python. You'll learn how to use functions and loops to write small programs and create basic graphics. In addition, you will learn about career opportunities in the coding field. This course will give you the experience you need to begin coding on your own, and it will get you ready to take more advanced coding courses in the future! This course provides middle school elective credit.

STREAM Seminar

Description

STREAM is a course that integrates components of Science & Technology through Reading Engineering and Artistic design all based in Mathematical elements. Students will learn and then apply technology skills to solve problems, communicate with others, locate information, teach, entertain and inspire. The contextual curriculum coordinates each subject area to support one another in a formal educational structure. The STEAM curriculum is a standard-based NGSS curriculum with a focus on science and engineering practices and core concepts in science education as well as an introduction to computer science. The curriculum will be delivered through several curriculum offerings including but not limited to CS First by Google Education, Genius Hour and FUSE, an interest-driven learning experience

Art Innovation Seminar

Description

Creative thinking fits perfectly with art practices as schools guide students toward career readiness and 21st-century skills. In this course, participants will infuse the five stages of design thinking into art curriculum design and instructional practices to include human-centered, creative, and playful experiences for collaborative learning. Connect creative thinking to real-world experiences by fostering creativity, innovation, a growth mindset in art education, and exploring potential career options. Practical application will include a balance of innovative educational approaches and researched trends

Aerospace Seminar



Description

Designed to pique student interest in the aerospace field of study, this course will introduce students to the major areas of technology, as they support and advance the aerospace industry. Additionally, students will learn engineering design and problem-solving processes using manipulative skills, as they complete an array of interactive, team-based projects and build a portfolio demonstrating understanding and mastery of the course content.

PE/Health

Description

Helping students develop the knowledge and skills to select and participate in physical-activity safely, competently and with personal satisfaction is a responsibility of physical education and health. It is the unique role of quality physical education programs to help all students develop health-related fitness, health, physical competence, cognitive understanding and positive attitudes about physical activity so that they can adopt healthy and physically-active lifestyles.

Band

Description

Band coursework is on mastering the skills necessary to meet the Florida Standards of Learning for Instrumental Music. Students in this course are required to participate in school concerts as well as Performance Assessments. Small ensemble and/or solo work as well as music theory and history will be components of this course.

This is a performance-based class and requires participation in concerts/performances and rehearsals outside of class time. Students are expected to practice an average of 30 minutes per day.

Citizenship through Service Learning

Description

This course introduces service learning and civic responsibility. Academic, personal, and career skills needed for effective service-learning project implementation will be taught and applied through structured service projects that meet real school and/or community needs. Students will actively participate in meaningful service-learning experiences of at least 20 hours duration. In addition, students will focus on global citizenship, discuss global needs, and work on projects to help address these needs worldwide. Students will also serve to organize safety patrol and student government while engaging in community service initiatives.