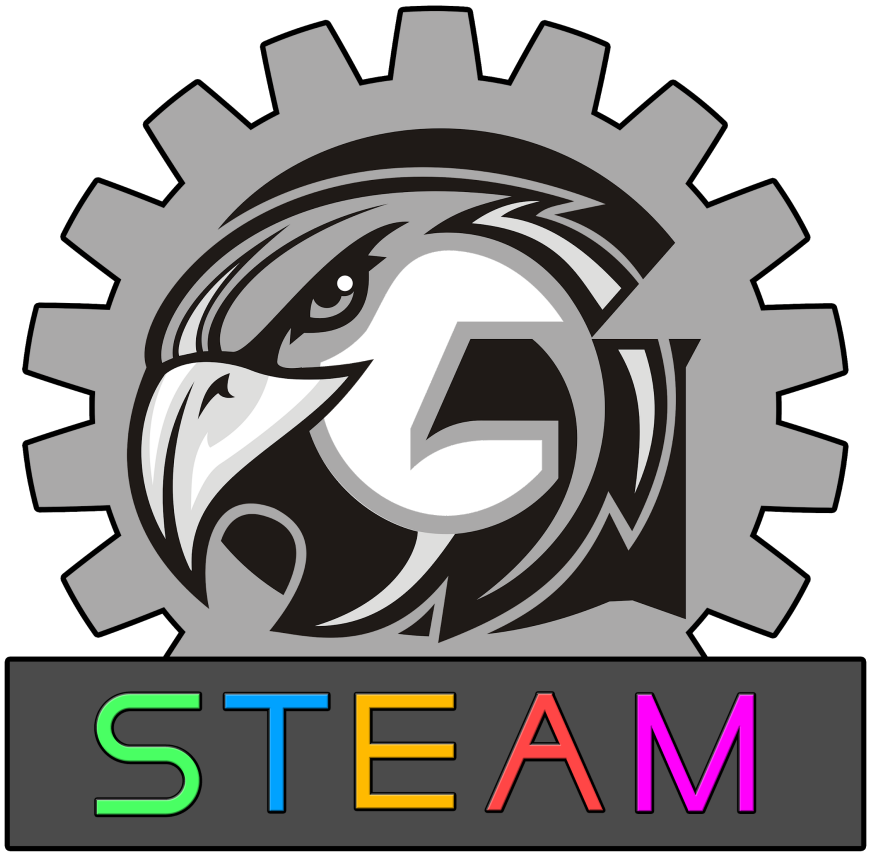
Graham Middle School



2021/2022 Course Catalog

NAVIANCE

Naviance Family Connection is a tool used to help students in grades 7-12 plan for a successful transition of high school through postsecondary and career exploration. Students use Family Connections to access information on careers and colleges, to complete self-directed surveys and to apply to colleges. Family Connection may be accessed through the district website at www.connection.naviance.com/grahamms .

6th Grade	7th Grade	8th Grade
Register for Naviance and create an online profile.	Create 1 Academic or Personal/Social Goal	Create 1 Academic or Personal/Social Goal
Career Cluster Finder - Helps students discover career clusters that are most interesting to them. Once a student completes the Career Cluster Finder, top-matching career clusters are made available for review. Students can retake the cluster finder at any time.	● **Career Cluster Finder** - Helps students discover career clusters that are most interesting to them. Once a student completes the Career Cluster Finder, top-matching career clusters are made available for review. Students can retake the cluster finder at any time. ● Add Career Clusters to Favorites List	Complete the **MI Advantage** assessment - uses Multiple Intelligences theory to reveal students' intelligence strengths and challenges, and then provides suggestions on way to develop all their intelligences.
Complete **Learning Styles Inventory** -allows students to boost academic potential by recognizing their natural learning style, discover better learning strategies, and gain career development skills. The assessment provides students with a report that can be used to increase understanding of the student's needs at school.	Complete **Learning Styles Inventory** - allows students to boost academic potential by recognizing their natural learning style, discover better learning strategies, and gain career development skills. The assessment provides students with a report that can be used to increase understanding of the student's needs at school.	**8th Grade Transition Survey**--GMS Custom Survey

CAREER GEARS

Type of Experience	Grade Level	Schedule Options	Credit	Requirements	Notes
Job Shadow	5th-12th	Regular school hours, Non-School hours by agreement	Observe adults in work settings to learn about career paths; non-relatives as mentors; Participate in job-related challenge or activities; Experience flow of typical work day on a short-term schedule.	Students must be 10 years of age; Admin approval for place-based experience with parent permission form. Students are responsible for their own transportation to and from shadow sites where school transportation does not provide pre-arranged assistance.	No major discipline record; on track with attendance. No previous issues reported during placed-based experiences.
Career Field Trips	5th-12th	Regular school hours	Observe adults in work settings to learn about career paths; Participate in job-related challenge or activity, Experience flow of typical work day on a short-term schedule.	Students must be 10 years of age; Admin approval for place-based experience with parent permission form. Students are responsible for their own transportation to and from shadow sites where school transportation does not provide pre-arranged assistance.	No major discipline record; on track with attendance. No previous issues reported during placed-based experiences.

COURSE DESCRIPTIONS

ENGLISH LANGUAGE ARTS

6TH, 7TH, 8TH GRADE - Graham Middle School utilizes Literacy Collaborative practices in our reading and Language Arts classes in order to raise the base of instruction for all students. The Literacy Collaborative framework was designed to improve reading, writing, and the language skills of our students. Teachers plan differentiated instruction to immerse students in reading, writing, and word study activities at their level, within the 90-minute ELA block. The Literacy Collaborative incorporates all of the elements of effective schools in order to support improved literacy instruction and student achievement by providing a research-based instructional model that is language-based, student-centered, process-oriented, outcome-based, and aligned with Common Core State Standards. All middle school ELA students will participate in Interactive Read Aloud, Word Study, Poetry Workshop, Writing Workshop, and Reading Workshop. **(Required Year Long Course)**

Reading- Ensure that students gain adequate exposure to a range of texts and tasks. Rigor is infused through the requirement that students read increasingly complex texts through the grades.

Writing- Ensure that students gain adequate mastery of a range of skills and applications. Each year, through writing, students should demonstrate increasing proficiency in all aspects of language usage.

Speaking and Listening- Engage effectively in a range of collaborative discussions with diverse partners.

Language- Demonstrate command of the conventions of standard English grammar and usage when speaking or writing.

9TH GRADE English 1 - This accelerated course will focus on 9th Grade ELA Standards through our GLS Literacy Framework. This course would be appropriate for students that have a strong work ethic and are looking to take College Credit Plus ELA Courses while in High School. (**With Approva**l - MAP, Ohio State Test, Teacher Recommendation) - **High School Credit: 1.00 (8th Year Long Course)**

MATHEMATICS

6TH GRADE - In Grade 6, instructional time should focus on four critical areas: (1) connecting ratio and rate to whole number multiplication and division and using concepts of ratio and rate to solve problems; (2) completing understanding of division of fractions and extending the notion of number to the system of rational numbers, which includes negative numbers; (3) writing, interpreting, and using expressions and equations; and (4) developing understanding of statistical thinking. **(Required Year Long Course)**

6TH GRADE Advanced- In Advanced Math, instructional time will cover the critical areas of focus from 6th grade math as well as the following topics from 7th grade math content: (1) Solving unit rate problems involving fractions,

(2) solving multi-step rate and percent problems, (3) solving and writing multi-step equations and inequalities, and (4) computing with integers and rational numbers. Instructional time should also cover the 8th grade content of transformations. **(Year Long Course)**

7TH GRADE - In Grade 7, instructional time should focus on four critical areas: (1) developing understanding of and applying proportional relationships; (2) developing understanding of operations with rational numbers and working with expressions and linear equations; (3) solving problems involving scale drawings and informal geometric constructions, and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume; and (4) drawing inferences about populations based on samples. **(Required Year Long Course)**

7TH GRADE PRE ALGEBRA- In 7th Grade Advanced Math, instructional time will cover the critical areas of focus for 7th grade math as well as the following topics from 8th grade math content: (1) Understand the connections between proportional relationships, lines, and linear equations, (2) Define, evaluate and compare functions, (3) and work with radicals and integers exponents. **(Required Year Long Course for Algebra)**

8TH GRADE - In Grade 8, instructional time should focus on three critical areas: (1) formulating and reasoning about expressions and equations, including modeling an association in bivariate data with a linear equation, and solving linear equations and systems of linear equations; (2) grasping the concept of a function and using functions to describe quantitative relationships; (3) analyzing two- and three-dimensional space and figures using distance, angle, similarity, and congruence, and understanding and applying the Pythagorean Theorem. **(Required Year Long Course)**

ALGEBRA 1 - (Pre: 7th Grade Pre Algebra) - Instruction will focus on four critical areas: (1) applying quantitative reasoning in order to express relationships between quantities numerically, graphically, and algebraically and understanding the limitations of each representation; (2) comparing the key features of linear, exponential, and quadratic functions, and use these functions to model and solve problems; (3) writing and solving a variety of one- and two-variable equations and inequalities, and systems of one- and two-variable equations and inequalities, and interpret the solutions in context; (4) analyzing visual data displays and summary statistics to draw conclusions about different types of data. (**With Approva**l - MAP, Ohio State Test, Teacher Recommendation) **High School Credit: 1.00 (8th Year Long Course)**

SCIENCE

6TH GRADE - All matter is made of small particles called atoms. The properties of matter are based on the order and organization of atoms and molecules. Cells, minerals, rocks and soil are all examples of matter. **(Required Year Long Course)**

7TH GRADE - Systems can exchange energy and/or matter when interactions occur within systems and between systems. Systems cycle matter and energy in observable and predictable patterns. **(Required Year Long Course)**

8TH GRADE- This course continues the students' learning in the areas of Earth and Space Science, Physical Science and Life Science. Scientific inquiry begins each unit as the students learn about the topics of: Physical Earth, Forces and Motion, and Species and Reproduction. The Physical Earth topic focuses on the physical features

of Earth and how they formed. This includes the interior of Earth, the rock record, plate tectonics and landforms. The Forces and Motion topic focuses on forces and motion within, on and around the Earth and within the universe. The Species and Reproduction topic focuses on continuation of the species. **(Required Year Long Course)**

SOCIAL STUDIES

6TH GRADE - THEME: REGIONS AND PEOPLE OF THE EASTERN HEMISPHERE In grade six, students study the Eastern Hemisphere (Africa, Asia, Australia and Europe), its geographic features, early history, cultural development and economic change. Students learn about the development of river civilizations in Africa and Asia, including their governments, cultures and economic systems. The geographic focus includes the study of contemporary regional characteristics, the movement of people, products and ideas, and cultural diversity. Students develop their understanding of the role of consumers and the interaction of markets, resources and competition. **(Required Year Long Course)**

7TH GRADE - THEME: WORLD STUDIES FROM 750 B.C. TO 1600 A.D.: ANCIENT GREECE TO THE FIRST GLOBAL AGE The seventh-grade year is an integrated study of world history, beginning with ancient Greece and continuing through global exploration. We will delve into how historic events are shaped by geographic, social, cultural, economic and political factors. Students will develop their understanding of how ideas and events from the past have shaped the world today. **(Required Year Long Course)**

8TH GRADE - THEME: U.S. STUDIES FROM 1492 TO 1877: EXPLORATION THROUGH RECONSTRUCTION The historical focus continues in the eighth grade with the study of European exploration and the early years of the United States. This study incorporates all four social studies strands into a chronologic view of the development of the United States. Students examine how historic events are shaped by geographic, social, cultural, economic and political factors. **(Required Year Long Course)**

ART

6TH GRADE - Building a general vocabulary of art elements, tools and media are the basis for 6th grade art. Within this course students are exposed to a variety of art styles, artists, and processes.
(Required 9 Week Course)

7TH GRADE- Principles of art, subject matters and styles of art are the main focus of 7th grade art. Students explore these components and how they can use them in their own two and three dimensional works. (**Required 9 Week Course)**

8TH GRADE - Creating artwork for personal, social and physical reasons build the content for 8th grade art. Students explore why artists make art and how art is a pathway to personal expression. **(Elective 9 Week Course)**

ART 1 HS CREDIT: 1.00 (Pre: 8th Grade Art) This course experience is an in depth look at the elements and principles of art and design and their application to traditional methods of artmaking. Sections include vocabulary, drawing, painting and 3-D study. Students must take Art 8 in 1st or 2nd Quarter as a Prerequisite.
(High School Credit .50 Elective (8th) Semester Course)

BAND

6TH GRADE CONCERT BAND - Students in this course will continue to develop their skills in performing music on an approved band instrument. This course has mandatory evening performances two to four times each year usually consisting of a winter concert in December and a spring concert in May. Students must have previous experience in band, audition or have teacher recommendation. **(Elective Year Long Course)**

7TH/8TH GRADE CONCERT BAND - Students in this course will continue to develop their skills in performing music on an approved band instrument. This course has mandatory evening performances two to four times each year usually consisting of a Winter Concert in December and a Spring Concert in May. The 7th and 8th Grade Band is featured at a home football game with the high school marching band in the fall. Students will also have the option of performing for District XI Solo and Ensemble in March/April. Students must have previous experience in band, audition or teacher recommendation. **(Elective Year Long Course)**

CHOIR/MUSIC

6TH GRADE CHOIR

In this year long course, the major emphasis is on properly developing the young singing voice. This standards based course develops the skills necessary for ensemble singing of choral literature appropriately arranged for younger middle school voices. Students will sing a wide-variety of 2 and 3 part music. The course also provides opportunities for growth in the understanding of musical elements (rhythm, melody, form, harmony, dynamics, expressive elements, tone color or timbre, articulation, and style) as applied to the music performed. Students will learn to enjoy participating in vocal music; work cooperatively with other students in the musical organization and serve the school by participating in performances. **(Elective Year Long Course)**

7TH/8TH GRADE CHOIR

In this year long course, the major emphasis is on developing the growing and changing adolescent voice. This standards based course develops the skills necessary for ensemble singing of choral literature appropriately arranged for older middle school voices. Students will sing a wide-variety of 3 and/or 4 part music. The course also provides opportunities for growth in the understanding of musical elements (rhythm, melody, form, harmony, dynamics, expressive elements, tone color or timbre, articulation, and style) as applied to the music performed. Students will learn to enjoy participating in vocal music; work cooperatively with other students in the musical organization and serve the school by participating in performances. Students will also have the opportunity to participate in OMEA Solo and Ensemble Adjudicated events in the spring. **(Elective Year Long Course)**

PHYSICAL EDUCATION/LIFE SKILLS

6TH GRADE - This course provides students the opportunity to learn through a developmentally appropriate, comprehensive sequentially planned physical education program aligned with the Ohio Performance Standards and Graham Middle School's Student Learning Objectives. In 6th grade, the content standards emphasize working cooperatively to achieve a common goal. The focus of this course is to introduce and to become proficient at basic movement skill combinations and movement skill knowledge. Also, the student will comprehend the assessment/s

and maintenance of physical fitness; that are designed to develop and assess improved health and performance. They will understand the application of psychological and sociological concepts, including self-responsibility, positive social interaction, and group dynamics, in the learning and performance of physical activity. Units of activity include: physical fitness (activities and assessment, concepts, development and maintenance); cooperative activities; recreation and leisure; tactical games and lead-up games; racket skills and lead up games (ping pong/table tennis); dribbling skills (hand dribble and foot dribble) and lead-up games (3- on-3 basketball and small-sided games); archery. A portion of the 9 weeks will be spend utilizing the Life Skills Curriculum. **(Required 9 Week Course)**

7TH GRADE - This course provides students the opportunity to learn through a developmentally appropriate, comprehensive sequentially planned physical education program aligned with the Ohio Performance Standards and Graham Middle School's Student Learning Objectives. In 7th grade, the content standards emphasize working cooperatively, learning and understanding strategies that transfer from sport to sport or activity to activity. The focus of this course is for the students to understand how the movement skill knowledge applies to a number of different strategies; the implementation, assessment and maintenance of physical fitness how it drives improved health and performance. This requisite will be understood by obtaining the knowledge of physical fitness concepts, principles and strategies as fitness precludes to the whole person. Students will also understand the application/s and benefits of psychological and sociological concepts, including self-responsibility, positive social interaction, and group dynamics, in the learning and performance of physical activity. A portion of the 9 weeks will be spend utilizing the Life Skills Curriculum. **(Required 9 Week Course)**

8TH GRADE- This course provides students the opportunity to learn through a developmentally appropriate, comprehensive sequentially planned physical education program aligned with the Ohio Performance Standards and Graham Middle School's Student Learning Objectives. In 8th grade, the content standards emphasize promotion of each student's opportunity to participate in a comprehensive program consisting of skill development, lead up games, team sports and physical fitness activities. The focus of this course is to utilize the different movement skill combinations and to master an understanding of the movement skill knowledge during game play. This course will require the students to apply assessment/s and maintenance concepts as they apply to physical fitness and improved health and performance. The course will also continue to expand the student's knowledge of physical fitness concepts (principles and strategies); expand the application of psychological and sociological concepts (including self-responsibility, positive social interaction, and group dynamics) in the learning and performance of physical activity. The program also promotes the spirit of cooperation, leadership, fair play and friendly competition. A portion of the 9 weeks will be spend utilizing the Life Skills Curriculum. **(Required 9 Week Course)**

AG/CAREER

CAREER EXPLORATION - Students will explore their career interests by examining factors that impact individual employability, the career selection process, and potential work environments. Students will develop appreciation for their strengths and connect personal interests to possible careers. Using Naviance, students start plans for their future including career, college, and/or military options. Plans include course selection and planning as well as career aspirations and goals. **(Required (6th) 9 Week Course)**

INTRO TO AG - Students will learn how agriculture impacts our community and our everyday lives. Using a project-based approach, students will conduct an agri-science research, explore animal science topics, examine plant topics, and develop mechanical skills. Careers in the agriculture industry will be explored using Naviance. Students in this class have the opportunity to participate in the Middle School FFA Chapter. **(Required (7th) 9 Week Course)**

AGRICULTURE, FOOD, AND NATURAL RESOURCES - This first course in the career field is an introduction to Agricultural and Environmental Systems. Students will be introduced to the scope of the Agricultural and Environmental Systems career field. They will examine principles of food science, natural resource management, animal science and management, plant and horticultural science, power technology and bioscience. Students will examine the FFA organization and Supervised Agricultural Experience programs. Throughout the course, students will develop communication, leadership and business skills essential to the agricultural industry. **(Elective (8th) Year Long) HS CREDIT: 1.25 (FFA membership is required of this class. Students must participate in the Ag Ed model of instruction (classroom), SAE (supervised agricultural experience), and FFA (leadership activities, community service, conferences, career development events). Please see instructor with questions before enrolling.)**

LEADERSHIP/CAREER - Students will explore opportunities to develop their personal and professional skills, continue career exploration, practice effective communication, and manage information resources including Naviance. Class strategies include teamwork, presentation, and planning. Students in this class have the opportunity to participate in the Middle School FFA Chapter. **(Required (8th) -) 9 Week Course) **Unless in Agricultural, Food, and Natural Resources**

STEM

CODING and ROBOTICS - Working in collaborative pairs, students will use Lego Mindstorms software to program a Lego EV3 robot to perform a variety of missions. As they work through these missions, students will not only learn programming logic and syntax, but will strengthen their 21st Century Skills while sharpening their computational and spatial problem solving. **(Elective (6th/7th/8th) 9 Week Course) (Prerequisite for Advanced Coding and Robotics)**

ADVANCED CODING and ROBOTICS (Pre: Coding and Robotics) - Bricklaying, cake decorating, metala work, painting…..Robots do all of these in the today's world. Using EV3 robots and Mindstorms software, students will extend their knowledge they gained from the first Coding and Robotics Course. Collaborative groups will research, engineer, build, and program their robots to complete production tasks that create a product. **(Elective (7th/8th) 9 Week Course**)

COMPUTER SCIENCE FOR INNOVATORS AND MAKERS - Throughout the unit, students will learn about programming for the physical world by blending hardware design and software development, allowing students to discover computer science concepts and skills by creating personally relevant, tangible, shareable projects. **(Required (8th) 9 Week Course)**

STEAM 101 - This course is designed to introduce students to the engineering design process with a focus on collaboration and communication. Students will work on design teams to complete a variety of STEAM driven challenges. **(Required (6th) 9 Week Course)**

DESIGN AND MODELING- Design and Modeling provides students opportunities to apply the design process to creatively solve problems. Students learn and utilize methods for communicating design ideas through sketches, solid models, and mathematical models. Students work in teams to identify design requirements, research the topic, and engage stakeholders. Teams design, test, modify and present a variety of projects using the engineering design process. Students will also have an opportunity to use a 3D printer during this course. **(Required (7th) 9 Week Course)**

DESIGN THINKERS - Students apply the design process to solve problems and understand the influence of creativity and innovation in their lives. Students will work in teams to complete several high level design challenges during the quarter. The students will use the steps of the engineering design process, while capturing research and ideas in their engineering notebooks before beginning the implementation stage. Students will produce a product and then present their product to the class at the end of the quarter. **(Elective (8th) 9 Week Course)**

DIGITAL SKILLS & CITIZENSHIP- In an ever changing technological world, digital skills and citizenship are key now more than ever, so students will learn about the evolution of technology and take a look at the landscape of social media and its impact on our lives. Students will also discuss the importance of persistence and goal setting, how to achieve goals that are most important to them. Along with these topics, students will also explore tools to enhance their learning such as using various Google Apps and even podcasting. **(Elective 9 Week Course)**

ENVIRONMENTAL ENGINEERING - Have you ever wished that you could change your school environment for the better? Do you dream of working on real projects for Falcon Farms? In Environmental Engineering, you will learn to apply the engineering process to projects that you design and then work toward making them a reality. **(Elective (6th) 9 Week Course)**

FLIGHT AND SPACE - The exciting world of aerospace comes alive through Flight and Space as students explore the science behind aeronautics and use their knowledge to engineer, build, and test aircraft. While engineering, building, and testing hot air balloons, Wright and Balsa gliders, and CO2 rockets, students will learn and apply the scientific principles that govern flight and propulsion. Open to 6th and 7th Graders with Approval and all 8th Grade Students **(Elective (7th/8th) 9 Week Course)**

GOOGLE APPS 1 - Students will learn about Google Apps for Education Suite through Google Education as well as to develop troubleshooting and searching skills needed to gain Future Ready Skills. A portion of the 9 Weeks will also be dedicated to Digital Citizenship. **(Elective (6th) 9 Week Course)**

GOOGLE APPS 2 - This is a continuation of Google 1. Students will learn about Google Apps for Education Suite through Google Education as well as to develop troubleshooting and searching skills needed to gain Future Ready Skills. A portion of the 9 Weeks will also be dedicated to Digital Citizenship. **(Elective (7th) 9 Week Course)**

SYSTEMS OF THE BODY - In this course, students engage in the study of the processes, structures, and interactions of the human body. The systems are studied as "parts of a whole," working together to keep our human body functioning properly. Students will study the nervous, respiratory, circulatory, digestive, excretory, skeletal, and muscular systems during this 9 week course. **(Elective (7th) 9 Week Course - Prerequisite for Medical Detectives)**

MEDICAL DETECTIVES - This course is an introductory course in applied biomedical sciences. Students play the role of real-life medical detectives as they collect and analyze medical data to diagnose disease. They solve medical mysteries, dissect a sheep brain, and work through a crime scenario as they learn to implement various components from the field of forensics. **(Elective (8th)(Prerequisite of Systems of the Body is required) 9 Week Course)**

FOREIGN LANGUAGE

GERMAN 1 - German 1 is an introduction to the fundamentals of the German language, vocabulary, pronunciation, and grammar. Students in first-year German will learn to communicate in the German language in four ways: speaking, reading, understanding, and writing. Vocabulary study is emphasized and grammar study is used to help the student acquire a basic ability to community. Life in the German-speaking countries (Germany, Austria, Switzerland) will be emphasized. Family, teenage life, school life, eating habits, and holiday customs are topics covered. **High School Credit - 1.00 (Elective (8th) Year Long)**

OR

SPANISH 1 - Students in first year Spanish will continue to develop speaking, reading, writing, and listening skills. Vocabulary study will continue to be emphasized and grammar concepts will be studied. Some topics covered are health, traveling, and childhood. **High School Credit - 1.00 (Elective (8th) Year Long)**