



galileoschool
FOR GIFTED LEARNING

MS Curriculum Guide

Welcome to Galileo!

Our goal is to engage our students through an integrated curriculum using science, technology, engineering, and mathematics (STEM) content while simultaneously providing them with the guidance to see its applications and purpose through history, literature, and the arts; thereby producing our country's next generation of independent thinkers. Galileo provides innovative, research-based education in a nurturing environment for gifted and talented students and those who want to learn in a gifted learning environment that will challenge and motivate them to pursue their passionate interests in service to others.



At Galileo we believe that ability is not fixed; it can increase or decrease based on effort. Success is a result of hard work and children can increase their ability in all subject areas alike. We strive to continuously engage our students in their learning throughout their Galileo day, as they actively construct an understanding of the subject matter at hand. One of our core beliefs is to teach students in their “zone”- the place where skills and challenge intersect. These initial understandings shape how students learn, and thus shape how the curriculum is taught.

Welcome!

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Michelle Nunez.....	Principal
Leslie Cunningham.....	Assistant Principal
Samantha Patterson.....	Assistant Principal
Gleen Weeden.....	Behavior Specialist
Courtney Gierach.....	Instructional Coach
Amanda Romano.....	Instructional Coach
Jana Spitalnick.....	Instructional Coach
Sarah Xander.....	Instructional Coach
Jennifer Utsey.....	School Psychologist
Andrea Jimenez.....	SRS



Registration Information

Students will be provided an online registration form each school year to request elective course classes. Core content classes (math, language arts, social studies, science) will be assigned to each student based on teacher recommendation, standardized test scores, and previous academic success. If wishing to participate in a higher-level course the student must make a request to his/her teacher or administration.

Schedule Change Policy

Students may request schedule changes during the first week of each semester by completing a schedule change form. These forms can be found in the front office and must be turned into the front office within the first week of the semester. Scheduling requests will be thoroughly reviewed, however, not all requests can be granted due to scheduling conflicts.

Registration

*ESOL and ESE students will be placed in appropriate courses based on their IEP or ESOL plan.

Required Courses- All students are required to take four core content classes each year. These courses include math, science, language arts, and social studies.

Creative Productivity/PBL- All students will be able to participate in CP and PBL for the last 50 minutes of each day. CP units will be created based on student interest and rotated through the year.

Electives- Students will be provided two periods of electives per day. These electives will be scheduled based on student choice. GSGL will do its best to provide students with their top choices when scheduling permits. Please note, student electives may be replaced with intensive reading and/or math classes when necessary.

High School Credit

The following courses will be offered for high school credit. Students are able to retake courses for grade recovery during their 9th grade year.

Algebra 1 Honors

Geometry 1 Honors

Algebra 2 Honors

Spanish 1

Standardized Testing

Florida Assessment of Student Thinking – The FAST is administered 3 times per year during the fall, winter, and spring. FAST questions are based on state standards and assess higher order skills. All students in grades K-8 will be required to take the following FAST assessments:

- ELA
- Math

Students in grades 4-8 will take Writing as well.

End-of Course Assessments – EOC assessments will be given once per year during the second semester. An EOC will be given for Algebra 1, Geometry 1, Algebra 2, and Civics. The overall score for the EOC will be 30% of the overall grade for that course.

Intensive Reading- Students who are performing below grade level will be provided with an intensive reading course. This course is designed to strengthen students' weaknesses with phonics, reading comprehension, fluency, vocabulary, phonemic awareness, and writing.

Intensive Math – Students who are performing below grade level will be provided with an Intensive Math course. This course is designed to strengthen student's weaknesses with grade level math skills.

Language Arts Courses

6th Grade Language Arts Advanced 1

The sixth grade Language Arts course has an emphasis on composition skills, and comprehension through a focus on short stories, novels, and nonfiction texts. Students will engage in project-based assessments to show mastery of standards. In sixth grade, students focus on personal narratives, specific novel studies, comparison essays, arguments, poetry and plays. Students who exceed the grade-level standards will also be introduced to literary analysis and exposition of various texts in various manners including projects and interdisciplinary activities. All middle school language arts students receive an education utilizing a technology-based classroom wherein they hone typing, technological, and most importantly, independent functioning skills.

6th Grade Language Arts Gifted 1

In addition to the description listed above, this course will help students to work towards Education Plan goals as specified for that student. Progress towards goals will be monitored by teacher and student.

7th Grade Language Arts Advanced

The seventh grade Language Arts course has an emphasis on composition skills, and comprehension through a focus on short stories, novels, and nonfiction texts. Students will engage in project-based assessments to show mastery of standards. In seventh grade, students focus on analysis of narratives, specific novel studies (e.g genre studies), literary analysis essays, arguments and debates, poetry and plays. Students who exceed the grade-level standards will also be introduced to literary analysis and exposition of various texts in various manners including projects and interdisciplinary activities. All middle school language arts students receive an education utilizing a

technology-based classroom wherein they hone typing, technological, and most importantly, independent functioning skills.

7th Grade Language Arts Gifted 2

In addition to the description listed above, this course will help students to work towards Education Plan goals as specified for that student. Progress towards goals will be monitored by teacher and student.

8th Grade Language Arts Advanced 3

The eighth grade Language Arts course has an emphasis on composition skills, and comprehension through a focus on short stories, novels, and nonfiction texts. Students will engage in project-based assessments to show mastery of standards. In eighth grade, students focus on personal narratives and biographies, specific novel studies (focusing on high school level content), literary analysis essays, arguments and debates, poetry and plays. Students who exceed the grade-level standards will also be introduced to literary analysis and exposition of various texts in various manners including projects and interdisciplinary activities. All middle school language arts students receive an education utilizing a technology-based classroom wherein they hone typing, technological, and most importantly, independent functioning skills. The focus of eighth grade language arts is to prepare students for the rigorous expectations of high school and college. By the end of eighth grade, it is the hope of teachers and staff that students have mastered independent functioning skills and are capable of intrinsic motivation to achieve goals and tasks.

8th Grade Language Arts Gifted 3

In addition to the description listed above, this course will help students to work towards Education Plan goals as specified for that student. Progress towards goals will be monitored by teacher and student.

Social Studies

6th Grade World History Advanced

World History social studies curriculum covers the world's earliest civilizations to the ancient and classical civilizations of Africa, Asia, and Europe. Students will be exposed to the multiple dynamics of world history including economics, geography, politics, and religion/philosophy. Students will study methods of historical inquiry and primary and secondary historical documents. Students engage in multiple opportunities to complete experiences to bring the curriculum alive such as cave paintings, Greco-Roman pottery, and creating a living museum.

6th Grade World History Gifted

In addition to the description listed above, this course will help students work towards Education Plan goals as specified for that student. Progress towards goals will be monitored by teacher and student.

7th Grade Civics Advanced

Civics provides students with the opportunity to explore the structure of the United States government on a national, state, and local level. This course will allow students to learn and understand fundamental concepts and philosophies that led to the creation of the United States Constitution, as well as analyze political parties, national and global economic markets, and investigate what it means to be an American citizen

7th Grade Civics Gifted

In addition to the description listed above, this course will help students work towards Education Plan goals as specified for that student. Progress towards goals will be monitored by teacher and student.

8th Grade U.S. History Advanced

In US History, students will explore the past, present and future of the United States of America; starting from the early years when we were the 13 colonies up to present time. Once learning core content standards, students apply their knowledge to express their creativity in creating personal timelines, re-creating a colony,

engaging in classroom discussions about current events and how they are related to our unit. The goal for this class is not only to learn about history but become problem solvers in the real world.

8th Grade U.S. History Gifted

In addition to the description listed above, this course will help students work towards Education Plan goals as specified for that student. Progress towards goals will be monitored by teacher and student.

Science

6th Grade Comprehensive Science I

Students will take a revised science course that has been designed to support understanding through big ideas in science. This course will allow students to learn content across six interconnected units that will build throughout middle school. The major concepts covered during 6th grade Comprehensive will be: Atoms and Molecules, Classification of Organisms, Ecosystems, Plate Tectonics, The Geosphere and Cryosphere, and Our Solar System. The class will be supported by digital content as well as hands-on, cooperative, and literacy-based activities.

6th Grade Comprehensive Science I Gifted

In addition to the description listed above, this course will help students work towards Education Plan goals as specified for that student. Progress towards goals will be monitored by teacher and student. Students will be provided opportunities to dive deeper into the content and to make even more connections across science and with other disciplines.

7th Grade Comprehensive Science II

Students will take a revised science course that has been designed to support understanding through big ideas in science. This course will allow students to learn content across six interconnected units that will build from the content covered in 6th grade and will be developed further in 8th grade. The major concepts covered during 7th grade Comprehensive will be: Cell Structure and

Function, Homeostasis in Cells, Heredity, Weathering and Erosion, The Hydrosphere and Atmosphere, and Stars and Galaxies. The class will be supported by digital content as well as hands-on, cooperative, and literacy-based activities.

7th Grade Comprehensive Science II Gifted

Students in Advanced classes will be provided opportunities to dive deeper into the content and to make even more connections across science and with other disciplines. In addition to the description listed above, this course will help students to work towards Education Plan goals as specified for that student. Progress towards goals will be monitored by teacher and student.

8th Grade Comprehensive Science III

In addition to demonstrating the standard level, 8th grade science students will make connections among unifying concepts and processes to explain the natural world and the dynamic nature of science. The cognitive complexity for students at this level reaches into a higher level of thinking, requiring frequent responses, citing evidence, drawing conclusions, explaining phenomena, and using concepts to solve problems. Students extend many of the higher-level thinking skills over an extended period of time, making connections between related concepts and phenomena and synthesizing ideas into new concepts. They will propose new problems, questions and/or experimental designs based on results or research. Students analyze information to provide new insights and draw related logical conclusions that are not immediately obvious. They will identify issues, evaluate science information and principles, and make and support decisions, with justification. Students independently research how scientific knowledge changes and grows due to the contributions of individuals.

8th Grade Science Gifted

In addition to the description listed above, this course will help students work towards Education Plan goals as specified for that student. Progress towards goals will be monitored by teacher and student.

Mathematics

6th Grade Mathematics Advanced 1

The sixth-grade mathematics course continues to build on elementary math skills in preparation for Algebra 1. Students will expand their knowledge in six 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; (4) developing understanding of statistical thinking; (5) developing understanding of and applying proportional relationships; and (6) developing understanding of operations with rational numbers and working with expressions and linear equations. Within each critical area, students will engage in problem solving activities through both individual and group-work practice. Students who seek challenge beyond the six critical areas will engage in enrichment activities that encourage the use of critical thinking skills.

6th Grade Mathematics Gifted 1

In addition to the description listed above, this course will help students work towards Education Plan goals as specified for that student. Progress towards goals will be monitored by teacher and student.

7th Grade Mathematics Advanced 2

The seventh-grade mathematics course continues to build on 6th grade skills as a foundation for high school Algebra 1 in 8th grade. This course focuses on five critical areas: (1) 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; (2) drawing inferences about populations based on samples; (3) formulating and reasoning about expressions and equations, including modeling an association in bivariate data with a linear equation, and solving linear equations; (4) grasping the concept of a function and using functions to describe quantitative relationships; and (5) analyzing two- and three-dimensional space and figures using distance, angle, similarity, and congruence. Students who seek challenge beyond the five critical areas will engage in enrichment activities that encourage the use of critical thinking skills.

7th Grade Mathematics Gifted 2

In addition to the description listed above, this course will help students work towards Education Plan goals as specified for that student. Progress towards goals will be monitored by teacher and student.

8th Grade Pre-Algebra Advanced

The pre-algebra course continues to build on skills from 6th and 7th grade as a foundation for high school Algebra 1. This course will 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. Students who seek challenge beyond the three critical areas will engage in enrichment activities that reflect the complexity in Algebra 1.

8th Grade Pre-Algebra Gifted

In addition to the description listed above, this course will help students work towards Education Plan goals as specified for that student. Progress towards goals will be monitored by teacher and student.

Algebra 1 Honors *for high school credit

This course is designed to provide the foundation for future secondary mathematics courses and to

develop skills needed to solve mathematical problems. Topics shall include the following: functions; linear equations and inequalities; systems of linear equation and inequalities; polynomials; simplifying radical and rational expressions; solving and graphing quadratic equations; exponential functions; linear regression analysis including residuals; and introductory probability. Additionally, students will work on test taking skills and problem solving techniques to prepare for the End of Course Exam (EOC).

- Algebra 1 or its equivalent is required for high school graduation.

Algebra 1 Gifted *for high school credit

In addition to the description listed above, this course will help students work towards Education Plan goals as specified for that student. Progress towards goals will be monitored by teacher and student.

Geometry Honors *for high school credit

This course is designed to develop critical thinking skills in mathematical situations using deduction and discovery. Practical applications of geometric skills and concepts in the real world are included. Topics include, but not limited to the following: logic and reasoning; proofs; the study of Euclidean geometry of lines, planes, angles, triangles; similarity; rigid transformations; congruence; geometric inequalities; explorations with polygons and circles, area and volume; constructions. Additionally, students will work on test-taking skills and problem-solving techniques to prepare for the End of Course Exam (EOC).

Geometry Gifted *for high school credit

In addition to the description listed above, this course will help students work towards Education Plan goals as specified for that student. Progress towards goals will be monitored by teacher and student.

Algebra 2 Honors *for high school credit

This course is designed to study the structure of Algebra by providing foundations for applying these skills to other math and science fields. Topics include, but are not limited to the following: complex numbers; polynomial

functions and their inverses; systems of linear and nonlinear equations and inequalities; polynomials; rational and radical functions; reciprocal functions; exponential and logarithmic functions; graphing and transformations of all the previously named functions along with trigonometry; sequences and series; conditional probability; normal distributions; introductory inference and margin of error; categorical and quantitative variable statistical analysis.

Algebra 2 Gifted *for high school credit

In addition to the description listed above, this course will help students work towards Education Plan goals as specified for that student. Progress towards goals will be monitored by teacher and student.

Three Year Overview

Standard Middle School Track				
6th Grade	6th Grade Language Arts Advanced or Gifted	6th Grade World History Advanced or Gifted	6th Grade Comprehensive Science I Advanced or Gifted	6th Grade Math Advanced or Gifted
7th Grade	7th Grade Language Arts Advanced or Gifted	7th Grade Civics Advanced or Gifted	7th Grade Comprehensive Science II Advanced or Gifted	7th Grade Math Advanced or Gifted
8th Grade	8th Grade Language Arts Advanced or Gifted	8th Grade U.S. History Advanced or Gifted	8th Grade Comprehensive Science III Advanced or Gifted	8th Grade Algebra Advanced or Gifted or Algebra 1 Honors

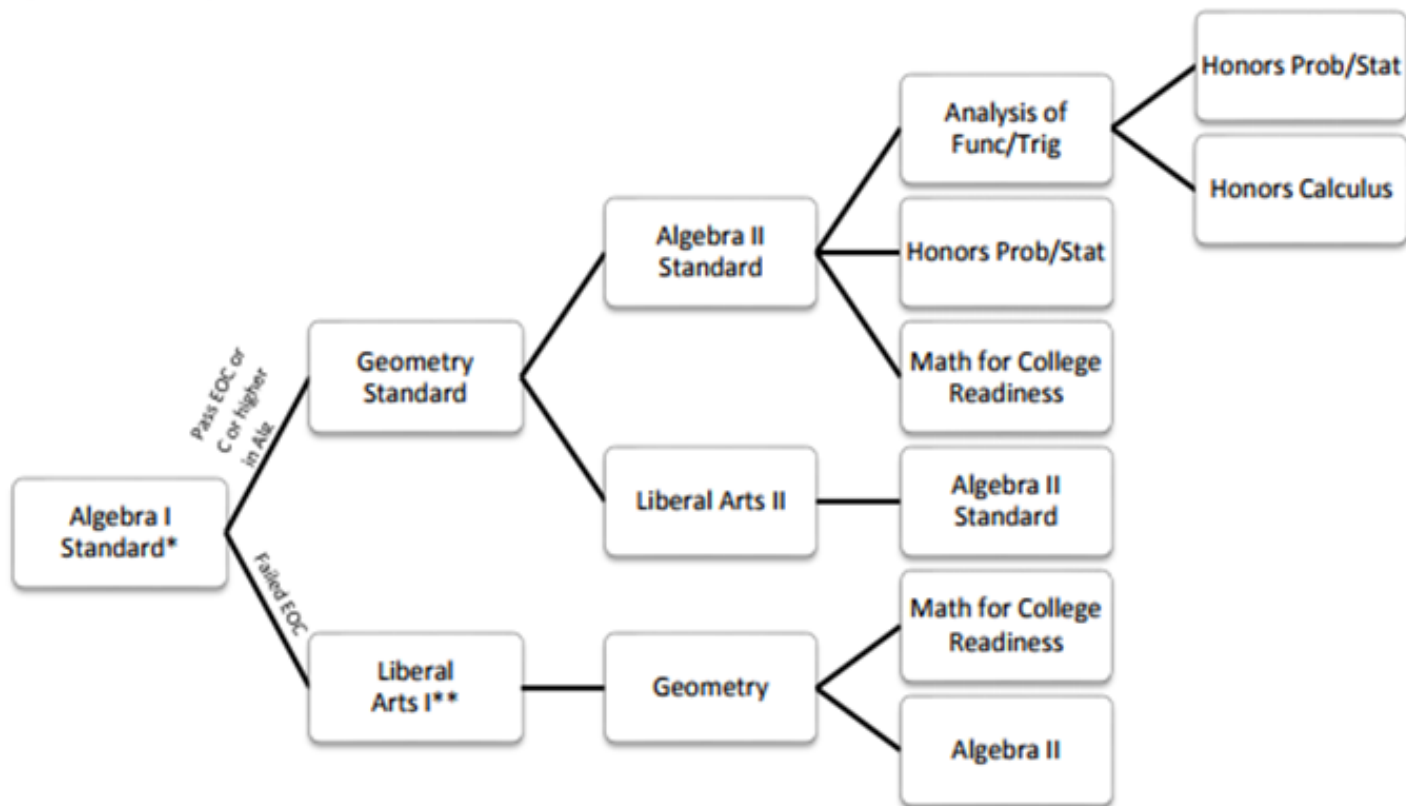
Advanced Middle School Track				
6th Grade	6th Grade Language Arts Advanced or Gifted	6th Grade World History Advanced or Gifted	6th Grade Comprehensive Science I Advanced or Gifted	Pre-Algebra Advanced or Gifted
7th Grade	7th Grade Language Arts Advanced or Gifted	7th Grade Civics Advanced or Gifted	7th Grade Comprehensive Science II Advanced or Gifted	Algebra 1 Honors or Gifted
8th Grade	8th Grade Language Arts Advanced or Gifted	8th Grade U.S. History Advanced or Gifted	8th Grade Comprehensive Science III Advanced or Gifted	Geometry Honors or Gifted

* Further acceleration will be determined on a case by case basis. If your child would benefit from whole grade acceleration or further acceleration with core content classes, please contact Jana Spitalnick, Instructional Coach @ Jana.Spitalnick@galileogiftedschool.org

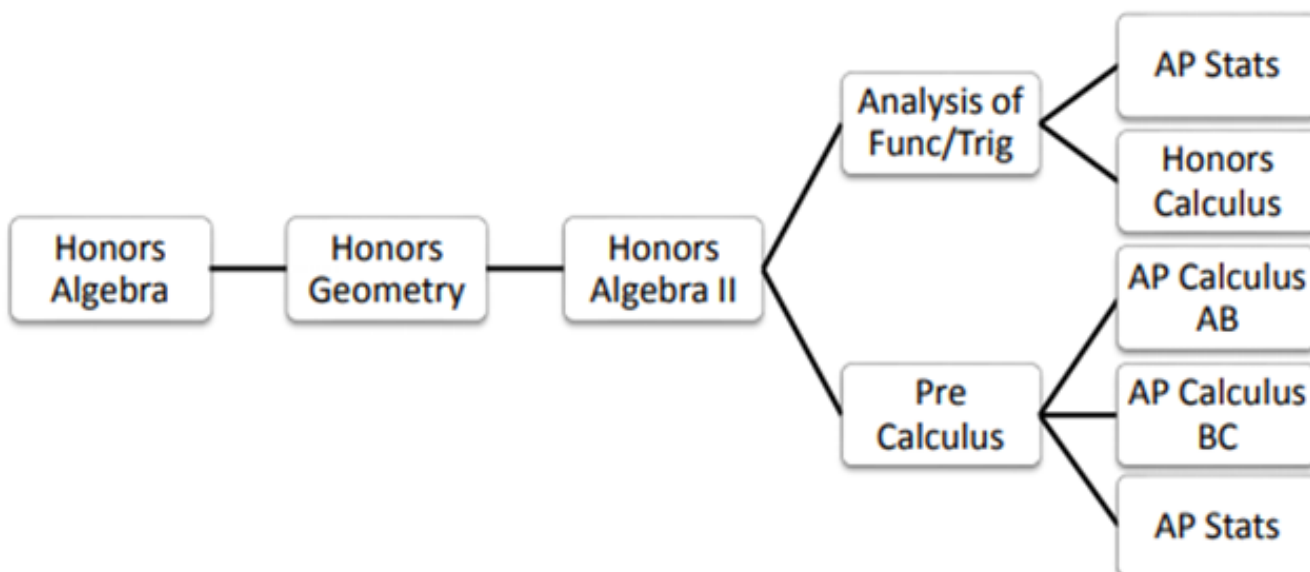
* Students are required to take four years of mathematics courses in high school regardless of the number of high school mathematics courses taken in middle school.

Math Tracks for Middle School - High School

Standard Track



Honors Track



Curriculum Background

Galileo’s curriculum is centered around two foci: first, accelerated core content instruction; and second, complex problem solving via learning that is integrated thematically and conceptually in authentic, engaging contexts. All students at the middle school level at GSGL will receive daily instruction in English language arts (reading, literature, writing, spelling and language), social studies, science, and mathematics. Technology and computer skills will be infused throughout the curriculum. Movement, healthy behaviors, and physical education are likewise essential components of lifelong learning; therefore, students will have extended time each day for healthy physical activity.

Our curricular focus is closely tied to our mission—the Curriculum Model is drawn from cutting-edge **research** on gifted education by Renzulli and his colleagues and Tomlinson and her colleagues. The interdisciplinary units promote cross-grade collaboration based on students’ **interests**, giving them **voices and choices** in their learning. Creative productivity time further promotes a spirit of collaboration as well as time for students to spend in extended activity on topics related to their **passionate interests** that will serve to **help others**. The following sections provide detailed specifics about the curriculum at GSGL.

Curriculum Model

Curricular Focus	Objectives	Philosophy
Accelerated Core Content	Mastering state standards in language arts/reading, math, science, and social studies. Foreign language learning.	Mastery Learning Parallel Curriculum’s “Core Curriculum” theme
Interdisciplinary themes, issues, and problems	To connect learning across core content areas, while integrating the arts to allow for deeper, more meaningful exploration of key ideas, events, principles, etc.	Renzulli’s Type I activities Parallel Curriculum’s “Curriculum of Connections” theme
Design and Technology	Twenty-first century skill development in technology research, metacognition, thinking, and communications.	Renzulli’s Type II activities Parallel Curriculum’s “Curriculum of Practice” theme
Creative Productivity	To engage in real world, authentic problem solving by responding to themes presented earlier, using skills developed in the Design and Technology classes	Renzulli’s Type III activities Parallel Curriculum’s “Curriculum of Practice and Identity” themes
Health and Wellness (integrated throughout the day)	To engage in healthy behaviors and movement to encourage physical and mental health. To learn affective and social skills.	Renzulli’s Type II activities Parallel Curriculum’s “Curriculum of Identity” theme

Middle School Electives

TV News Crew:

Students will work together to create and produce the daily announcements for middle school and elementary school. Students will write scripts, record, and edit materials for the announcements.

Physical Education:

Each student will learn lifetime activities that help maintain wellness. Students are to have fun and enjoy physical activity in a safe and healthy environment. Students will be able to understand and play a variety of sports such as flag football, soccer, basketball, kickball, and baseball. Students will follow the rules of the game and show appropriate sportsmanship during the events.

Band 1,2,3:

Band students will learn foundational instrumental skills, critical & creative thinking skills, and an appreciation of music.

Each class will build and reinforce from the previous class in teaching vocabulary, technique, breathing, posture, instrument care, and basic fundamentals of sound & notation. Students will learn how to practice and grow on their instrument, in their section, and the full ensemble. Additionally, theory, critiquing and analyzing skills. Students will have a chance to perform for classmates, school, and parents throughout the year.



Pre-Veterinary I

Students will gain knowledge and skills related to caring for animals, researching animal science, and understanding how you can support animal life and conservation.



Engineering:

Students will explore the different engineering disciplines through hands-on projects while developing engineering skills to solve real-world

problems. Each topic will allow students to gain a better understanding of the careers and life of an engineer in their respective discipline. They will be building technical skills as they work through a project's life cycle: imagining, designing, building, testing, and iterating.

Student Assistant:

This course is for students who are interested in exploring leadership abilities and have an interest in becoming an educator. Students will assist teachers with classroom materials and support students within the classroom. Students will be able to learn about the field of education and basic skills of working within a school.

Theatre:

Students will be able to use self-expression through creating monologues, dramatic activities, and cultural expression. Students will perform in class and in school events as a part of class participation.

Chorus:

Chorus: Students will be given a visual assessment to understand the performing patterns of each student's voice. The students will work on improving vocal tone, pitch, and volume during Chorus. The class will learn a variety of songs and be provided with opportunities to showcase their singing capabilities during school events and assemblies.

Robotics:

Students will learn about the fascinating world of Robotics, as they apply their engineering skills to design and build robots to complete STEM based objectives. Students will learn robotic hardware and software with activities that will boost technical and creative skills, critical thinking, and problem-solving. Students will build their knowledge through projects and learn about parts, design, programming, building, and testing

Computer Programming:

In this class, the students learn how to create functional and well-designed web page and websites using HTML and CSS coding. Since this class is primarily design oriented, students explore

Middle School Electives, cont.

concepts like color and typography, layout, Gestalt, navigation, content writing, SEO, and other designer topics. Furthermore, they learn about the differences between designing for web pages, and designing for other print and electronic media.

Medical Detective:

Students become medical detectives while they solve real-life medical mysteries by collecting clues and analyzing data to diagnose and provide treatment. Investigators will learn some basic medical terminology, discover how doctors analyze and solve medical puzzles, and learn about the applicable physiology and pathophysiology as they investigate various types of medical cases.

Extracurricular Activities

Sports Programs

Competitive/Intramural Sports (flag football, basketball)

Volleyball

Track & Field

Cross Country

Triathlon Club

Flag Football Club



**GSGL competes against SCPS middle schools for volleyball, basketball, track & field, and cross country.*

Clubs & Organizations

Middle School Ultimate Fitness Club

National Junior Honor Society

Student Government

Future Educators of America

Odyssey of the Mind Team

Chess Club

Rock Band

FCA

Math Club

Chorus



Lego Robotics

Origami Club

Art Club



Galileo vs. Pre-IB

		 galileoschool FOR GIFTED LEARNING
Prepares Students for High School IB Curriculum	✓	✓
Interdisciplinary Studies	✓	✓
Long-term Projects	✓	✓
Service Learning	✓	✓
Real World Applications	✓	✓
Research/Independent Study	✓	✓
Differentiated Instruction	✓	✓
Self-Management Skills	✓	✓
Student Choice	✓	✓
Kinesthetic Movement	✓	✓
Curriculum Compacting		✓
Flexible Seating		✓
Small Campus		✓
Lessons Taught Infusing Gifted Framework		✓