



# **Gwinnett School of Mathematics, Science, & Technology**

## **Informational Booklet 2008 - 2009**



**Gwinnett School of Mathematics, Science, and Technology  
100 Building, 3737 Brock Road  
Duluth, GA 30096  
678-473-6292  
[www.gsmst.org](http://www.gsmst.org)**

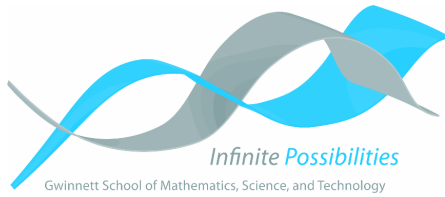
**No student shall be denied the opportunity to participate in any program or activity on the basis of gender, race, color, creed, religion, belief, national origin, disability, or ethnic group.**



# **Gwinnett School of Mathematics, Science, & Technology Informational Booklet**

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## **Words from the Dean of Academics**

I am extremely excited and honored to be a part of this new learning initiative. The vision of Gwinnett County Public Schools is to be a system of world-class schools where students acquire the academic knowledge and skills to be successful as they continue their education at the postsecondary level and/or enter the workforce. The Gwinnett School of Mathematics, Science, and Technology (GSMST) was created with this vision in mind. It will nurture and maximize the talents of each student through a unique, challenging, and integrated curriculum that will result in a world-class school.

The Gwinnett School of Mathematics, Science, and Technology will be at the forefront of education in Georgia, in the nation, and in the world. We are dedicated to helping our students learn the skills and knowledge that will lead to their future success. Our academically challenging curriculum will push students to higher levels of learning and application of that learning. I truly believe that the education our students attain will lead them to future acceptance, attendance, and graduation from the most prestigious universities in the world.

This is a vision I believe we all can embrace... a vision of excellence and infinite possibilities. As we kick off the second year of this school, it is critical that we work together and focus on the best interests of GSMST students. My door is always open to our students, parents, and teachers. Please feel free to contact me with any ideas you may have on how we can extend learning and opportunities for students.

We are embarking on an incredible journey... one with infinite possibilities. Let's blaze a trail of excellence!



Banks Bitterman  
Dean of Academics  
The Gwinnett School of Mathematics, Science,  
and Technology  
Banks\_bitterman@gwinnett.k12.ga.us



## **Overview of GSMST**

### **GSMST Mission**

The mission for The Gwinnett School of Mathematics, Science, and Technology is to nurture the talents of high potential students through a unique, challenging, and integrated curriculum with a focus on mathematics, science, and technology.

### **Background and Development**

GCPS researched national models of math/science-focused secondary schools. Research included on-site visits, conferring with leadership of schools, and reviewing curriculum.

The charter application was approved by GCPS Board of Education in March, 2006

The GSMST charter status allows flexibility for design of curriculum and schedule to facilitate vision for the school. This vision for the school is shared with multiple audiences, including the Superintendent's Council of Community Advisors, the Gwinnett Neighborhood Leadership, Chamber of Commerce Representatives, and a Bioscience Committee.

### **Curriculum Focus and Development**

GSMST Courses of study focus on three primary areas: bioscience, engineering, emerging technology. Humanities studies integrate social sciences, history, culture, fine arts, literature, and composition. Fine Arts offerings will include links to technology. Foreign Languages focuses on emerging world languages and fluency in technical and business language. Curriculum teams including GCPS master teachers and post-secondary representatives reviewed curriculum from model math/science schools and drafted curriculum AKS for grade 9, with 9-12 perspective. Proposed curriculum was presented to the Advisory Board representing 57 Georgia companies and post-secondary educators in the fields of bioscience, engineering, and technology for review and feedback. Curriculum AKS and Advisory Board comments were submitted to district GEMS Oversight Committee of over 40 parents, community members, business leaders, post-secondary representatives, and GCPS educators for validation. Curriculum as approved by GEMS Committee was submitted to Board of Education on April 12, 2007 and adopted. The process for curriculum AKS development will be continued in 2008-2009 for upper level courses. Gwinnett School of Mathematics, Science, and Technology, its administrators, teachers, and other staff are committed to helping our students achieve their potential and maximize their opportunities and infinite possibilities. The District Office staff is focused on long-term support and leadership on behalf of this school and its students.

### **Technology**

Technology plays an integral role in supporting the curriculum and instruction at GSMST. Lenova made a generous donation for all GSMST students to have personal laptops. With the implementation of the 1:1 laptop rollout, students have instant access to instructional material and documentation to supplement their classroom research. Students also use their laptops to access the GCPS e-Companion on-line learning site for Health and PE, enter and access science lab data or design environmental structures with the latest AutoCAD software. Teachers and students also have access



to Promethium active boards, overhead LCD Projectors, DVD players, a Foreign Language lab, an interactive music lab, and student response systems to further engage students in the classroom and prepare them to be successful in the global workforce of the 21<sup>st</sup> century.

## **Facilities**

GSMST is temporarily housed on the Duluth High School Campus, Building 100, for years 2007-2008, 2008-2009, 2009-2010. GSMST is a separate school from Duluth High School, although it resides temporarily on the Duluth campus. Renovations updated and modernized 18 classrooms, and offices. The GSMST signature building and permanent location will be at the geographic center of Gwinnett County near Sugarloaf/Old Norcross, at the former site of Benefield Elementary School. The anticipated move to new building will occur in 2010-2011. The 2007 Freshman Class will graduate from the new GSMST signature building. The new building is designed for a maximum of 1,200 students (maximum of 250 per grade level), with the design driven by curriculum and flexibility. The building incorporates a high-tech look, with project-based work areas for students', university and business collaboration.

## **Contact Information**

We are located at the 100 Building, 3737 Brock Road, Duluth, Georgia, 30096. Our Telephone number is 678-473-6292. Please email Banks Bitterman, Dean of Academics, at [Banks\\_bitterman@gwinnett.k12.ga.us](mailto:Banks_bitterman@gwinnett.k12.ga.us) or Carissa Klatka, Admissions Counselor, at [Carissa\\_klatka@gwinnett.k12.ga.us](mailto:Carissa_klatka@gwinnett.k12.ga.us) for information regarding admissions.

## **Transportation**

Transportation will be offered when GSMST moves to the signature building, but is not currently offered while located at 3737 Brock Road. Parents must provide transportation to and from school.

## **Enrollment**

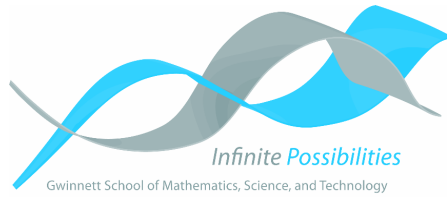
GSMST is open to all Gwinnett resident 8th grade students, with the registration process occurring during the winter of each year. Approximately 200 to 250 9th graders are expected to matriculate to the school each year. Maximum enrollment of GSMST is expected to be at approximately 1200 for the 2010-2011 school year. All Gwinnett middle school zones of attendance are represented in the 2007-2008 student population.

## **Faculty and Staff**

The GSMST Faculty consists of the Academic Dean, fourteen teachers, one counselor, and one graduation coach. Teachers are experts in their fields, with an array of professional experience. The SASI clerk, administrative assistant, stellar sub, and bookkeeper complete the 2007-2008 staff. Additional teachers and staff will be hired for the 2008-2009 school year.

## **PTSA**

GSMST has a variety of volunteer opportunities for parents to get involved. The PTSA is in its Charter Year and continues to contribute greatly to the success of GSMST.



## **GSMST Program of Study** **GSMST 9<sup>th</sup>/10<sup>th</sup> Course of Study**

### **9<sup>th</sup> Grade Curriculum**

#### **Required Courses:**

##### **Science:**

Advanced Physics – Year Long – 1.0 Unit  
Advanced Chemistry – Year Long – 1.0 Unit

##### **Mathematics:**

Accelerated Math 1 and Accelerated Math 2 – Year Long – 2.0 Unit

##### **Engineering:**

Fundamentals of Engineering – Foundations Year Long – 1.0 Unit

##### **Foreign Language** (Students choose between the following courses below):

Spanish I – Year Long – 1.0 Unit  
Spanish II – Year Long – 1.0 Unit  
Chinese I – Year Long – 1.0 Unit  
German I – Year Long – 1.0 Unit

##### **Language Arts:**

9<sup>th</sup> Grade Language Arts – Year Long – 1.0 Unit

#### **Electives (Students have one elective for the 9<sup>th</sup> Grade Year):**

##### **Social Sciences:**

AP Human Geography – Year Long – 1.0 Unit

##### **Fine Arts:**

Orchestra – Year Long – 1.0 Unit  
Band – Year Long – 1.0 Unit  
Chorus – Year Long – 1.0 Unit  
Foundations of Art – Year Long – 1.0 Unit

##### **Online Health/PE:**

Online Health – One Semester – 0.5 Unit  
Online PE – One Semester – 0.5 Unit



## **10<sup>th</sup> Grade Curriculum**

### **Required Courses:**

#### **Science** (Students must be recommended for AP Biology):

Advanced Biology – Year Long – 1.0 Unit

AP Biology – Year Long – 1.0 Unit

#### **Mathematics** (Classes will be taken in a 101 minute block):

Accelerated Math 2 and Accelerated Math 3 – Year Long - 2.0 Units

#### **Engineering:**

Fundamentals of Engineering II – Concepts – Year Long – 1.0 Unit

#### **Foreign Language** (Students choose between the following courses below):

Spanish II – Year Long – 1.0 Unit

Spanish III – Year Long – 1.0 Unit

Chinese II – Year Long – 1.0 Unit

German I – Year Long – 1.0 Unit (1<sup>st</sup> Year offered 2008-2009)

#### **Language Arts:**

Humanities II - 10<sup>th</sup> Grade Language Arts/World History – Year Long – 2.0 Unit

### **Electives (Students have one elective for the 10<sup>th</sup> Grade Year):**

#### **Social Sciences:**

AP World History – Year Long – 1.0 Unit

#### **Fine Arts:**

##### **Music:**

Orchestra II – Year Long – 1.0 Unit

Band II – Year Long – 1.0 Unit

Chorus – Year Long – 1.0 Unit

##### **Art:**

Architectural Design – Year Long – 1.0 Unit

Digital Photography – Year Long – 1.0 Unit

Drawing and Painting – Year Long – 1.0 Unit

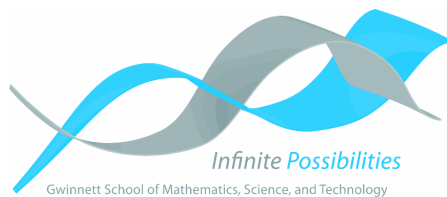
Electronic Media – Year Long – 1.0 Unit

Pottery and Sculpture – Year Long – 1.0 Unit

#### **Online Health/PE:**

Online Health – One Semester – 0.5 Unit

Online PE – One Semester – 0.5 Unit



## GSMST 11<sup>th</sup>/12<sup>th</sup> Course of Study

11th GRADE	12th GRADE
<b>Math</b> – AP Calculus AB; AP Calculus BC; AP Statistics	<b>Math</b> – Multivariable Calculus w/ Linear Algebra; Mathematical Modeling; Differential Equations; Calculus II, Calculus III, College Articulated Credit
<b>Science</b> – Choices of Biotechnology; Biochemistry, Pathophysiology & Pharmacology; Genetics; Nanotechnology; AP Physics, AP Chemistry, AP Environmental Science, Anatomy and Physiology	<b>Science</b> – Choices of BioTech, Biochemistry, Pathophysiology & Pharmacology; Genetics; Nanotechnology; AP Physics, AP Chemistry, AP Environmental Science; Mentorships
<b>Humanities</b> – American Literature/U.S. History, AP U.S. History, AP World History	<b>Humanities</b> – British Literature, AP English Literature, AP Political Systems, AP Economics
<b>Foreign Languages</b> – Chinese III; Spanish III, IV;	<b>Foreign Languages</b> – Chinese IV; Spanish IV,V;
<b>Fine Arts</b> – 2D-3D Art; Classical Piano, Chorus, Strings Symphony; Winds Symphony;	<b>Fine Arts</b> – 2D-3D Art; Classical Piano, Strings Symphony; Chorus, Winds Symphony;
<b>Engineering</b> – Biomedical; Aerospace Design; Software Engineering; Robotics	<b>Engineering</b> – Biomedical; Aerospace Design; Software Engineering
<b>Research and Design</b>	<b>Research and Design</b>



## **GSMST 9th Grade Course Offerings**

### **Advanced Geometry with Discrete Math (1.0 Unit) & Advanced Algebra II with Trigonometry (1.0 Unit)**

Students entering GSMST Math classes should enter with an extensive knowledge of linear functions; this should include solving linear equations, graphing linear equations, and solving system of linear equations. Students should also have some knowledge of quadratic functions. They should be able to solve quadratic functions by graphing, factoring, and using the quadratic formula. Basic knowledge of the three basic trigonometric functions is expected. Students should be able to use the Pythagorean Theorem and trig ratios to solve right triangle problems. Students must be able to simplify radical expressions. Students should also be familiar with basic geometric formulas involving area and volume of the more common figures. Students should enter GSMST with the expectation of taking notes and practicing, at home, what they learn in class. Students will also need to be somewhat familiar with a graphing calculator.

### **Advanced Chemistry (1.0 Unit) & Advanced Physics (1.0 Unit)**

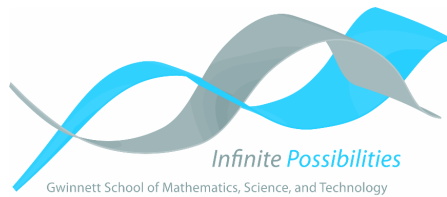
9th Grade Science (Physics and Chemistry) consists of courses that will use a variety of educational approaches to provide students with the basic conceptual framework, factual knowledge, and analytical skills necessary to deal critically with the rapidly changing sciences of chemistry and physics in an integrated format. Students should be proficient in Algebra I skills, with emphasis on linear equations, and have a working knowledge of metric conversions. Technology skills will be utilized on a daily basis to enhance learning.

### **Fundamentals of Engineering (1.0 Unit)**

Fundamentals of Engineering introduces students to the core principles of engineering. Engineers are considered “doers” since they “do” math and science to develop solutions to real problems. Students will learn about areas of specialization within engineering and engineering design procedures, and will apply engineering tools and procedures as they complete hands-on activities. Students should be comfortable measuring items using various rulers, making sketches of their design ideas, and using word processors, spreadsheets, and graphical computer programs to present their solutions. Students will be exposed to industry standard computer aided drawing and design (CADD) as well as project management software. The essential characteristics of a successful engineering student include enthusiasm to learn new concepts and self-motivation. Students should be systematically organized. Students should be tenacious- engineers never give up! The solution may not be apparent, but if there is a problem...then there must be a solution! Students must develop self discipline in order to recognize, develop and follow priorities.

### **9th Grade Language Arts (1.0 Unit)**

Ninth grade language arts in the Gwinnett School of Mathematics, Science, and Technology teaches foundational principles for integrated learning through the study of literature, language, composition, listening, speaking, vocabulary, and research skills. The study of literature focuses on genres (non-fiction, short story, novel, drama, poetry, epic) and integrates with the subjects of mathematics,



science, engineering, geography, foreign languages, music and fine arts in content and application. Each genre unit focuses on enhancing language arts skills and includes assignments that involve non-fiction application in the core subjects of mathematics, science and technology.

### **AP Human Geography (1.0 Unit)**

AP® Human Geography is a year-long course designed to meet or exceed the experience of an introductory one-semester college human geography course. The purpose of the AP course in Human Geography is to introduce students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students employ spatial concepts and landscape analysis to examine human social organization and its environmental consequences. They also learn about the methods and tools geographers use in their science and practice.

### **Spanish I (1.0 Unit)**

In Spanish I, students will cover the material over two semesters. All students will develop proficiency in the three modes of communicative competence: interacting with other speakers of Spanish, understanding oral and written messages in Spanish, and making oral and written presentations in Spanish. Emphasis is placed on the use of Spanish in the classroom as well as on the use of authentic materials to learn about the culture.

### **Spanish II (1.0 Unit)**

In Spanish II, students will cover the material over two semesters. All students are required to have mastered Spanish I curriculum. All students will develop proficiency in the three modes of communicative competence: interacting with other speakers of Spanish, understanding oral and written messages in Spanish, and making oral and written presentations in Spanish. Emphasis is placed on the use of Spanish in the classroom as well as on the use of authentic materials to learn about the culture.

### **Chinese I (1.0 Unit)**

Chinese Level I, covering a two-semester study of Chinese, is designed for students who have had no prior exposure to Chinese language. While it aims to help students learn four skills (speaking, listening, reading, and writing), particular emphasis will be given to developing students' communication skills. Upon the completion of this course, students will be able to 1) read the *Pinyin* system; 2) conduct simple conversations in Chinese on a limited range of topics; 3) write simple narratives about daily activities; and 4) use Chinese word processing software. During this course, various aspects of Chinese culture will be introduced, and students will learn the language through the cultural context.

### **Foundations of Studio Art (1.0 Unit)**

This course will introduce students to the many aspects of Studio Art which include art production, art history, aesthetics and criticism. Areas of exploration in two-dimensional design will include drawings, paintings, collages, and printmaking with an emphasis on skill acquisition and craftsmanship. Three-dimensional instruction includes the creation of pottery, sculpture, and utilitarian objects with an emphasis on craftsmanship and on design elements and principles. The history of art from pre-history through modern times will be presented.



### **String Symphony (1.0 Unit)**

Students continue to acquire skills in music reading and performance techniques. A variety of literature from various historical periods will be performed with emphasis placed on standard orchestral repertoire; independence and confidence in performance situations; and understanding of the theoretical and historical basis for the music performed. Students also explore the composition and improvisation of instrumental music. Students are expected to participate in all concerts and rehearsals outside the normal school day.

### **Wind Symphony (1.0 Unit)**

Students acquire advanced skills in music reading and performance techniques. A variety of literature of various historical and contemporary styles and genres will be performed. Students extend their knowledge of music theory, including analysis of form and style. Students also explore the composition and improvisation of instrumental music. Required out-of-class activities, as stipulated by the teacher, will determine a portion of the student's grade.

### **Chorus (1.0 Unit)**

Students acquire skills in music reading and performance techniques. A variety of literature from various historical periods is performed with emphasis placed on standard choral/small-ensemble repertoire, independence and confidence in performance situations, and understanding of the theoretical and historical basis for the music performed. Students also explore the composition of vocal music. Students are expected to participate in all concerts and rehearsals outside the normal school day.

### **On-Line Health through Gwinnett On-Line Campus (0.5 Unit)**

This course is a graduation requirement designed to offer a practical approach to health topics. The course covers knowledge and skills necessary for personal health and well being and the prevention and treatment of injury. Additional information covered includes: disease prevention, relationships, consumer health, the life cycle, tobacco, alcohol, and other drug use prevention. *\*\*Description taken from Gwinnett County Online Campus Website.*

### **On-Line PE through Gwinnett On-Line Campus (0.5 Unit)**

This course is a graduation requirement and a prerequisite to all elective physical education courses. The course provides the students with a sound, basic knowledge and understanding of how to attain a healthful level of physical fitness. It is recommended that Introduction to Lifetime Fitness be taken in the 9th or 10th grade. *\*\*Description taken from Gwinnett County Online Campus Website.*



## **Student Support Services**

### **GSMST Guidance Department**

The GSMST Guidance Department follows a comprehensive guidance program to support the academic, social, and emotional needs of the students. The department consists of the head counselor and the graduation coach. Counseling services include individual sessions, small groups, and classroom guidance that focus on the needs of all students, such as career exploration and academic advisement, as well as crisis counseling and social/emotional development. GSMST also develops school-wide programs that best support student success. Parent/teacher conferences are scheduled through the guidance department and are held before and after school. Additional programs developed through the guidance department include peer leadership, advisement, and peer tutoring/mentoring.

### **GSMST Intervention Success Program**

Intervention is a program developed to support students by giving them additional time with teachers and peer tutors. Progress reports are sent to parents and students each Monday morning by 8:50 am. Students with an average below 80 in a class are required to attend Intervention during Excel period 3 days a week and are strongly recommended to attend additional Intervention sessions before school and after school. Intervention provides a forum for student to ask questions and review material covered in class. Students with grades of 80 and above also welcome to attend Intervention. Intervention is scheduled each Monday, after progress reports are sent out. Students assigned to Intervention each week are notified in writing by the end of the school day on Monday through the Intervention Notification Form, and e-mails are sent to parents.

### **GSMST Enrichment Program**

Students not attending Intervention during Tuesday and Thursday Excel periods have the opportunity to see teachers for Enrichment. This is a time for students to work on projects with teachers and further explore topics for curriculum mastery.

### **GSMST Peer Tutoring Program**

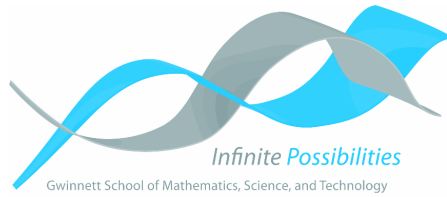
Peer Tutoring is available Tuesdays and Thursdays during Excel, as well as before school. Peer Tutors have an A average in the subject that they tutor and are recommended by their teachers. Tutors earn community service hours for the time that they tutor.

### **GSMST Student Support Team Program**

GSMST's Student Support Team (SST) Program allows for individual student support, following the DOE tiers of Intervention. SSTs are scheduled through by the SST coordinator as needed throughout the school year.

### **GSMST Parent Connect Nights**

Parents are invited to Parent Connect Nights held throughout the year to maintain parent support and communication between home and school. These meetings allow time for parents to meet with their students' teachers, experience class lessons, receive school-wide program information, and celebrate student success through concerts and Honors Nights.



## **GSMST Partnership Program**

The vision of Gwinnett County Public Schools is to be a system of world-class schools where students acquire the academic knowledge and skills to be successful as they continue their education at the postsecondary level and/or enter the workforce. The Gwinnett School of Mathematics, Science, and Technology (GSMST) was created with this vision in mind. It will nurture and maximize the talents of each student through a unique, challenging, and integrated curriculum that will result in a world-class school. However, in order for us to be a world class school – we need the help of our business, industry, and university partners. The ideal is to take our core business of teaching and learning to another level. In order to accomplish this goal, we must create opportunities for real world, meaningful experiences inside and outside the classroom. With the help and collaboration of our advisory board, we will develop these opportunities and maximize our students’ educational abilities.

The “Partnership Program” will provide our students with exposure to real world practitioners from business, industry, and university. This program will provide students with an incredible outlet for enrichment and also provide business, industry, and university leaders to work with the incredible students we have at GSMST! It is important that students have many different opportunities for exposure and experience with different educational and career tracks so that they can make informed decisions on the educational and career track that may wish to pursue. This program is another enrichment program that will bring GSMST closer to accomplishing its mission and maximize the educational abilities and opportunities of all our students at GSMST. We have just begun to explore!

### **The Partnership Program will contain Four Phases:**

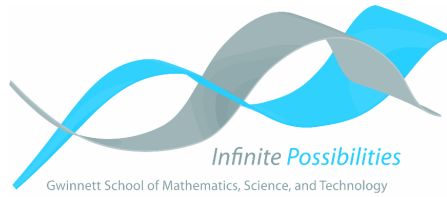
**Phase I – GSMST Student Exposure to Different Businesses, Industries, and Universities**

**Phase II – GSMST Student Site Visits**

**Phase III – GSMST Student Limited Simulated Work Experiences**

**Phase IV – GSMST Student Simulated Work Experiences and Internships for Top  
GSMST Students**

Phase I will be the focus of students in their ninth grade year at GSMST. Phase I enables students to participate in round-table discussions to learn about a variety of business, industry, and educational opportunities. Students will have a sound foundation for discussion when they participate in the round-table discussions. Students will be provided enrichment time to research the company or school each partner represents and develop questions and discussion topics to raise the round-table discussions to another level. After the first round-table discussion, students will meet in collaborative groups with teachers to determine follow-up discussion topics. The partner will come back out for a follow-up round-table the following week. This process will enable the student as well as the partner to develop a relationship that will provide for infinite possibilities and opportunities for the future.



## **Clubs and Activities**

GSMST students develop connections between peers and teachers through many campus clubs and activities. Student spirit is evident in events such as spirit week and club competitions. Citizenship is also developed through various fund-raising activities for local and national charities and organizations. All GSMST teachers sponsor at least one club or activity and are committed to the success of all students.

### **GSMST Robotics Club**

The robotics club challenges students working in peer teams and with professional mentors to solve an engineering design problem in an intense and competitive way. The club provides life-changing, career-molding experiences and is simply a lot of fun. The club's robot construction activities revolve around specifications set each year by the FIRST (For Inspiration and Recognition of Science and Technology) organization. The club's robotic teams participate in local, regional and national robotics competitions.

### **Science Olympiad**

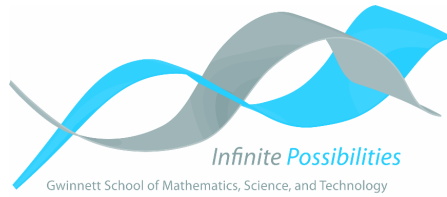
Science Olympiad teams compete in events covering all fields of science, as well as engineering and technical communications. Each year some new events are introduced, and others are dropped in order to keep the program fresh. Many of the events are hands-on and some also require constructing something prior to or during the competition. All events require students to use higher order thinking skills rather than rote memory and instant recall. The ability to work effectively as a team is also taught since most events involve two or more team members. Each team member generally participates in several different events at a tournament.

### **Model United Nations**

Model United Nations teaches students the art of consensus building, as well as the skills of debate and research by having students simulate actual United Nations General Assembly, Security Council, EcoSoc, and Human Rights Council "discussions" concerning relevant issues of our times. Students research their assigned countries and role play the ambassador of their country at MUN conferences around the state with other High School Model UN clubs.

### **Debate Team**

Students learn the rules of debate, preparing for each debate through research and practice. The GSMST Debate Team will compete at local and regional levels.



### Student Government Association

Student Government Association is an official link between the student body and the faculty and administration of GSMST. SGA serves as a governing body for the development and promotion of student affairs. This organization shall also serve to advance and improve student participation in school activities, promote school spirit, and encourage civic responsibilities. SGA will sponsor and participate in numerous activities/events throughout the school year to help form a closer relationship between the students, faculty, and administration at GSMST.

### Art Club

The Art Club is designed to expose students to more artistic experiences such as mural painting and jewelry making. All students are welcome to join.

### Math Team

The GSMST math team involves math students who compete against other students throughout the county and state. Students must maintain at least a 90 average in their current math class and enjoy doing many different types of math problems to join the math team

### Mu Alpha Theta

Mu Alpha Theta is a national mathematics honor society. Members must have at least a 90 average in their current math class, as well as a 3.0 grade point average in the core classes to be eligible for membership. One of the primary goals is to offer math tutoring to students struggling in math. Tutoring will be offered before school on Tuesday, Wednesday, and Thursday mornings, as well as during Excel on Tuesday, Wednesday, and Thursday. Mu Alpha Theta meets once per month.

### Writers Club

The Writers Club was created to provide a place for student writers to meet and to discuss their works in progress and get feedback and constructive criticism on their writing. The purpose of Writers Club is to provide encouragement, support, and information to the GSMST writing community.

### The Literary/Fine Arts Webzine

The Literary/Fine Arts Webzine serves as the voice, gallery and concert stage of the GSMST creative community. Our mission is to share the writings, stories, poems, videos, art, and music created by students and teachers at GSMST.

### Ecology Club

The focus of ECOS is the performance of community service and education that is directly related to environmental concerns.

### Chinese Club

Chinese club provides students with opportunities to learn and appreciate various aspects of Chinese culture. Students participate in activities such as watching Chinese movies, learning about Chinese food, playing Chinese chess, etc.



### Tau Beta Pi

The mission of Tau Beta Pi is to establish and support math and science intervention programs which enhances the preparation of students in the K-12 system, thus enabling them to qualify for the pursuit of careers in STEM disciplines, preparing them for competitive success in the global marketplace, and equipping them for driving the nation's economy.

### Yearbook

Yearbook club is responsible for creating the yearbook for the Gwinnett School of Mathematics, Science & Technology. We meet Fridays in Excel, alternate Thursday afternoons from 4:10-4:50, and other times as needed. Students must be available to cover off-site events and work on spreads online at other times, with particular emphasis on shipment deadlines.

### Spanish Club

The Spanish Club explores the various interests related directly to Spanish-speaking countries. Students learn the culture and gain awareness of the livelihood of other countries. Members will gain knowledge of historical information and civilization in Spanish-speaking countries.

### Navigators

Navigator members are students dedicated to building and assisting GSMST through community outreach and service. Navigators will serve and assist students, parents, visitors and the community.

### Peer Leadership

The GSMST Peer Leadership program provides an opportunity for students to develop leadership skills, as well as interpersonal skills that will be valuable throughout their lives. Peer Leaders will undergo training on communication skills, leadership skills, and peer mediation. With the model of excellence as their standard, GSMST Peer Leaders will serve as spokesmen and spokeswomen for GSMST.

### Digital Media Club

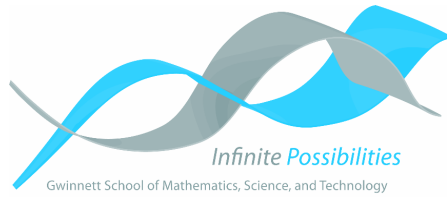
Provides an opportunity for students to explore, develop and create digital multimedia.

### Key Club

A community service organization requiring 50 hours of service each year.

### Scholars Bowl

Scholars' Bowl is a competitive group that participates in area academic tournaments. Topics include art, literature, math, science, music and history.



## **Summer Activities**

### **GSMST Summer Boot Camp**

Incoming GSMST 9<sup>th</sup> grade students are required to attend the GSMST Summer Boot Camp. Boot Camp will be held Monday, June 9 – Friday, June 13, 8am – 4pm. Activities during Boot Camp include:

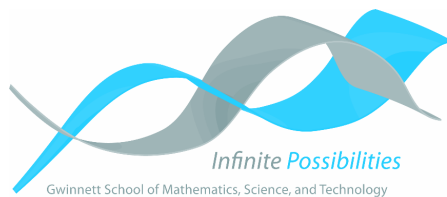
- Advanced Geometry, Advanced Chemistry, Advanced Physics, and Engineering Classes
- Team-Building Activities
- Study Skills Lessons
  - Note-Taking Skills
  - Organization
  - Time Management
- Laptop/Computer Applications Introduction
- Club/Activities Introduction
- Summer Research Project

### **GSMST Summer Research Project**

Students will complete a summer reading and research project that will expose them to high-level reading and allow them to begin exploring their interests in contemporary issues of math, science and technology. This project will prepare students for the upcoming school year and allows them time to thoroughly research their topics. The summer research project will be explained in-depth at the GSMST Summer Boot Camp.

### **GSMST Book Club**

Each summer, GSMST will choose a book to read as part of the GSMST Book Club. Each teacher is the advisor for a book club and reads the book as well. At the beginning of September, GSMST holds “Book Club,” where each club meets for one hour to discuss the book. Students receive a participation grade for the book club session, as well as a quiz grade for a short quiz at the start of the session. GSMST Book Club allows teachers and students time to build further connections both inside and outside the individual classrooms. Students will sign up for a book at the GSMST Summer Boot Camp. Past books include both fiction and non-fiction on a wide range of topics.



## **Words from GSMST Students**

### **Studying at GSMST**

GSMST opens the doors to a world of opportunity. Our school is extremely challenging and gives students that extra push needed to realize their academic potential and achieve success. Rising students should anticipate a very heavy workload and will want to learn good note-taking, organizational, and time-management skills. All are extremely important to student success as you embark on your ninth grade year. Rising ninth-graders should know that success at GSMST takes tremendous dedication and studying. We prepare each night for upcoming tests, assignments, and labs. Do not be discouraged if you are not making A's and B's with ease like you used to; it is much more challenging and will take more work than middle school. Our teachers offer help in everything. Be prepared to take advantage of tutoring opportunities before, during, and after school. GSMST is a wonderful experience, and I would recommend that all students be prepared for a rigorous workload, take a deep breath, and not stress out. GSMST allows students to discover their infinite possibilities to achieve excellence!

### **A Week in the Life of a GSMST Student**

"Ring, ring!" ...There goes my alarm again – another week begins at GSMST. Every Monday through Friday at 6:00am, my cell phone alarm rings, and I wake up...sort of. I get ready for school, grab my GSMST laptop, and eat as we battle the traffic along the way. Monday mornings, I meet friends in the cafeteria to work on upcoming projects or ask Mr. Cagle for help with my Geometry homework. Tuesdays through Thursdays, I can head upstairs at 8:10 to meet with one of my teachers for tutoring or enrichment opportunities. There is no lack of teacher support here at GSMST! As we head to our first class, I hear supportive words from our Dean, Mr. Bitterman – wishing the Math Team luck and reminding us to hustle up as the late bell is nearing.

Throughout my school day, from 9:00am to 4:00pm, I move from class to class, now used to all the incredible technology surrounding us like the interactive white boards, the scanners, the online campus tools, and the very laptop I carry with me at all times! This week we are all preparing for our Intergalactic Alien Presentations. A few weeks ago, Mrs. Walker and Mrs. Easley "identified" all of us GSMST students as "aliens" from other planets, and demanded that we cooperate with documentation and information about our home planets. This school-wide integrated project allows us to apply our knowledge and skills from all of our classes in a creative and fun way. First stop is Chemistry where we're using the Student Response Systems to assess our newly acquired knowledge of the periodic table and chemical compounds. Next period is Engineering, where we're completing the construction of a water tower. However, because we're "aliens," we're using our chemistry knowledge of compounds and elements to establish the correct specifications for a tower that holds a substance other than water, as our species isn't dependent on water as a life source like humans are. In third period, Mr. Garrison uses his expert skill with the smart board to teach us a discrete math lesson on base number systems that will allow us to develop the "alien math" for our planet, based on the number of "fingers" our species has. Dr. Richardson's orchestra class is next, and I talk with him briefly about the alien anthem I'm working on for our final project presentation. Next is Dr. Zhu's Chinese class, which not only gives me an edge over the competition when I apply for college, but

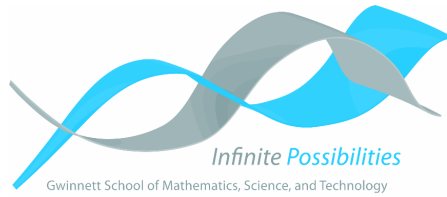


also gives me some great ideas for the alien language lesson we have to teach during our Language Arts presentation.

On the way to lunch, I drop by Ms. Biehl's room to ask a quick question about the upcoming SGA meeting. The cafeteria below us serves my lunch, and I talk to my friends about upcoming school events – this week is planning for the Fall Dance! After lunch, I head to our Excel period. This is the time when we catch up with our school work, meet with our advisor, go to our club meetings, or attend a seminar with an industry partner – like Scientific Atlanta or the Georgia Aquarium. Today in Excel, we have a special peer teaching opportunity. Within each Excel class, all of Mr. Garrison's "aliens" pair up with other student "aliens" from Ms. Miles class and use the lesson on base number systems, which is posted on our online campus site, to teach "alien math." It's a pretty cool cooperative learning experience!

In my last two classes today, Language Arts and Human Geography, we're finishing up our culture portion of the Alien Project. Ms. Hammontree answers my questions about the specific government and society structure that I've chosen to develop for my planet's culture, and in Language Arts, Mrs. Easley helps our group edit our short story that defines the hero in our culture. Before I know it, I hear Phoebe and Monica on the afternoon announcements wishing us a great afternoon, along with reminders each day for upcoming events.

Everyone in school gathers in the hallways to catch up with friends as we head outside to the sea of cars anxiously waiting to take us home. Mr. Bitterman chats with the parents, making sure all are caught up on current school events and calling them by name, as he safely guides the cars out of the driveway. I get home Mondays – Thursdays at around 5:00pm. I start my homework right away and work on it non-stop. (On Fridays, I stay in school for advanced orchestra.) Without knowing the day is growing darker, I keep working until dinnertime and stop to spend some time with my family. After a few phone calls to friends, I return to my school responsibilities. Ignoring the time, I continue working on homework – our GSMST laptop allows us to e-mail our teachers, virtually turn in assignments, and easily work on our research projects. The homework of infinity is finished a little after 10:00pm. I get ready for bed, read my book, and go to sleep.....dreaming of the infinite possibilities that lie ahead.



## **Admissions: Registration Process**

### **Information Packets and Registration Forms**

Information packets and registration forms will be available starting November 15, 2007 at all GCPS middle schools, on the GCPS website, and on the GSMST website. Information forms and registration packets will be sent through the courier to each middle school. Middle schools are asked to include GSMST registration information in their newsletter to parents. Registration packets include the registration form, information release, transportation agreement, and advisement checklist. Completed registration forms are due to the middle schools by the end of the school day on Friday, February 1, 2008. Students are chosen by a lottery on Friday, February 15, 2008, and acceptance letters will be sent directly from GSMST the following Monday.

### **Advisement Appointment with 8<sup>th</sup> Grade Counselor**

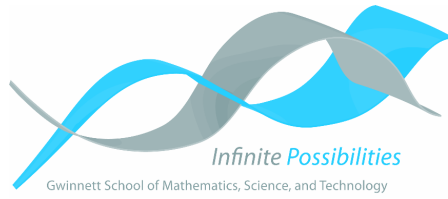
Interested students must make an appointment to meet with their 8<sup>th</sup> grade counselors for an advisement appointment as part of the registration process. Parents are strongly encouraged to attend this appointment. Counselors are asked to use the Advisement Checklist Form as a guide for the advisement appointment. This is an opportunity for students to closely examine their academic history and goals for the future to see if GSMST would be a good fit for each individual student.

### **Indicators of Success at GSMST**

Students interested in registering for GSMST should review the ranges of standardized test scores for students who have been successful at GSMST. Examining these ranges can help guide students in their decisions to determine if GSMST is the best fit for their individual academic success. Data has been compiled in the following table:

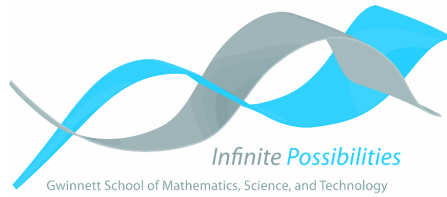
**GSMST Standardized Test Scores**

Test	Test Score Ranges of Students Who Have Demonstrated Success at GSMST
<b>8<sup>th</sup> Grade ITBS – Math</b>	89 <sup>th</sup> percentile and Higher
<b>8<sup>th</sup> Grade CogAT Composite</b>	120 and Higher
<b>7<sup>th</sup> Grade Gateway – LA</b>	550 and Higher
<b>7<sup>th</sup> Grade Gateway - Math</b>	550 and Higher
<b>7<sup>th</sup> Grade CRCT – Science</b>	880 and Higher
<b>7<sup>th</sup> Grade CRCT – Math</b>	880 and Higher



## **Appendices**

1. GSMST Registration Form
2. GSMST Information Release and Transportation Agreement
3. GSMST Advisement Checklist Form



**GWINNETT SCHOOL OF MATHEMATICS, SCIENCE,  
AND TECHNOLOGY**  
2008-2009 Registration Form

**This form and the Advisement Checklist Form must be returned to the Counseling Office of the student's middle school if the student is a GCPS student and returned to the GSMST counseling office if the student is a non-GCPS student BY THE END OF THE SCHOOL DAY ON FEBRUARY 1, 2008.**

**SECTION I:** *(Please print or type)*

Student Last Name		First	Middle	Email Address	
Address				Phone Number	Gwinnett Resident Yes    No
City	Zip Code	County		School Cluster	
School Now Attending				Birth Date	Current Grade
School Address					
Parent/Guardian Name				Parent/Guardian Phone Number	
Parent/Guardian Address (if different from student's address)					
Parent Email Address					
Does the registrant have any siblings that attend Gwinnett School of Mathematics, Science, and Technology? Yes _____ No _____					
How and when did registrant first hear about Gwinnett School of Mathematics, Science, and Technology?					

\_\_\_\_\_  
Parent/Guardian Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Registrant Signature

\_\_\_\_\_  
Date

**No student shall be denied the opportunity to participate in any program or activity on the basis of gender, race, color, creed, religion, belief, national origin, disability, or ethnic group.**



**SECTION II: Information Release** to be completed by student and parent(s) or guardian(s).

**Information Release:** We, the registrant and parent/guardian of named student, hereby request that all school data in support of my registration for admission to Gwinnett School of Mathematics, Science, and Technology be released to Gwinnett School of Mathematics, Science, and Technology and system-level officials. We understand that the information will be used for advisement only and will play NO role in the acceptance of student registrations.

**Yes**  **No**  I, the undersigned parent/guardian of \_\_\_\_\_, agree that information obtained as a part of the registration process is confidential and will not be available for my child's or my review.

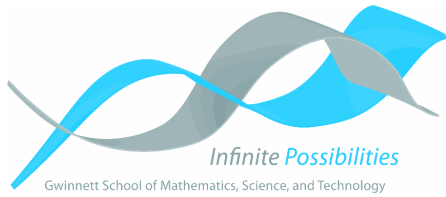
**SECTION III: Transportation Agreement:** To be completed by student and parent(s) or guardian(s).

**Yes**  **No**  I, the undersigned parent/guardian of \_\_\_\_\_, agree that I will provide transportation for my child to GSMST while it is housed at the 100 Building, 3737 Brock Road, Duluth GA, 30096 (Duluth High School Campus). I understand that there is no transportation offered by GCPS while the school is at this temporary location.

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<b>Parent/Guardian Signature</b>	<b>Date</b>	<b>Registrant Signature</b>	<b>Date</b>
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**No student shall be denied the opportunity to participate in any program or activity on the basis of gender, race, color, creed, religion, belief, national origin, disability, or ethnic group.**



## Required GSMST Advisement Checklist Form

Students interested in registering for GSMST must schedule an advisement appointment with their GCPS middle school counselor OR a GSMST counselor in order for the registration process to be complete. Parents must accompany students in the advisement session. This Advisement Checklist Form should be reviewed and completed during the advisement appointment.

**Counselors:** Please place your initials in the blank as you discuss each item with the student at the advisement appointment. Use the attached pages as a guide as you complete this check-list. Your assistance in the GSMST Registration Process is greatly appreciated.

\_\_\_\_\_ Review standardized test scores for students who have been successful at GSMST.

\_\_\_\_\_ Compare student's test scores with scores of students who have been successful at GSMST (provided by student permanent file at middle school or compiled from StART and entered into attached table).

8<sup>th</sup> Grade ITBS

8<sup>th</sup> Grade CogAT

7<sup>th</sup> Grade Gateway

7<sup>th</sup> Grade CRCT

\_\_\_\_\_ Review 9<sup>th</sup> Grade courses and requirements (see attached 9<sup>th</sup> Grade Course Listing)

\_\_\_\_\_ Review GSMST Studying Schedule

\_\_\_\_\_ Review GSMST Intervention Schedule

\_\_\_\_\_ Review "A Week in the Life of a GSMST Student"

\_\_\_\_\_ Discuss requirement for GSMST Summer Boot Camp: June 9 – 13, 2008

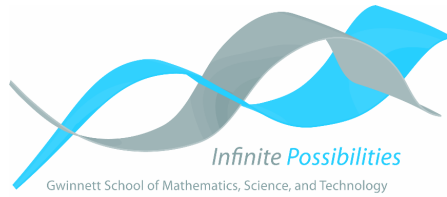
\_\_\_\_\_ Review Student Attendance History – (Provided by middle school)

Advisement Appointment Date: \_\_\_\_\_

Student Signature: \_\_\_\_\_

Parent Signature: \_\_\_\_\_

8<sup>th</sup> Grade/GSMST Counselor Signature: \_\_\_\_\_



**GSMST Standardized Test Scores**

<b>Test</b>	<b>Student Score (To Be Completed During Advisement Appointment)</b>	<b>Test Score Ranges of Students Who Have Demonstrated Success at GSMST</b>
<b>8<sup>th</sup> Grade ITBS – Math</b>		89th percentile and Higher
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