

THE
Gregory School

*A Tradition of
Inspiring Excellence*

**Middle School
Curriculum Guide
2017–2018**

2017 - 2018 Middle School Curriculum Outline

Fifth Grade

Optional - Zero Hour Block (Beginning Band, Intermediate Band, Chess)

Required -

1. English 5
2. Arts 5
3. Spanish 5
4. Mathematics (placed by the department)
5. Physical Education 5
6. Science 5
7. Introduction to Topics in History 5

Seventh Grade

Optional - Zero Hour Block (Beginning Band, Intermediate Band, Chess)

Required -

1. English 7
2. Fine Arts (student selects courses to fill both semesters):
Beginning Digital Design A (one-semester or year-long course)
Choir 1A/1B (students may take one or two semesters)
Dance 7 (one-semester course)
Drama 7 (one-semester course)
Middle School Beginning Guitar (one-semester or year-long course) *(Class is full)*
Middle School Yearbook *(Class is full)*
Visual Art 7 (one-semester course)
3. Languages (student selects one course per year):
French
Latin
Spanish
4. Additional Fine Arts *or* Language (student selects courses to fill both semesters)
5. Mathematics (placed by the department)
6. Physical Education
7. Life Science 7
8. Social Studies 7

Sixth Grade

Optional - Zero Hour Block (Beginning Band, Intermediate Band, Chess)

Required -

1. English 6
2. Middle School Skills
3. Fine Arts (student selects one course per year):
Beginning Guitar (year-long course)
Choir (year-long course)
Intro to Arts 6 (three-trimester course covering theater, visual, and music arts)
4. Languages (student selects one course per year):
French 1A
Latin 1A
Spanish 1A
5. Mathematics (placed by the department)
6. Physical Education
7. Earth Science 6
8. Ancient and Medieval History 6

Eighth Grade

Optional - Zero Hour Block (Beginning Band, Intermediate Band, Chess, Foundations of Leadership)

Required -

1. English 8
2. Fine Arts (student selects one course per year):
Beginning and Advanced Digital Design
Choir
Creative Writing
Dance 8
Digital Performance and Theater Production
Drama 8
Middle School Beginning Guitar *(Class is full)*
Middle School Yearbook *(Class is full)*
Visual Art
3. Languages (student selects one course per year):
French
Latin
Spanish
4. Additional Fine Arts *or* Language
5. Mathematics (placed by the department)
6. Physical Education 8 or Yoga
7. Physical Science 8
8. Civics 8

2017 - 2018 Middle School Course Offerings

ENGLISH

The primary goal of the entire English curriculum is cultivating independent and critical thinkers. Across the middle school, we explore analytical, critical, and synthetic thinking skills that grow in sophistication as texts and ideas increase in difficulty of subject matter and style.

English 5

Fifth grade students are introduced to a rich variety of texts, including realistic fiction, fantasy, poetry, and nonfiction. Students focus on comprehension strategies as well as determining plot structures, main idea, theme and comprehending figurative language. Students accurately quote text when drawing conclusions.

In fifth grade English students learn to refine and build upon previously learned knowledge and skills in increasingly complex, multiple-paragraph essays. Essays will contain a formal introduction, supporting evidence, and a conclusion or transitional phrase. Students will use graphic organizers to generate ideas and plan the intent of their topic. Types of writing for fifth grade include expository, narrative, and persuasive. Grammar instruction will include punctuation, capitalization, and parts of speech.

Fifth grade English uses various modes to challenge and extend students' oral communication. Throughout the year students give presentations on a variety of topics in every subject area. Students have opportunities to frequently practice reading aloud in class to increase oral fluency. Students also work on developing communication skills to collaborate effectively in a variety of projects.

Fifth graders will learn what it takes to become a 21st century learner. Students will learn to access information to inquire, think critically, and gain knowledge. They will practice evaluating information to draw conclusions, make informed decisions, apply knowledge to new situations, and create new knowledge. They will learn to apply and practice guidelines for Internet safety.

English 6

Sixth graders build confidence, fluency and volume in writing. Students begin the year writing free-verse poetry. In addition, sixth graders engage in a study of conventions and grammar as it relates to their own writing. The second semester transitions into perfecting paragraphs and working on memoirs and short essays. Sixth grade English culminates in a major cross-disciplinary research project that incorporates Ancient History and Skills class. English and Skills class collaborate to work on bibliographies and appropriate citation of others' work. By the end of sixth grade students should be able to correctly punctuate sentences with accuracy and confidence. Throughout the year students are invited and encouraged to read original poems and stories aloud in class. This builds confidence in public speaking and offers an opportunity for praise of their written and oral work.

Sixth grade English begins the year with a thorough study of free verse poetry focusing on analysis and literary structure. Students learn to use text evidence to support their response to literature. Students read a variety of genres including: realistic fiction, realistic fiction (written in verse), historical fiction and nonfiction. Sixth grade also offers students the opportunity to develop their oral communication skills for effective collaboration in a variety of projects: independent book groups, student lessons, and movie projects.

English 7

Seventh graders are introduced to a rich selection of classic and contemporary literary works, including works by Shakespeare, John Steinbeck, and Harper Lee, intended to challenge all students. Students use reading strategies to explore these works of literature, and they engage in class discussions of the perennial themes present in these works. Students are urged to make connections between works of literature, between literary works and the world around them, and between literature and their own lived experience. In this way, students construct meaning and synthesize information to create new understandings.

In seventh grade, students work on using textual evidence to support strong, original thesis statements about the literature we read and the world around us. Students learn how to blend and cite direct quotations from texts into their own writing correctly, develop their ideas in several body paragraphs rather than one or two, and edit for clarity and accuracy. Students write frequently in a variety of modes throughout the year with the goal of achieving increased fluency, voice, clarity, and evidence of learning and insight. Seventh grade students continue to work on demonstrating proficiency in grammar and mechanics.

Seventh grade English offers students a variety of formal and informal opportunities to develop their oral communication skills. Students are encouraged to engage in discussions often in class. In addition to exploring Shakespeare from a theatrical perspective, students memorize and recite poetry and other great works.

Seventh graders also continue to work on their digital citizenship skills and develop a stronger awareness of their digital footprint. They hone their research skills using print and web-based resources.

English 8

Eighth grade English revolves around great books discussions. In addition to reading and studying works by Sophocles, Cisneros, Shakespeare, Bradbury, and Orwell, students are encouraged to read a wide variety of American novels that deepen their understanding of the American experience, both contemporary and historical. These texts push students to acknowledge the unique perspectives of differing cultures and communities, and in class discussions, students are challenged to extend and refine their empathy and critical thinking skills to harmonize various literary voices and historical perspectives.

Eighth grade English pushes students to write longer essays and to explore alternative writing structures. Students work to master incorporating textual evidence in support of their ideas. By the end of eighth grade, students should be able to create outlines, essays, poems, and narratives using a variety of structures to facilitate clear and creative expression of their ideas and arguments. Grammar is taught in the context of good writing, and good writing starts with good sentences. Students focus on the skills necessary to facilitate clear and correct expression in their written work.

Eighth grade students are pushed to take leadership roles in class discussions. They prepare questions and presentations to bring to class and are encouraged to listen to their peers' ideas and build ideas together. Eighth graders use technology with greater sophistication as a resource for enhancing their presentation skills. They are challenged to use digital and print resources in a more complex way and develop a stronger set of criteria to evaluate their sources.

Middle School Creative Writing A/Creative Writing B

In Creative Writing, eighth grade students work on a variety of writing projects large and small in multiple genres, developing their writing process and creativity through sustained work on writing exercises, free writes, stories, poems, essays, and works of pure description. Students practice reading literature at the level of craft, analyzing the decisions writers make down to the word and sentence level, as well as in terms of their larger narrative and poetic strategies. Regular homework assignments and larger projects give students the opportunity to practice and hone their craft. Students share their work with each other in class and learn how to provide supportive, constructive feedback to one another. Creative Writing A begins with a focus on pure description, then moves into the writing of short stories and poems. Creative Writing B, building on the work of the first semester, offers more creative freedom to work on larger projects of special interest to individual students.

Middle School Skills

Middle School Skills introduces sixth grade students to the research, study, and technology skills that they will need as successful Gregory School students. Students will learn and practice basic study and organizational skills, such as using a planner and taking notes, while learning to use technology in the classroom efficiently and effectively. Students will also gain valuable research skills with practice searching, evaluating and referencing internet resources as well as the library's physical and electronic collections.

FINE ARTS

Note for all performance based courses: It is important that students publicly present their achievements. Therefore, attendance at all rehearsals and performances is mandatory except in case of serious medical or emergency situations.

Arts 5

This class provides a student the opportunity to explore the Fine Arts in trimesters. A trimester of Intro to Theater Arts is devoted to drama and dance giving the students experiences which build skills in public speaking, basic pantomime, creative movement, and playwriting. Class performances are often topic-oriented applying to themes from the curriculum. A trimester of Intro to Visual Arts gives students a solid introduction to art elements and principles. Students will be encouraged to develop their own visual voice as they work with two- and three-dimensional media with an emphasis on creative, critical, and self-regulated thinking skills. A trimester focuses on Intro to Musical Arts by encouraging students to recognize and

experiment with rhythm, melody, note reading, performance and creation of musical compositions. Students will develop the voice and body as instruments of musical expression.

Intro to Arts 6

This class provides a student the opportunity to explore the Fine Arts in trimesters. A trimester of Intro to Theater Arts is devoted to drama and dance giving the students experiences which build performance skills in public speaking, basic pantomime, puppetry, and creative movement. Class performances are often topic-oriented applying to themes from the history, Latin, and English curriculum. A trimester of Intro to Visual Arts gives students a solid introduction to art elements and principles. Students will be encouraged to develop their own visual voice as they work with two- and three-dimensional media with an emphasis on creative, critical, and self-regulated thinking skills. A trimester focuses on Intro to Musical Arts by encouraging students to recognize and experiment with rhythm, melody, note reading, performance and creation of musical compositions. Students will develop the voice and body as instruments of musical expression.

Dance 7

This class is designed to introduce students to the fundamentals of movement and basic dance technique. We begin with fun dance improvisation, move to modern hip-hop, and finish with a group dance that combines student and teacher choreography into one large ensemble dance performance. There will be an overview of several different dance styles including ballet, modern, jazz and hip-hop. Students will choreograph their own dances in this class. Students will participate in a final showing at the end of the semester, performing the dances created in class.

Drama 7

This class is designed to introduce students to the basic concepts and skills of acting. Emphasis will be placed on improvement of performance skills that involve the voice, body, and the mind. Students will perform daily activities, partner, group, and solo pieces, performances, as well as participate in a class play. There will be scripted work, improvisation, and creative writing completed throughout the semester.

Visual Art 7

The seventh grade visual art class is a sequential extension of the sixth grade foundation course. Students will continue to work with both two- and three-dimensional media with ever growing complexity. Students will continue to strengthen their creative thinking skills needed to produce meaningful artwork as well as the critical thinking skills needed for the appreciation of their own work and the work of others.

Dance

This fine arts elective class for eighth graders will focus on ballet and jazz. Class time is split evenly between the two dance styles. Students will participate in classical style ballet barre, center, and across-the-floor work; and traditional jazz warm-up, center, and across-the-floor work. Both ballet and jazz practice involves development of correct technique, learning choreography for the dance performance, and refining our creations for the show at the end of each semester. Some after-school and weekend commitments are required.

Digital Performance and Theater Production 8

The overall objective of this creative design class is to create original work using digital and concrete tools. Students will record, edit, design, and mix music for performances using GarageBand. They will create slideshows and digital stories using iMovie. Students will learn basic tool usage, safety considerations, and building techniques for theatrical production. Second semester this class will be responsible for designing audio and video elements, stage managing, house managing, running lights and sound, and performing backstage crew responsibilities for the middle school production.

Drama 8

Students will have the opportunity to explore many diverse types of theater in eighth grade drama. Improvisation games, public speaking, black-light theater, mime, mask performance, and different types of puppetry will fill the first semester. Second semester we will apply the skills learned first semester to a full-length evening ensemble production. Past productions have included *The Wizard of Oz*, *Aladdin*, *Peter Pan*, *Sideways Stories from the Wayside School*, *Pinocchio*, and *James and the Giant Peach*.

Visual Art 8

The eighth grade visual art students will have greater opportunities to create a more diverse and detailed portfolio. Each student will be continually challenged to find unique solutions to visual communication and design problems. Students will have a more in depth understanding of the relationships between the art elements and principles as they express their strong visual voice.

Middle School Yearbook (Class is full)

Prerequisite - Teacher recommendation and a camera are required.

Yearbook is designed to introduce seventh and eighth grade students to electronic and print media. Students create the middle school yearbook using digital cameras and Jostens Year-tech online software. Students create book layouts, cover events and sports at school, and finish page work according to company printing deadlines. Students are expected to participate in photo coverage of after school events and sports as part of their required coursework. Students must have a digital camera for the course.

Beginning Digital Design A, B

In one semester, students will create digital images using basic photoshopping techniques by building and painting directly on the computer. They will develop design knowledge through balance, emphasis, texture, color theory and mixing. Students will gain an understanding of various digital formats for both print and web use and study various historical art movements related to their projects. This course is open to grades 7 - 12.

Beginning Digital Design

Students will create digital images using basic photoshopping techniques by building and painting directly on the computer. They will develop design knowledge through balance, emphasis, texture, color theory and mixing. Students will gain an understanding of various digital formats for both print and web use and study various historical art movements related to their projects. This course is open to grades 7 - 12.

Advanced Digital Design

Prerequisite: Beginning Digital Design or approval from instructor based on portfolio

This course will expand on the basics of photoshopping, digital painting, and vector graphics to communicate visually through a digital format. Projects will challenge the student to explore the digital format as a means of both personal expression and commercial purpose. Students will continue to develop their creativity, knowledge of design and color to build their projects. This course is open to grades 8 - 12.

Choir 1A/Choir 1B

Choir 1 is for younger singers with unchanged voices and/or those at a beginning level. No previous musical experience is required. Emphasis is placed on good vocal production, reading music, diction (both in English and other languages) and performance of one or two part music. Eighth grade students will be placed in Choir 1 or 2 based upon musical skills and/or experience. This course is open to grades 5 - 8. Choir 1A and 1B are individual one-semester courses; students may take one or both.

Choir 2

Eighth grade and upper school students in Choir 2 have previous choral experience and can read music at a rudimentary level. Emphasis is on the performance of high-quality music, training in the skills of choral singing, solo singing, music theory and literacy, and ear and sight-reading skills. The course is performance-based; participation in both on-campus and off-campus performances is required and included in the grading rubric. Music ranges from sacred to secular, from Renaissance to Broadway, including pieces sung in languages other than English. Students are encouraged to audition for the Arizona Regional Choral Festival, and the choir will most likely participate in at least one other choral festival. Eighth grade students will be placed in Choir 1 or 2 based upon musical skills and/or experience.

Beginning Band

Beginning Band is designed for students in grades five through eight to discover and learn how to play a standard wind or percussion instrument of their choice. Students do not need to know which instrument they want to play before enrolling in the class, however once an instrument decision is made in most cases the student will need to provide their own. The students will learn how to read and play music together in an ensemble setting. Fun games, songs, and activities make this course a great way to learn to play music with your friends. Students will want and need to bring their instruments home regularly, since personal at-home practice outside of class meetings is expected. This course is performance-based and school concerts and other performances are included in the grading rubric. No previous experience is required. This class meets Monday-Thursday, 8:00 - 8:45 a.m.

Intermediate Band

Prerequisite: Beginning Band or permission of the instructor as determined through a short audition process. Intermediate Band is designed for middle and upper school students to play standard wind or percussion instruments in an ensemble setting. Students must have played their instruments for at least one year, and should be able to read music at a rudimentary level. In most cases students must provide their own instruments. Private lessons outside of school with an instructor specializing in the student's instrument are strongly encouraged. Students will have several required performances throughout the school year, and students will want (and need) to bring their instruments home regularly, since personal at-home practice

outside of class meetings is expected. This course is performance-based and school concerts and other performances are included in the grading rubric. This class meets twice per week during zero hour.

Middle School Beginning Guitar (Class is full)

Open to students in grades 5 - 8, this course is intended as an introduction to the acoustic classical guitar, with an emphasis on the basic techniques required to play simple tunes and strum common chords. The course will also introduce common music notation and standard music theory, including rhythm concepts, music reading, tuning and performance of simple tunes and songs. Live solo and group performances are a part of the class expectation and grading rubric. No previous musical experience is required, and instruments for the class will be provided.

LANGUAGES

French 1A

This is an introduction to French for sixth and seventh graders. Emphasis is on reading, writing, listening and speaking. Students learn to converse and write about everyday things, such as weather, family, school, entertainment, likes and dislikes, and clothing. Class is spent practicing vocabulary and grammatical structure, reading short passages and talking about culture. We will use the present tense. We will learn about various aspects of Francophone culture.

French 1B

This course is designed so that each student will be actively involved in learning the French language. In the B level, we will use the first quarter of the year to review the previous year's work in French 1A. Students will continue to learn familiar and concrete vocabulary along with phrases that are useful in everyday life or that they would use if they were to travel to a French speaking country. We will continue to learn about Francophone culture and French-speaking countries.

French 1 (Upper School Class)

Prerequisite - Eighth grade students who earned a B+ or higher in a previous language course are eligible to take French 1 in the upper school.

This course assumes little or no prior instruction in French. In class, we emphasize conversational skills while written work is done at home. Students learn familiar, concrete vocabulary and phrases geared toward everyday life in a French-speaking country. Various aspects of Francophone culture are introduced, with concentration on France, Senegal, and Québec. We use primarily the present tense, but also learn to converse in the past tense.

Latin 1A and 1B

The Latin program offers a comprehensive foundation in the language from the introduction of basic vocabulary and grammar through the study of grammatical syntax and literature. Our course is based on the universal stories of Ovid. Reading comprehension, translation, and Latin prose composition are emphasized in the course. Readings from ancient authors and modern retellings focus on classical culture, history, and mythology. We also study deeply words and ancient custom. To complement the epic stories that we read, the Iliad, the Odyssey, and the Aeneid, we tell stories through oral rhetoric, mosaic tesserae, anthropomorphic toys, painting murals, and racing chariots!

Spanish 5

This course is designed so that a fifth grade student will be actively involved in learning Spanish. At the completion of this course students will be able to perform the following tasks at a novice level: introducing themselves and others, describing someone, asking someone's age and birthday, giving the time, the date, and the day, expressing likes and dislikes, talking about pastimes and sports, saying what they have and what they need. We will emphasize pronunciation and vocabulary. Also, we will study the culture of Spanish-speaking countries.

Spanish 1A

This course is designed so that a student will be actively involved in the learning language. At the completion of this course students will be able to perform the following tasks at a novice level: Listening and speaking within enjoyable, engaging and interactive activities, reading of simple Spanish texts, writing to demonstrate basic knowledge and culture of the Spanish-speaking world. Students will learn: To introduce themselves, to introduce others, to describe someone, to ask someone's age and birthday, to give the time, the date, and the day, to express likes and dislikes, to talk about pastimes and sports, to say what they have and what they need, to describe people and family relationships, to talk about classes and responsibilities, to talk about

plans, and to invite others to do something. We will emphasize pronunciation and vocabulary. Also, we will study the geography and culture of Latin-speaking countries.

Spanish 1B

This course is designed so that a student will be actively involved in the learning language. In the B level, we will use the first quarter of the year to review last year's work. With an effective review effort, we should come cover most of the content in the textbook by the end of the year. Students will learn: To ask for personal information and to respond, to comment on food, to make polite requests, to talk about daily routine, to give directions, to talk about how they feel, to give advice, to ask for and to give opinions, to say what they did and where they go, and to express hopes and wishes. Also, we will study the geography and culture of Latin-speaking countries.

Advanced Middle School Spanish

The course is designed for students who are native speakers of Spanish or who have spent at least five years in an immersion program and have reached a high level of proficiency in Spanish. It is meant to help them develop their skills until they are old enough to test into an upper school Spanish class. The course will be for academic credit.

Spanish 1 (Upper School Class)

Prerequisite - Eighth graders with no prior experience with Spanish or who earned less than a B- in Spanish 1B are eligible to take Spanish 1 in the upper school.

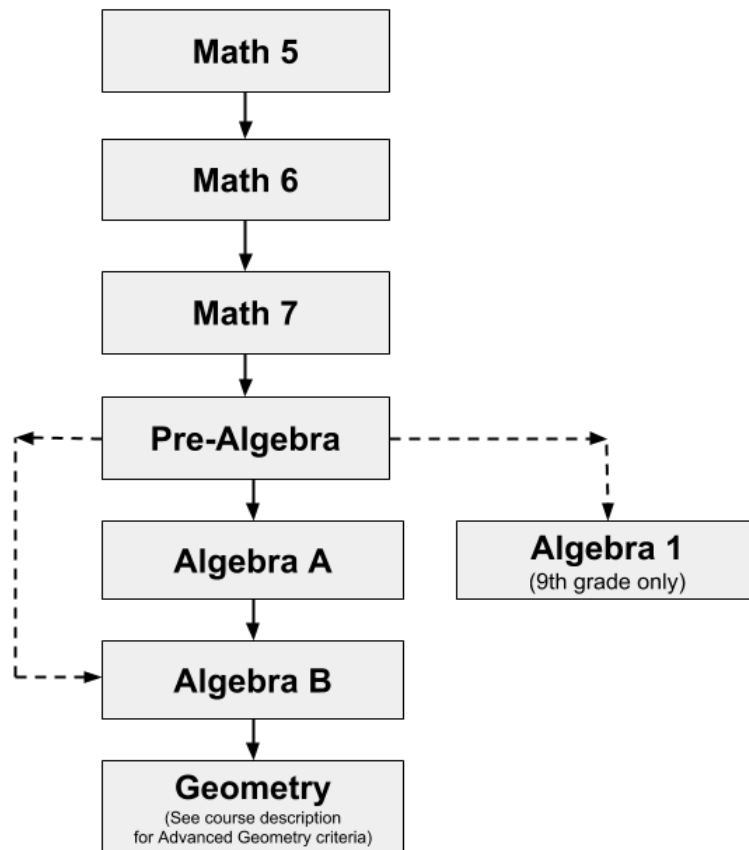
Spanish 1 is an introductory course primarily in Spanish, which assumes no prior knowledge of the language. Emphasis is on developing the student's ability to use the language for basic communicative competence by developing the four skills: listening, speaking, reading and writing. Culture is introduced through the videos and readings. The emphasis in the classroom is the use of oral Spanish. By the completion of the first year students are able to introduce one friend to another, describe likes and dislikes, shop for food and clothing, order a meal in a restaurant, talk about daily routines, weekend activities, classes, family, health, and holidays. Students are able to speak, read, and write in the present, past, and future.

Spanish 2 (Upper School Class)

Prerequisite - Eighth graders who earned a B- or higher in Spanish 1B (or equivalent) are eligible to take Spanish 2 in the upper school.

Spanish 2 continues the four-skill approach begun in Spanish 1 through the continued use of the direct method and develops the student's ability to begin to express abstract concepts such as desires, doubts, and possibilities, through the use of the subjunctive mood. Emphasis is also on commands, the contrast of the two past tenses (the preterit and the imperfect), and the future tense. Cultural content is enhanced through the use of video material and short readings. Students at this stage are writing short compositions in Spanish on a variety of cultural and personal topics.

MATHEMATICS



Math 5

Mathematics curriculum for fifth grade focuses on developing a solid mathematical foundation for students. Fifth grade builds upon prior student knowledge, extending multiplication and division to multi-digit numbers and developing understanding of decimals in the place value system and in operations. Adding, subtracting, multiplying, and dividing fractions is covered in depth. Student knowledge of geometry is extended to develop an understanding of volume concepts. Problem solving with real-world scenarios is woven throughout the curriculum. Students will be immersed in the following mathematical practices: making sense of problems, persevering in problem solving, modeling with mathematics, reasoning abstractly and quantitatively, constructing viable arguments, critiquing the reasoning of others, using appropriate tools strategically, looking for and making use of structure, and attending to precision.

Math 6

Prerequisite: Grade level 6 student or at least 80% on Grade level 5 exit exam (if grade level 5 student). The purpose of Math 6 is to solidify numeracy skills learned in elementary school. We introduce new computational, reasoning, and problem-solving skills needed for the continued study of higher mathematics. Students encounter a wide selection of topics and use their newly acquired skills to solve a variety of application problems. Providing a thorough preparation for Pre-Algebra, this course focuses on: place value; adding, subtracting, multiplying, and dividing whole numbers, fractions, decimals; graphing; number theory, measurement, geometry, perimeter, area, volume, integers and problem solving.

Math 7

Prerequisite: Grade level 7 student or at least 80% on grade level 6 exit exam (if grade level 5 or 6 student). The seventh grade math program is based on the textbook Holt McDougal Mathematics Grade 7 (copyright 2012). The course begins with a review of operations and properties of numbers, and then moves on to a

study of variables and algebraic expressions. Students then explore integers (addition, subtraction, multiplication and division) and rational numbers, including operations and applications with both decimals and fractions. During the second semester, topics include proportional relationships, such as ratios, rates and proportions in simple geometric figures, graphing on the coordinate plane, and the relationship between fractions, decimals and percents. The year concludes with a study of data collection, organization and analysis, and a survey of basic plane geometry, including points, lines, angles, congruence and constructions.

Pre-Algebra

Prerequisite: Grade level 8 student or at least 80% on Grade level 7 exit exam (if grade level 6 or 7 student). The Pre-Algebra course is designed to prepare students to be successful in mathematical problem solving while learning to think algebraically. It is the bridge course between Math 7 and Algebra. Pre-Algebra reinforces and extends concepts learned in arithmetic while emphasizing patterns, functions, and algebraic thinking. Topics of study include: Percent Applications, The Real Number System, The Law of Exponents and Scientific Notation, Introduction to Functions and Linear Modeling, The Theory of Equations, Transformational Geometry, Roots, Radicals and Pythagorean Applications, Volume, Surface Area, Probability and Statistics with Data Analysis.

Mathematical Practices are emphasized throughout the course. Process standards include problem-solving, reasoning and proof, communication, representation and connections. Additionally, mathematical fluency of expression is modeled by teaching adaptive reasoning, strategic competence, command of linguistic expression using mathematical symbols and models.

Algebra A

Prerequisite: For continuing students at TGS, successful completion of Pre-Algebra. If new to TGS, at least 80% on the Pre-Algebra Final Exam.

The Algebra A course is the first semester of the upper school Algebra course taught over the entire academic school year. The course is designed to accommodate students who have been successful in Pre-Algebra and are ready to transition to a significantly more abstract course, but without the pressure of the accelerated pace the student would experience in the full year upper school Algebra course. The course begins with an intensive review of Pre-algebra topics with an emphasis on the abstraction and application of topics in: Number systems, Percent, Theory of Equations and Algebraic Application of Geometric Principles. The focus of the course is on: Modeling and Solving Equations, Solving and Modeling Linear Systems of Equations and Inequalities and the Introduction of Polynomials.

Mathematical Practices are emphasized throughout the course. Process standards include problem-solving, reasoning and proof, communication, representation and connections. Additionally, mathematical fluency of expression is modeled by teaching adaptive reasoning, strategic competence, command of linguistic expression using mathematical symbols and models.

Algebra B

Prerequisite: For continuing students at TGS, successful completion of Algebra A and teacher recommendation. If new to TGS, at least 80% on the Algebra A Final Exam.

The Algebra B course is the second half of the upper school Algebra course taught over the entire academic school year. The course is designed to accommodate students who have been successful in Algebra A and are ready to transition to a significantly more abstract course. The course focuses on non-linear forms: Factoring, Quadratic and Cubic Functions, Rational Functions, Radical Functions including the Transformation of the Graphs (of said functions) with respect to their parent graphs. Problem Solving and Applications of each topic is an integral part of the course.

Mathematical Practices are emphasized throughout the course. Process standards include problem-solving, reasoning and proof, communication, representation and connections. Additionally, mathematical fluency of expression is modeled by teaching adaptive reasoning, strategic competence, command of linguistic expression using mathematical symbols and models.

Advanced Geometry

****Prerequisite:** B (85% or better) in both semesters of Algebra (B or US) and teacher recommendation. If new to TGS, at least 80% on the upper school Algebra Final Exam.

Advanced Geometry is a full year course taught over the two semesters of the academic school year. This is an accelerated course that will emphasize deductive and inductive reasoning to develop the notion of geometric proof. Students will engage in a variety of activities that extend their learning and allow them to explore geometric concepts in depth and with rigor via in-class experiments and projects. The course begins with exploring relationships and patterns in geometric shapes in the world around us. Students will then explore topics in: constructions using traditional tools as well as geometry software, numerical and spatial

invariants, reasoning and proof, congruence, similarity, measurement, polygons and circles on the coordinate plane as well as three-dimensional figures, and right-triangle trigonometry. This course will include an applied Statistical Unit to prepare students for the “new SAT.”

PERSONAL DEVELOPMENT

Chess

This class is geared for the more serious chess student who is interested in improving their chess skills and playing in tournaments. Students are asked to commit to the entire semester. Goals/Topics: Combinative Tactics, Visualization, Chess Geometry, Winning Strategies, Time/Stress Management, Attacking and Defending. Also will include speed chess, bughouse (team chess), blindfold chess, and lots of fun.

Intro to Leadership and Innovation in Society

In this first semester course, eighth grade and upper school students will explore the concept of leadership within an historical context as they research and analyze the careers of individuals who are well-known leaders and agents of change in society. Within the context of these studies, students will be introduced to and given opportunities to develop individual leadership skills.

The three phases of the course content are:

1. An introduction to the types of leadership through research-based studies of famous leaders, past and present
2. Exploration of personal leadership philosophies and values
3. Development and extension of basic individual and team-based leadership skills and knowledge of leadership concepts

Advanced Leadership

The underlying objectives of the second semester course are to empower eighth and upper school students with the confidence and abilities to engage in leadership opportunities beyond and outside of their Gregory School experience, and to support their individual development into engaged citizens who are capable of leading and becoming innovative agents of change. The Advanced Leadership course at the Gregory School is a comprehensive leadership development program that involves three sequential phases:

1. An inventory of existing leadership skills and personal leadership philosophies and values
2. Development of advanced individual and team-based leadership skills and knowledge of leadership concepts
3. A case study approach to understanding various leadership styles including Servant Leadership, Spiritual Leadership, Transformational Leadership, Charismatic Leadership, and Authoritative Leadership

Physical Education

The goal of this class is to promote lifetime physical fitness through individual and team sport activities. The students will show steady personal improvement in all activities throughout the year. Everyday all students must keep trying to get better in all aspects of Physical Education. In each class we shall discuss health topics, work aerobically and anaerobically, practice proper stretching and strengthening techniques, train skills in various individual and team sports, and play. Cooperative behavior and good sportsmanship are reinforced each class meeting. With the right mix of effort and attitude displayed in each meeting, we shall have great fun.

Yoga

This year-long class will help eighth grade and upper school students to learn, explore, and enjoy an ancient practice backed by modern science with benefits beyond compare. Yoga instruction will offer personalized direction on proper alignment, technique, exertion, and modifications. This class will be a gathering place for those who seek to care for themselves in a welcoming, safe, comfortable, and supportive environment at all levels.

Interscholastic Athletics

Fall	Girls' volleyball Boys' or girls' tennis Flag football Golf	Winter	Boys' and girls' soccer	Spring	Boys' and girls' basketball Boys' and girls' track
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SCIENCE

Science 5

Fifth grade science focuses on scientific inquiry and innovation. Students will use systems' thinking, technology and tools, critical and creative thinking, and teamwork throughout the year, and these concepts will be integrated into various units of study. Applications of scientific thinking will enable our students to strengthen skills that successful people need and use every day: solving problems creatively, making decisions, working cooperatively in teams, using technology effectively, and valuing lifelong learning. Students will be actively connected to the scientific community in Tucson via classroom visits and field trips. Units of study in fifth grade science include the interaction of science and society, biology of the human body and the systems it contains, structure and processes of the Earth and objects in space, simple machines, and effects of forces (gravity and friction). Students also work with computer programming, engineering, and design thinking.

Earth Science 6

The sixth grade Earth Science curriculum encompasses a broad array of specific science disciplines including: plate tectonics, meteorology, earth's waters, and environmental science. Through the application of laboratory skills, Earth Science introduces students to features and processes that make the Earth unique while simultaneously introducing them to the scientific process. Sixth grade students will learn the basic concepts of the scientific method, lab safety, metric measurement, and proper use of lab equipment. By continuously "doing science," students will develop their inquisitive and investigative skills, and foster a sense of wonder about the workings of our world. Hands-on activities, lectures, reading, computers, art and discussion will be used to explore and come to an understanding about the important concepts of each topic.

Collaboration on projects and experiments is expected, and students are held accountable for working as a team and making an equal contribution to class discussions as well as individual projects. Students are expected to analyze data and prepare presentations to effectively communicate and justify their conclusions. Quality performance is stressed, focusing on improvement over time.

Life Science 7

Seventh grade Life Science is the study of LIFE, from the simplest one-celled organism through the plant and animal kingdoms. The year begins with a general overview of the scientific method, then focuses on its application to the biological sciences. Science skills and concepts are learned through a combination of hands-on exploration and experimentation, project based-based learning, focused readings, internet-based searches, short lectures, and class discussions. Homework includes readings from various print and online sources, lab write-ups, web-based topic exploration and vocabulary building exercises. Each unit culminates in either a test or project. Collaboration on experiments and projects is often expected, and students are held accountable for working as an investigative team. Everyone is expected to make constructive contributions to their lab, project or research group.

Physical Science 8

Eighth grade Physical Science encompasses the study of matter, forces, and energy. We will explore these topics using a variety of learning strategies including: lab activities and investigations, demonstrations, readings, research, presentations, and projects. How physical science concepts can be applied to interpret and explain how things work, including man-made creations and natural phenomena observed on Earth, will be emphasized throughout the year. We will also focus on understanding scientific methods and refining skills related to organizing, interpreting, and presenting information gathered during investigations and research. Through our studies, we seek a deeper understanding and healthy appreciation of our amazing planet and universe.

SOCIAL SCIENCES

Introduction to Topics in History 5

In fifth grade history, students will explore topics from American and World history through the lens of a true historian. They will analyze primary and secondary sources to understand events, research using a variety of sources, and clearly and concisely write about their findings. Students will grapple with large questions in history like: What is freedom? What are essential rights that all humans should have? Finally, they will connect the past and present through discussions of current events.

Ancient and Medieval World 6

The sixth grade Ancient History class is a year-long course that explores the time period from the Paleolithic Age to Medieval Europe on three continents. The year begins with an introduction to geography and the interaction between humans and the environment. Students will learn how to analyze history in terms of geography, religion, social structure, government, culture, and economy. In addition, students will learn how

to connect the past and present by studying current events and reading selections from nonfiction and historical fiction. The year culminates in a self-designed, interdisciplinary project focused on water's impact in the ancient, medieval and modern world.

Social Studies 7

The seventh grade Social Studies course will guide students in the study of events, leaders, ideas and geography in economic and political systems and cultures throughout the history of the United States and its interconnectedness on a global scale. Woven throughout the content of the class will be all the aspects of a well-rounded Social Studies program: history, economics, government, geography and civics.

The course will begin with a comprehensive Geography unit that will continue throughout the year as daily bell work: Country of the Day. With the completion this bell work unit, all seventh grade Social Studies and eighth grade Civics students at the Gregory School will have been briefly exposed to every country in the world!

We begin our historical studies with a review of Pre-Columbian America, Colonial America, The Revolutionary War, The Constitution, The Jeffersonian and Jacksonian Eras and the events leading up to The Civil War. Our first comprehensive unit will be The Civil War and Reconstruction. We will then study the Industrial Revolution and Immigration, IIE (Isolationism, Imperialism and Expansionism), The Progressive Presidents, WWI, Women's Suffrage, The Great Depression, WWII/Holocaust, and finish with a look at the events that shaped the Contemporary Decades (50's to today).

Basic geography skills, cooperative learning activities, current events, and research projects are used to enhance student learning. Multidisciplinary lessons across the content areas are integrated throughout the curriculum. Students will use primary and secondary sources to obtain, analyze and question accurate and relevant historical information to better understand how and why events have happened or may happen again. We want students to learn to think like historians!

Upon completion of this course, students will have created a foundation for understanding how historical events and personalities influence and effect the present and the future both nationally and internationally and make connections between these major ideas and their own lives in our global community.

Civics 8

Civics is a multi-faceted, exciting and thought provoking course. Civics is the study of the rights, responsibilities and duties of a citizen. Because the United States is a democracy, the job of a citizen is extremely important! To be an invested and informed citizen you have to know how the country and your government functions and what your specific rights are.

Eighth grade students will be studying all aspects of Civics and Government. The class begins with a brief unit on Geography (there will also be an ongoing daily bell-work assignment that ties into geography - "Country of the Day") and Colonial America (including The American Revolution and The Declaration of Independence). Woven throughout the year, will be the study of The Constitution. Students will analyze the entire document looking at its structure, intent and what it specifically does to create and monitor our government. Students will learn about all three branches of government including terms, limits, powers and responsibilities. We will read through all of the Amendments, focusing on the Bill of Rights and what they mean to Americans, and how they protect our individual rights. Students will examine the most influential and pivotal Supreme Court cases. They will learn exactly what your responsibilities as a citizen are, how you can exercise your rights, and how you can positively and negatively impact and change your country as an active and informed citizen!

This class will require active participation, experiential learning, understanding various points of view, critical thinking, the ability to be creative, and being able to transfer acquired knowledge into different applications. Students will gain a better understanding of how our government works, how it directly affects them, and what it means to them in the future: locally, nationally and globally!