

Middle School Scope & Sequence

Grade 6 Grade 7 Grade 8 ALGEBRA 1B: **PRE-ALGEBRA** ALGEBRA 1A In MYP Year 3, students In MYP Year 1, students become In MYP Year 2. familiar with representing realistic and students extend their explore nonlinear abstract scenarios with numbers fluency with relationships, namely ranging from integers to fractions and manipulating rational quadratics. This includes ratios. They will practice representing numbers, including representing and and analyzing situations verbally multi-step equations, analyzing verbally, Math-(writing), visually, and abstractly, i.e. manipulating formulas, visually, and abstractly. with equations. Basic geometry ematics and analyzing **Exponential functions** applications including perimeter and increasingly complex are also covered. area for the most basic figures will be real-life scenarios requiring mathematical included. approaches to Skills and Knowledge: percentages and Skills and Knowledge: monomial vs averages. They will binomial vs explore the basic polynomial • basic properties counting principle, polynomial addition, absolute value/ordering integers • permutations, and subtraction, and integers and integer operations • combinations. They multiplication • coordinate plane- labeling, will learn the • standard form of plotting points, graphing Pythagorean Theorem quadratic equations ratios and rates versus fractions . and applications. solving by factoring rational numbers and rational • solving by number operations **Skills and Knowledge:** completing the factoring • algebraic properties square • fractions/decimals/percents multi-step solving by quadratic • statistics- bar graphs, scatter plots, equations including formula box plots, mean, median, mode, fluency with solving by graphing • misleading statistics distributive exponential equations up to two-step • property functions- when do equations, ideally including more detail and they apply, solving, fractions applications with graphing • perimeter and area of rectangles, rational numberscontinue with triangles, trapezoids, equations, percent frequency tables and parallelograms, circles of change, weighted analysis basics of angles • averages formulas and • formula

manipulation relations vs

functions vs linear
functions
representing linear
relationships
verbally, visually,
abstractly
• graphing linear
equations/writing
equations from
graphs: standard
form, slope-
intercept form,
slope, y-intercept,
x-intercept, reading
graphs/making
predictions
linear inequalities:
solving, graphing
• systems of linear
equations, including
solving with
graphing,
substitution, and
combinations
• systems of linear
inequalities
 rational exponents
 rational vs.
irrational numbers
 frequency tables
and analysis

GPS Middle School Scope & Sequence

	Grade 6	Grade 7	Grade 8
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	ARTISTIC PERCEPTION	ARTISTIC PERCEPTION	ARTISTIC PERCEPTION
Music	Students will learn to process, analyze and respond to sensory information through the language and skills unique to music. Students will read, notate, listen to, analyze, and describe music and other aural information, using music terminology.	Students will learn to process, analyze and respond to sensory information through the language and skills unique to music. Students will read, notate, listen to, analyze, and describe music and other aural information, using music terminology.	Students will learn to process, analyze and respond to sensory information through the language and skills unique to music. Students will read, notate, listen to, analyze, and describe music and other aural information, using music terminology.
	Skills & Knowledge	Skills & Knowledge	Skills & Knowledge
	 Read, write, and perform intervals and triads. Read, write, and perform rhythmic and melodic notation. Transcribe simple aural examples into rhythmic notation. Sight-read simple melodies in the treble clef (level of difficulty: 1 on a scale of 1-6). Students will learn to create, perform, and participate in music. Learn to sing in two part harmony. Students will learn the historical contributions and cultural dimensions of music, which could range from the Classical time period up through the origins of Jazz and Rock n' Roll. Students will learn to make judgments about works of music using 	 Read, write, and perform intervals, chordal patterns, and harmonic progressions. Read, write, and perform rhythmic and melodic notation. Transcribe simple aural examples into melodic notation. Sight-read melodies in the treble and bass clef (level of difficulty: 2 on a scale of 1-6). Students will learn to create, perform, and participate in music. Learn to sing in 3 part harmony Students apply vocal and instrumental musical skills in performing a varied repertoire of music. Compose short pieces. Compose and arrange simple pieces for voice and instruments, using digital/ electronic media. Improvise melodies and harmonic accompaniments. 	 Read, write, and perform augmented and diminished intervals, minor chords, and harmonic minor progressions. Read, write, and perform rhythmic and melodic notation in duple, triple, compound, and mixed meters. Transcribe aural examples into rhythmic and melodic notation. Sight-read accurately and expressively (level of difficulty: 3 on a scale of 1-6). Apply vocal and instrumental musical skills in performing a varied repertoire of music. Compose and arrange music and improvise melodies, variations, and accompaniments, using digital/electronic technology when appropriate. Compose short pieces in

 musical terms. Students will begin to apply what they learn in music across subject areas. Develop competencies and creative skills in problem solving, communication, and management of time and resources that contribute to lifelong learning and career skills. Learn about careers in and related to music. 	 Students will learn the historical contributions and cultural dimensions of music, which could range from the Classical time period up through the origins of Jazz and Rock n' Roll. Students will learn to make judgments about works of music using musical terms. 	 duple, triple, mixed, and compound meters. Arrange simple pieces for voices or instruments other than those for which the pieces were written, using traditional and nontraditional sound sources, including digital/ electronic media. Improvise melodic and rhythmic embellishments and variations in major keys. Improvise short melodies to be performed with and without accompaniment. Compare and contrast the functions music serves and the place of musicians in society in various cultures. Identify and explain the influences of various cultures on music in early United States history. Explain how music has reflected social functions and changing ideas and values. Compare and contrast the distinguishing characteristics of musical genres and styles from a variety of cultures. Perform music from diverse genres, cultures, and time periods. Classify exemplary musical works by style, genre, and historical period and explain why each work is considered exemplary.

	Grade 6	Grade 7	Grade 8
Science	In MYP 1 Science, the students are first introduced to the scientific method and the materials used in the lab. They spend time learning how to use each piece of equipment, how to conduct a good experiment and how to effectively report their findings. They then study a range of topics across the curriculum in physical, earth, and biological science applying the skills they have learned.	The topic for year 2 is biological science. Students learn about the smallest thing that can be called alive – the cell. They learn it's parts, how it grows, reproduces, and transfers code from one to another to create identical cells. They learn about dominant and recessive traits and explore how traits are passed from	Year 3 is split into two parts. During the first half of the year, students study the human body. They take an in depth look at each of the body systems and explore how they work together to allow the body to remain healthy and function. They also explore what happens when something goes wrong – the impact of disease on the body. During the second half of the year they
	 Skills Design a lab to answer a scientific question Conduct a well thought out experiment Write a formal lab report Make a model of an atom Extrapolate important information from an article on a topic Create a media presentation on a topic Present information to the class orally Apply knowledge to suggest 	parent to offspring. They explore the structure of bacteria, viruses, and single celled organisms that make up the Protist kingdom. During the second half of the year students discover the need for classification, and develop rules for classifying their classmates before examining the various phyla of the animal kingdom to learn the traits of each and why seemingly unrelated organisms are	explore topics in physical science including motion, forces, and energy. Through a series of experiments, they develop a better understanding of motion, forces, Newton's Laws, and the benefit of using simple machines to do work. At the end of the year, they use their knowledge to build a mouse trap containing simple machines, forces, and energy conversions to capture a pretend mouse.
	solutions to a real world problemClassificationUsing a dichotomous key	often grouped together. Skills Design a lab to answer 	 Skills Develop a scientific question and design a lab to answer it. Conduct a well thought out
	 Knowledge Names of pieces of lab equipment and their uses Steps of the scientific method States of matter Structure of atoms and molecules Compounds and mixtures What the symbols in a 	 a scientific question Conduct a well thought out experiment Write a formal lab report Make a model of a cell, DNA Extrapolate important information from an article on a topic 	 experiment Write a detailed formal lab report including interpreting data, analyzing, and summarizing findings Extrapolate important information from an article on a topic Create a multi media presentation on a topic

 The various types of pollution and their causes The impacts of pollution on our lives Natural Resources renewable/nonrenewable What can be recycled and what can't Consequences of improper resource management Geologic history of the earth/tracking changes over time 	 presentation on a topic Present information to the class orally Apply knowledge to suggest solutions to a real world problem Dissect an organism Classification Use of a microscope Using a dichotomous key 	 Application of knowledge to suggest solutions to a real world problems Dissect a specimen Use of a microscope Use of mathematical formulas Data analysis and graphing Assessing validity of findings
time Types of plants and animals that existed and when Types of fossils How to determine age Plate tectonics Natural forces that shape our earth and the impact	 Knowledge Proper use of lab equipment Steps of the scientific method Parts of a cell Structure of plant and animal cells Structure of DNA Mitosis and meiosis Genetics and the Punnett Squares Differences between bacteria and viruses Types of protists, structure, characteristics, and uses One celled organisms Systems for classifying living things What constitutes an animal Characteristics of each phylum and developmental trends 	 Knowledge Proper use of lab equipment Steps of the scientific method Parts and function of each body system Interconnectedness of body systems Impact of disease on the body Requirements to maintain healthy body function Terminology of motion – relative motion, distance and displacement, speed, velocity, momentum, inertia, acceleration, and the formulas to calculate each. Newton's laws and the ability to use them to explain reactions Types of friction – Static, sliding, rolling Circular motion, velocity, gravity, and terminal velocity Work and power and how to calculate each The 6 types of simple machines, when and how they're used, and their impact on work being done. Pascal's, Archimedes, and Bernoulli's Principals and their applications to explain real world events.

	Grade 6	Grade 7	Grade 8
Spanish	During this year, students will learn the language through five different learning units. The vocabulary is organized by topics or situations related to the theme of the unit. The vocabulary is reinforced and used in different contexts. The grammar of language is directly related to the communicative function. Each unit has a grammatical comparison between the Spanish language and the English language. Cultural maps not only give a different perspective of the countries studied but also provide readings related to the culture of that country. Objectives • To spell and pronounce Spanish Words • To greet and make introductions • To say goodbye and to use certain courtesy phrases • To describe family members • To explore cultural aspects of Mexico, Perú, Puerto Rico, and Guatemala • To express temporary states, sensations, and conditions • To identify people and things • To talk about shopping	 During this year, students will learn the language through five different learning units. The vocabulary is organized by topics or situations related to the theme of the unit. The vocabulary is reinforced and used in different contexts. The grammar of language is directly related to the communicative function. Each unit has a grammatical comparison between the Spanish language. Cultural maps not only give a different perspective of the countries studied but also provide readings related to the culture of that country. Objectives To introduce people To describe family members and friends To describe people's physical features and personality traits To talk about the parts of the house and household furniture To identify the parts of the body and their basic functions To talk about physical and emotional conditions To identify professions and workplaces To express free-time 	 During this year, students will learn the language through five different learning units. The vocabulary is organized by topics or situations related to the theme of the unit. The vocabulary is reinforced and used in different contexts. The grammar of language is directly related to the communicative function. Each unit has a grammatical comparison between the Spanish language and the English language. Cultural maps not only give a different perspective of the countries studied but also provide readings related to the culture of that country. Objectives To identify yourself and others. To describe people. To express states of being and feelings. To use expressions to introduce oneself, to express admiration of someone and to express joy and fun. To describe a person's physical characteristics and personality traits. To make comparisons and use superlatives. To identify and describe places. To describe a
	 and schedules To express likes and dislikes To describe and 	 activities To demonstrate interest in certain hobbies To talk about past 	 neighborhood. To use expressions that confirm information, express surprise or

		1
To represent quantity i	-	or disapproval.
words and phrases	• To talk about	• To describe the rooms in a
To decide what to buy ot amongsty food stores	destinations and	house.
at specialty food stores		• To talk about household
and perform tasks in a kitchen	• To express cause	chores.
	• To describe nature and	• To talk about places in the
		community.
dining table, and	• To wish someone good	To talk about past shopping
actions and expression related to dining	· 1	experiences.
Vocabulary	admiration, and to state	• To use expressions that asks
Alphabet	quantity	about and expresses knowledge of a fact,
Classroom items	VocabularyFamily members	expressions that express the
Days of the week,		order of actions, and
• Days of the week, months and seasons	Personality traits and physical abaracteristics	expressions to wish
 Useful expressions in 	physical characteristics	somebody luck.
• Useful expressions in the classroom	Places and objects in the home	 To talk about food.
Weather terminology		 To give shopping related
Weather terminologyFamily members,	Chores and leisure activities	commands.
• Fainty members, physical characteristics		 To communicate in
and personalities	e	common dinning related
 Parts of the house, 	 Parts of the body Daily bygione routings 	situations.
• Faits of the house, furniture, and	 Daily hygiene routines Usalthy lifestyle hebits 	 To talk about a restaurant
household items	Healthy lifestyle habits	experience.
Leisure activities	Professions	 To use expressions to order
 Leisure activities Stores in a shopping 	Workplaces	food in a restaurant,
center	• Free-time activities,	expressions to ask a waiter
Clothing, and footwear	hobbies, and sports	for something, and
 Food: meals and 	nioues of transportation	expressions to ask for
beverages	• Travel actions and	something on the table.
Useful expressions	information	Vocabulary
about meals	Destinations and	• Personal introductions,
Grammar	accommodations	expressing admiration,
To pronounce and spel	Directions	expressing feelings and
Spanish words		emotions.
 To ask questions 	1,000	• Family members and
 To tell time 	Geographical terms	personal relationships.
• The verbs SER,	Political divisions	• Physical characteristics and
TENER, and ESTAR	Grammar	personality traits.
 To describe people: 	• The verbs ESTAR, SER,	• Emotional states and
descriptive adjectives,	and TENER	feelings.
gender and number	Gender and number agreement in adjactives	Household chores.
agreement	agreement in adjectives and nouns	• The house.
 To identify nouns, 		• Home furnishings and
gender, number, and	Adverbs of location	accessories.
articles	• IR A + place	• Home appliances.
• To conjugate present	• Verbs in the present	• The neighborhood.
tense verbs ending in –	tense Vorb CUSTAP	• Clothing and accessories.
AR, -ER, -IR	• VEID OUSTAK	• Fabric and fit.
• To specify frequency	Reflexive verbs Commands	• Expressions used to express
using adverbs	• Commands	the order of actions.
• To express actions in	• To express the actions of	• Expressions used to ask
the present through	the five senses	about and to express
irregular verbs: e>ie,	Present progressive	knowledge of a fact.
	Present participle	

 o>ue To express likes and dislikes: verb GUSTAR To make comparisons To express desire and preference using: OUEDED and the preference using: 	l actions
 dislikes: verb GUSTAR To make comparisons To express desire and preference using: IR verbs in the preterit tense of the verbs in the grocery store. Food packaging and in the grocery store. Food preparation and flavors. 	
 To make comparisons To express desire and preference using: 	
To express desire and preference using: SER and IR Food preparation and flavors. Food preparation and flavors.	
preference using: SER and IR flavors.	
QUERER and • Expressing cause using • Expressions used to	order
PREFERIR the conjunction food in a restaurant.	
• To decide for whom an PORQUE and the • Expressions used to	
action is performed or preposition POR waiter for something	
who benefits from it • Irregular verbs DECIR • Expressions used to	
Culture and HACER something on the tal	
Greetings and Irregular verbs TENER Grammar	
introductions in the past tense • Possessive adjective	es and
Saying goodbye and Culture pronouns.	
common courtesies • The geography and • Adjectives and nour	ıs.
Frida Kahlo: life and art history of Spain Comparisons and	
Comparison between El Guernica by Pablo superlatives.	
families in the United Picasso • To ask questions:	
States and Mexico • The most important interrogatives.	
Symbols of Puerto places to visit in Spain Present progressive	tense.
Rico, famous• To explore the cultural• Present participles.	
monuments, and aspects of Spain • Direct object pronot	uns.
geographic maps • The latin point of view of • Indirect object pron	ouns.
Units of measure used United States: la calle Demonstratives.	
in Puerto Rico ocho, little Habana • Regular – AR verbs	in the
Cultural information Bilingual professions preterite tense.	
about Guatemala, el • The Hispanic Society of • Regular –ER and –I	R verbs
quetzal, Tikal, America Museum in the preterite tense	
Rigoberta Menchú, and la marimba • Latin Grammy Awards • Irregular verbs SER	
• The role of inde in DECIR, IENER, E	
ancient culture	preterite
Currency in Customela	
Chtenting and Schrödinger	
about Party the Incas	erite
the Nazee lines and the	
Caballitos de tatora	:
• The food in Derrí	
The food in Peru tradition The most important Singular affirmative commands.	;
places to visit in Plural affirmative	
Argentina commands.	
Iguazú Falls Negative commands.	s
The works of an Culture	,.
Argentine author • Ancient America: N	lavas
To explore the cultural Anterior Anteri	14745
aspects of Argentina • Central American	
Atacama Desert and el geography and culture and el geography and el geography and el geography and	ires.
Valle de la luna • Las Antillas Mayore	
Currency in Chile Menores. Tourism i	
• Viña del Mar and the Caribbean.	
festival • Los Andes Centrale	s: La
A Chilean poet: Pablo Avenida de los volc	anes,
Neruda traditional clothing	and

			 textiles from the Andes. Norteamérica: Traditional dishes, Cacao and chocolate, Cultural aspects of meal times, Tex-Mex culture: Music and Food.
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GPS	S Middle S	chool Scop	e & Sequence
	Grade 6	Grade 7	Grade 8
Visual Arts	In the first year of middle school art, the students consider how the elements of art and principles of design can be used as the framework for creating original artworks. They are responsible for demonstrating how to use the tools, materials, and techniques of various 2D and 3D media to make intentional choices in original art. They deconstruct color theory, investigate two and three dimensional art media in art history and analyze the systems of the basic building blocks of art making. • Line, shape, color, form, texture, value, space are the elements of art. Students will identify, define and categorize these elements. They will explore how these combine to create the principles art: rhythm, balance, contrast, pattern,	Year 2 of art consists of two units of inquiry. In the first unit, Beauty in Action, Art and PE focuses on how movement, in both visual art and physical education, is a driving principle. Observing and creating the sensation of movement through physical activity and in figure studies serve as an interdisciplinary overlap and a way to make learning both fun and relevant. In year 2, the middle school students are using the idea of the figure in motion as inspiration. The students practice creating a grid, which is used to transfer a photo of a figure in motion. They learn about proportions and gesture drawing. They create value scales and drawing techniques to decide which method to use for their final draft. They design and photograph a partner underwater to capture movement. They create an original work using a	Year 3 art consists of two units of inquiry. In the first unit, Expressing ideas and information through art - Empty Bowls for 8th, the students observe, practice and utilize the skills needed to create ceramic bowls to be used for the Empty Bowls event in April. They use their process journals to plan, sketch and revise their design. After they have determined their artistic intent, they use the bowl as their canvas to depict the style and culture of an artist of their choosing. They reflect on their process and write an artist statement about their artwork. In the second unit, Identity Unboxed, the students explore how identity can be represented through artistic expression. They critique the art boxes of Joseph Cornell and Lucas Samaras. They explore how humans can express themselves through emotion, communication, action, body language and art. Also, they discuss how humans represent themselves with intention and choice. Identity is shaped by how we see ourselves and what we choose to be important. They create a self-portrait with a quotation that represents who they are and an identity box that shows how they see themselves inside and out. On the exterior, they are asked to incorporate a plaster cast of their face as part of the process. As with the first unit, they started with an artistic intent and
	movement, emphasis and unity.	model based in teaching	finished with an artist statement

	artistic behaviors (TAB)	reflection.
• Examples of art making experiences: o Color & Value: Color schemes,	wherein they choose the medium, scale and imagery to depict the	SKILLS
	art: Develop Craft, Engage & Persist, Envision,	

Express, Observe, Stretch and Explore, Understand the Art World, Reflect. The students inquire into different ways movement can be shown in works of art featuring the figure. Students examine works of contemporary artists whose work centers around the moving figure.
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	Grade 6	Grade 7	Grade 8		
Technology	The Design Cycle is introduced i and 3. Each year students are pre- using the steps of the design cycl the challenge involves the produce past, they have worked in conjun- demonstrates how to do a proper discover what makes a game enter create new, unique games that me and testing. In MYP year 3, the of students meet with their client – the designing. They then create idea is approved, build the game. The has created each year. At the end what was done well and what the	esented with a design challenge e, they develop a solution to the ction of a video demonstrating is ction with science with the end lab report. In year 2, students ertaining or fun and then use the cet the criteria of entertaining of challenge is to create games for the PTSO to ask a variety of quis, submit them to the client for e younger students look forward of each project, students refle	e, and working collaboratively le challenge. During MYP 1, how to do something. In the l result being a video that research/play games to e design cycle to help them or fun based on their research r the Halloween Carnival. The lestions before beginning the review, and once their design d to seeing what the 8 th grade oct on their efforts, looking at		

	Grade 6	Grade 7	Grade 8
Physical Education	 in the pursuit of To assist student and fitness. To develop effic understanding in recreational purs To offer an envi sportsmanship a Course Content: Students participate at a safe and f three categories: individu 	lifelong health. ts in developing and mainta tient and effective motor sk twolved in attaining compet suits. ronment, which encourages nd self-confidence. s will acquire the knowledg unctional level in a variety al and dual activities, game	ss towards an active and healthy lifestyle aining a healthy level of physical activity ills as well as knowledge and tence in a variety of athletic and s cooperation, teamwork, responsibility, e, skills, rules and strategies necessary to of physical activities from the following es, and movement activities. Lessons will reational and competitive environments.
	 comparison of indivi Measure and evaluat related physical fitne activity patterns. Develop individual g components of health (muscle strength, mu flexibility, aerobic ca composition). Participate in modera activity a minimum of Students will evaluat assessment results. Racquet Sports Fund serve, a backhand set Volleyball Fundament Hitting, Overhand ar Cricket/Baseball/Wh Fundamentals: throw and fielding. Be able and similarities of ea Basketball Activities passing, dribbling, an 	swer questions to draw a dual results. e changes in health- ess based on physical goals for each of the n-related physical fitness iscle endurance, apacity, and body ate to vigorous physical of 3 days each week. the pre/post Workout log amentals: a forehand rve, overhand serve intals; Passing, Setting, ad Underhand Serve iffle Ball wing, catching, hitting, to identify differences ch activity. : Fundamentals of ad shooting ttrition journal. Identify	 Develop a Callisthenic Workout Resistance training principles Safety concerns Proper technique/form Identifying and targeting muscle groups Identifying benefits of resistance training Improved level of physical fitness vs sport-specific training Participate in moderate to vigorous physical activity a minimum of 3 days each week. Racquet Sports Fundamentals: a forehand serve, a backhand serve, overhand serve

 Water) as well as understand the role each has in a healthy diet. Will be able to comprehend and identify Nutritional Facts Labels on food products Students will create an outdoor ball game with clear rules, boundaries and objectives. 	

Homework Policy

Students are assigned work from a variety of teachers during the course of their day. Homework duration will vary on a daily basis; however, as a general rule, homework will not typically exceed 90 minutes for Middle School students. Students will be assigned homework Monday through Friday. As students progress through Middle School, more long-range assignments will be required of them; thus some weekend work may be necessary. If you become concerned regarding the amount of time your student is spending on homework, please contact the subject area teacher and/or advisor first before contacting the principal.

In Middle School, if a child is absent, it is his/her responsibility to call a classmate and/or email teachers and/or check Renweb to determine missed assignments. Students are expected to make up the work promptly; students are given 2 days for every day absent to make up work. If students know ahead of time that they will be absent, students should contact each teacher for assignments to complete while absent or to make appropriate arrangements.

In order to help students learn solid organizational skills and to facilitate communication between home and school, each Middle School student is provided with a GPS assignment notebook or planner. All students are expected to use this book daily. Students are responsible for having the appropriate books and materials in class each day.