

## Secondary School Scope and Sequence

Electives

7-8 grade electives include choir, drawing, general art, acting, PE, orchestra, madrigal performers 8-12 grade electives include political science, computer programming, orchestra, theater, yearbook, creative writing, drawing, general art, leadership, photography, choir, madrigal performers, theology and philosophy, polyhedral, history and philosophy of math, number theory, and economics.

Grade	Omnibus	Math	Science	Paradigm Classes	Language	Special Events
Level Grade	Curriculum:	Algebra A:	Earth and Life	Logic 1:	Latin:	Narnia Feast, Gödel
7	Omnibus Textbook, assigned books and readings <u>Goals:</u> Students will learn to read, discuss, and engage primary and secondary materials in theology, philosophy, history, and literature during the ancient period. <u>Reading List</u> <u>Includes:</u> <i>Chronicles of</i> <i>Narnia, Epic</i> <i>of Gilgamesh,</i> <i>The Odyssey,</i> <i>The Holiness</i> <i>of God</i> , and more	Curriculum: Introductory Algebra, Elayn Martin-Gay Goals: Part 1 of a 3 year algebra sequence developing the algebraic language necessary for study in higher mathematics. Introduction to solving linear equations and their applications. <u>Assignments:</u> Graded Homework, Quizzes, Tests, Semester Final Exams -OR- <b>Algebra AB</b> <u>Curriculum:</u> Elementary Algebra, Harold R. Jacobs <u>Goals:</u> Part 1 of a 2 year algebra sequence developing the algebraic language necessary for study in higher mathematics. Introduction to solving equations up to the derivation and use of the quadratic formula. <u>Assignments:</u> Graded Homework, Quizzes, Tests, Semester Final Exams	Science: Curriculum: Prentice Hall Life Science, Pearson Earth Science Goals: Provide an overview of our earth and the life on it; core knowledge in map skills, land forms, weather, minerals and rocks. Assignments: Reading, worksheets, quizzes, tests	<u>Curriculum:</u> Logic I : Categorical. Propositional. Predicate <u>Goals:</u> Learn categorical logic, testing the validity of syllogisms using three rules of validity; learn propositional logic, testing the validity of arguments using rules of substitution and truth tables; and learn predicate logic, parsing propositions into subject and predicate and applying universal and existential quantifiers <u>Assignments:</u> Quizzes, Tests	<u>Curriculum:</u> Latin Alive! Book 2 <u>Assignments:</u> Grammar worksheets, translations, reading comprehension, recitations, quizzes, unit tests. <u>Goals:</u> Learn various degrees of adjective and adverbs, new ablatives and datives, pronouns, passive voice verbs, dependent clauses, and participles. Be able to apply grammar in such a way as to translate into idiomatic English.	Field Trip to Princeton, Omnibus Tea Party, Gödel Logic Test I, Math Unit/Chapter Study Guide, Washington DC field trip, Trip to NYC, Philadelphia, or Baltimore
Grade 8	<u>Curriculum:</u> Omnibus Textbook, assigned	Geometry: <u>Curriculum</u> : Elements, Euclid Geometry: Seeing, Doing, Understanding, Harold R. Jacobs	Physical Science: Curriculum: Prentice Hall Physical Science	Logic 2 Curriculum: Logic II: Principia. Application	Greek: <u>Curriculum:</u> Basics of Biblical Greek, textbook and workbook. Alpha to	Rivendell Feast, Illuminated Manuscript Project, Beowulf, Logic,

	books and readings <u>Goals:</u> Students will learn to read, discuss, and engage primary and secondary materials in theology, philosophy, history, and literature during the medieval period. <u>Reading List</u> <u>Includes:</u> Lord of the Rings, Confessions, Inferno	Assignments: Graded Homework, Quizzes, Tests, Semester Final Exams Goals: Survey of Euclidean Geometry, beginning with book 1 of Euclid's <i>Elements</i> and Euclid's proof of the Pythagorean Theorem, and moving to modern geometry and introduction to trigonometric ratios.	<u>Goals:</u> Provide a dynamic, hand-on class designed to build comprehension of basic chemistry principles and the laws of physics. Application of scientific method <u>Assignments:</u> Reading, worksheets, problem-solving, quizzes, tests	<u>Goals:</u> Learn propositional logic axiomatically, following <i>Principia</i> <i>Mathematica</i> . End the year with applying informal fallacies to famous debates and translate passages of Scripture into logical form and prove the arguments as valid <u>Assignments:</u> Quizzes, Tests	Omega Athanaze <u>Assignments:</u> Quizzes on vocab and grammar, tests on vocab, grammar and translation, workbook pages, and parsing exercises <u>Goals:</u> Memorize common NT Greek vocabulary; learn basic Greek grammar; translate simple NT passages. Key for the logic stage: Greek is a very logical language that forces students to look closely and think carefully and logically about details of words and sentences.	Gödel Logic Test II, Beowulf's arm project, Washington DC field trip, Trip to NYC, Philadelphia, or Baltimore, polyhedron model
Grade 9	Curriculum: Omnibus Textbook, assigned books and readings <u>Goals:</u> Students will learn to read, discuss, and	Algebra BC <u>Curriculum:</u> Algebra & <u>Trigonometry</u> , Paul A. Foerster <u>Assignments:</u> Graded Homework, Quizzes, Tests, Semester Final Exams <u>Goals:</u> Part 2 of a 2 year algebra sequence developing the algebraic language necessary for	Biology: <u>Curriculum:</u> The Study of Life <u>Assignments:</u> Reading, discussion, worksheets, quizzes, tests, build a cell model	English Composition: <u>Curriculum:</u> Elegant Essays, Elements of Style, Sentence Composing for High Schoolers, The Lively Art of Writing, The Art of Poetry Assignments:	Latin 1: <u>Curriculum:</u> Latin Alive! Book 3 <u>Assignments:</u> Translations, reading comprehension, grammar worksheets, unit tests. <u>Goals:</u> Review old grammar, and learn the subjunctive mood,	Murder mystery dinner, Pride and Prejudice tea party, chocolate party, British-American trading treaty event, Washington DC field trip, Trip to NYC, Philadelphia, or Baltimore, math unit/chapter study

	engage primary and secondary materials in theology, philosophy, history, and literature during the modern period. <u>Reading List</u> <u>Includes:</u> <i>Great Gatsby,</i> <i>Pride and</i> <i>Prejudice,</i> <i>Murder on the</i>	study in higher mathematics. Exploration of all non- trigonometric elementary functions. -OR- <b>Algebra B</b> <u>Curriculum: Intermediate Algebra,</u> Charles P. McKeague <u>Assignments:</u> Graded Homework, Quizzes, Tests, Semester Final Exams <u>Goals:</u> Part 2 of a 3 year algebra sequence developing the algebraic language necessary for	<u>Goals:</u> Study life at the cellular level; cell structure, cellular respiration, photosynthesis, and cell division as well as human anatomy, plants and microorganisms are explored.	Write clear and concise sentences and paragraphs Write solid, thoughtful 5- paragraph essays Attend to and learn from well-written sentences, paragraphs, essays, poetry, and speeches <u>Goals:</u> Come to appreciate and enjoy an assortment of writing techniques and styles; develop skill and understanding in the basics of grammar and writing.	various clauses, infinitives, and sequence of tenses. Be able to read unadapted Latin, and scan poetry for meter. <b>Spanish 1:</b> <u>Curriculum:</u> Navegando I (chs. 1-8) <u>Assignments:</u> homework, independent vocabulary study, quizzes (two per chapter), chapter tests, scripture recitation, semester final exam, Hispanic geography quizzes	guide
0.000	Orient Express, Nine Tailors	study in higher mathematics. Introduction to various functions including rational functions and the derivation and use of the quadratic formula.	Ohomiistere		<u>Goals:</u> Become proficient in the grammatical concepts and vocabulary covered over the course of the two semesters, building a firm foundation for Spanish II.	
Grade 10	Curriculum: Omnibus Textbook, assigned books and readings <u>Goals:</u> Students will learn to read, discuss, and engage primary and secondary materials in theology, philosophy, history, and literature during the	Trigonometry: <u>Curriculum</u> : Algebra & Trigonometry, Paul A. Foerster <u>Goals</u> : Exploration of the properties of trigonometric ratios and functions as well as other pre-calculus topics. <u>Assignments</u> : Graded Homework, Quizzes, Tests, Semester Final Exams -OR- <u>Algebra C</u> <u>Curriculum</u> : Advanced Algebra, UCSMP Assignments: Graded Homework,	Chemistry: <u>Curriculum</u> : Prentice Hall Chemistry <u>Goals</u> : Build competency in understanding of matter including the elements, periodic table, reactions, scientific measurement, and stoichiometry. <u>Assignments</u> : Reading, problem- solving, memorization, worksheets, quizzes, tests	Rhetoric and Systematic Theology Students learn the art of public speaking through progymnasmata in Rhetoric as well as the fundamentals of Christian theology in systematic theology	Latin 2/3: <u>Curriculum:</u> Latin Alive! Reader <u>Assignments:</u> Translation, composition, respond in Latin questions, tests. <u>Goals:</u> Read and discuss unabridged Latin from various authors for a better understanding of Latin and Roman culture. Learn to scan lyric as well as epic poetry, and do literary analyses. <u>Spanish II:</u> <u>Curriculum:</u> Navegando I	Greek Olympics, Trigonometry Scavenger Hunt, Washington DC field trip, Trip to NYC, Philadelphia, or Baltimore, Trigonometric Ratio Scavenger Hunt, Vector Addition Treasure Hunt, read <i>Flatland</i> by Edwin A. Abbott

	ancient period. <u>Reading List</u> <u>Includes:</u> <i>Aeneid,</i> <i>Plato's</i> <i>Republic,</i>	Quizzes, Tests, Semester Final Exams <u>Goals:</u> Part 3 of a 3 year algebra sequence developing the algebraic language necessary for study in higher mathematics. Exploration of elementary			(ch. 9), Navegando II (chs. 1-6) <u>Assignments:</u> review Spanish I (grammar and vocabulary), homework, independent vocabulary study, quizzes (two per chapter), chapter tests,	
	Thucydides	functions including an introduction to trigonometric functions.			Scripture recitation, semester final exam, Hispanic geography quizzes, writing assignments <u>Goals:</u> Become proficient in the grammatical concepts and vocabulary covered over the course of the two semesters, growing in reading and writing skills	
Grade	Curriculum:	Calculus I:	Physics:	Apologetics:	Latin 2/3:	Jousting event,
11	Omnibus	Curriculum: Calculus: Early	Curriculum:	Curriculum: Materials	Curriculum: Latin Alive!	Jewish Passover
	Textbook,	Transcendental Functions,	Exploring Creation	that cover systematic	Reader	dinner, Hershey
	assigned	Larson, Hostetler, Edwards	with Physics, Dr.	theology, epistemology,		Park physics trip,
	books and	Goals: Introduction to limits,	Jay L. Wile,	logic, and evangelism	Assignments:	statistics field trip,
	readings	derivatives, integrals, and their	Apologia	-	Translation, composition,	Washington DC
		applications, including the Disk	Goals: Students will	Goals: Learn how to	respond in Latin	field trip, Trip to
	Goals:	Method. Proof of the	be introduced to the	defend the Christian	questions, tests.	NYC, Philadelphia,
	Students will	Fundamental Theorem of	study of the	faith		or Baltimore, Euler
	learn to read,	Calculus.	workings of the		Goals: Read and discuss	line linear algebra
	discuss, and	Assignments: Graded Homework,	universe,	<u>Assignments:</u> Quizzes,	unabridged Latin from	review
	engage	Quizzes, Tests, Semester Final	specifically including	Tests.	various authors for a	
	primary and	Exams	vector operations,		better understanding of	
	secondary		kinematics and	-AND-	Latin and Roman culture.	
	materials in	-OR-	motion, Newton's	Jr. Thesis	Learn to scan lyric as	
	theology,	Trigonometry:	laws, work and	Goals: Use scholarly	well as epic poetry, and	
	philosophy,	<u>Curriculum:</u> Algebra &	energy, periodic	research and	do literary analyses.	
	history, and	Trigonometry, Paul A. Foerster	motion, optics,	professional writing	Creatick III.	
	literature	Goals: Exploration of the	electricity, and	skills to develop a paper		
	during the	properties of trigonometric ratios	magnetism.	that expresses one's	Curriculum: Navegando	
	medieval period.	and functions as well as other pre-calculus topics.	Assignments: Homework Sets, In-	position on a topic in a manner that is	II (chs. 7-9), Navegando III (chs. 1-3)	
	penou.	Assignments: Graded Homework,	Class Problems,	grammatically correct,	Assignments: review	
	Reading List	Quizzes, Tests, Semester Final	Labs, Quizzes and	logically sound,	Spanish II (grammar and	
	Includes: City	Exams	Tests	rhetorically persuasive,	vocab), homework,	
	of God,		10313	academically formatted,	independent vocab	
	Divine	-OR-	-OR-	and biblically accurate.	study, quizzes (two per	

	Comedy, Sir Gawain and the Green Knight	Statistics: <u>Curriculum:</u> Stats: Modeling the World <u>Goals:</u> Intro to probability, measure of central tendency and dispersion, normal distribution and inference, stats in media, <u>Assignments:</u> Poster presentation, textbook exercises, quizzes, exams, investigative tasks	Human Anatomy and Physiology: <u>Curriculum:</u> Human Anatomy and Physiology <u>Assignments:</u> Reading, assessment, questions from the text, quizzes, tests <u>Goals:</u> This college level course is	<u>Assignments:</u> Grammar quizzes, Topic ideas, Research notes, Thesis statement, Argument outline, Rough draft, Editing exercises, Final draft, Oral presentation	chapter), chapter tests, Scripture recitation, semester final exam, Hispanic geography quizzes, writing <u>Goals:</u> Become proficient in grammatical concepts and vocab covered over the course of the two semesters, growing in reading, writing and verbal proficiency skills	
Grade 12	Curriculum: Omnibus Textbook, assigned books and readings <u>Goals:</u> Students will learn to read, discuss, and engage primary and secondary materials in theology, philosophy, history, and literature during the modern period. <u>Reading List</u> <u>Includes:</u> Anna Karenina, Moby Dick, Paradise Lost, Brave New World	Calculus I: <u>Curriculum:</u> Calculus: Early Transcendental Functions, Larson, Hostetler, Edwards <u>Goals:</u> Introduction to limits, derivatives, integrals, and their applications, including the Disk Method. Proof of the Fundamental Theorem of Calculus. <u>Assignments:</u> Graded Homework, Quizzes, Tests, Semester Final Exams OR <u>Calculus 2</u> <u>Curriculum:</u> Calculus: Early Transcendental Functions, Larson, Hostetler, Edwards <u>Goals:</u> Exploration of advanced integration techniques, applications of integration, and infinite series. <u>Assignments:</u> Graded Homework, Quizzes, Tests, Semester Final Exams	designed to build appreciation for the complexity of the human body as well as an understanding of body parts and processes. <b>Physics:</b> <u>Curriculum:</u> <i>Exploring Creation</i> <i>with Physics,</i> Dr. Jay L. Wile, Apologia <u>Goals:</u> Students will be introduced to the study of the workings of the universe, specifically including vector operations, kinematics and motion, Newton's laws, work and energy, periodic motion, optics, electricity, and magnetism. <u>Assignments:</u> Homework Sets, In- Class Problems, Labs, Quizzes and Tests -OR-	Sr. Thesis <u>Curriculum:</u> Grammar Workbook, A Manual for Writers, The Elements of Style <u>Goals:</u> Learn how to write and defend a scholarly paper <u>Assignments:</u> Writing, Editing, Presenting.	Latin 2/3: <u>Curriculum:</u> Latin Alive! Reader <u>Assignments:</u> Translation, composition, respond in Latin questions, tests. <u>Goals:</u> Read and discuss unabridged Latin from various authors for a better understanding of Latin and Roman culture. Learn to scan lyric as well as epic poetry, and do literary analyses. <b>Spanish IV:</b> <u>Curriculum:</u> Navegando III (chs. 4-10), Leyendas Latinoamericanas <u>Assignments:</u> review Spanish III (grammar and vocab), homework, independent vocab study, quizzes (two per chapter), chapter tests, Scripture recitation, semester final exam, Hispanic geography quizzes, writing assignments Goals: Become proficient	Senior class trip with headmaster, Sr. Roast, Hershey Park physics trip, statistics field trip, Washington DC field trip, Trip to NYC, Philadelphia, or Baltimore, proof of Euler's identity, calculus summary creative project, presentation: deceptive use of statistics in media, poster presentation: statistical study

	Human Anatomy and Physiology: Curriculum: Human Anatomy and Physiology Assignments: Reading, assessment, questions from the text, quizzes, tests Goals: This college level course is designed to build appreciation for the complexity of the human body as well as an understanding of body parts and processes.	in the grammatical concepts and vocab covered over the course of the two semesters, growing in reading fluency and comprehension, writing and verbal skills
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