

2016-2017 Curriculum Guide



PINGRY

EXCELLENCE & HONOR

THE PINGRY SCHOOL
Basking Ridge Campus, Middle & Upper School
Short Hills Campus, Lower School
131 Martinsville Road
Basking Ridge, NJ 07920

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MISSION STATEMENT AND PHILOSOPHY

Founded in 1861, The Pingry School is an independent, coeducational, college preparatory day school for students in kindergarten through the twelfth grade. Situated on two spacious campuses in Martinsville and Short Hills, New Jersey, the school draws students of varied talents and diverse backgrounds from many communities in the central New Jersey region.

MISSION STATEMENT

The mission of The Pingry School is to foster in students a lifelong commitment to intellectual exploration, individual growth, and social responsibility by inspiring and supporting them to strive for academic and personal excellence within an ethical framework that places the highest value on honor and respect for others.

PHILOSOPHY

Pingry promotes excellence at all levels of school life. Students participate in a demanding college preparatory program, complemented by extensive cocurricular opportunities. The total Pingry experience encourages students to reach their fullest intellectual, moral, aesthetic, creative, and physical potential. Implicit in this challenge is the School's belief that, as students mature, they should assume an increasing responsibility in shaping their own educational experiences. Accordingly, they develop the initiative, self-reliance, and independence essential for reaching their full potential and for making the most of their years at Pingry and beyond.

The Pingry experience is based on mutual respect and personal integrity. All members of the community are expected to honor the rights of others, to conduct themselves at all times in a moral and decent manner, and to see this responsibility as an integral part of their lives at Pingry and as citizens of the larger community of the world. The foundation of this belief is Pingry's Honor Code, which, since 1926, has set the ethical standard that underlies every dimension of school life.

Pingry encourages close personal relationships among all its members, in order to nurture and guide its students. These relationships create an atmosphere of trust and support in which students see independence, initiative, and imagination as the means to pursue self-discovery, develop qualities of leadership, and affirm a sense of self-worth. Imbued with these values, students give freely of their time and talents, mindful of how these contributions of individuals enhance the quality of school life for the entire community.

Pingry is a diverse community joined by a single vision. All members, including trustees, administration, faculty, staff, students, parents, and alumni, contribute to the School in many different ways but share a unified and consistent commitment to Pingry's mission. The core of this commitment, and the link between Pingry's past and future, is John Pingry's founding motto: "Greatest respect is due students."

DIVERSITY AND INCLUSION

The Pingry School is committed to sustaining a welcoming and supportive environment both for children and families in its community and those interested in joining the Pingry family. Honoring our legacy and defining our future, the Pingry community values and celebrates a broad definition of diversity that includes ethnicity, race, religion, gender, sexual orientation, and socioeconomic status. Recognizing that the only constant in the world of tomorrow will be change, effective leadership will demand intellectual flexibility and agility, creativity, teamwork, comfort with complexity and ambiguity, experience with diversity, and above all, character and honor. As we prepare our students to claim their place as leaders in the 21st century, it is essential that their intellectual engagement occur in a multicultural environment. Daily experiences with differing perspectives of our larger society, while leaning firmly into that which can be a source of discomfort, will prepare our graduates to thrive as culturally competent individuals in a multicultural world.

STATEMENT OF OBJECTIVES

Pingry's primary objective is to bring together good students and good teachers. It seeks students able to benefit from the challenge of a broad and thorough education and teachers dedicated to the student as an individual and to their own fields of instruction.

Pingry strives to maintain small classes in order to foster a close relationship between faculty and students and promote the give and take of thinking and communication. It strives to provide ample conference time for giving personal attention to each student's needs.

To further its goal of developing all aspects of the individual student, Pingry strives to achieve a good balance among academic, physical, and extracurricular programs, and to provide for cultural development and involvement of the student in community service.

In carrying out the academic aspects of its program, Pingry's objective is to develop fundamental intellectual skills which make possible critical thinking and independent judgment. It stresses the ability to communicate as an aid to clear thinking. It strives to stimulate the development of curiosity and imagination. It offers extensive opportunities in music, drama, and the arts to develop the student's aesthetic sense.

In physical education, Pingry emphasizes healthy physical development and the value of teamwork, group loyalty, sportsmanship, and the cultivation of control under pressure.

In extracurricular activities, the School seeks to provide a diversity of stimulating programs to furnish students with healthy diversion and opportunities for widening their horizons.

Woven through all of Pingry's endeavors is the objective of developing character. The School seeks to teach students from an early age the meaning and importance of self-discipline, personal integrity, respect for the rights of others, and an appreciation of traditional values, including the ability to work with others and a sense of social responsibility. The Pingry Honor System strives to reinforce the development of character through student participation and personal assumption of responsibility in all phases of school life.

Since education is an enterprise that should be shared between school and parents, Pingry seeks to encourage good communication with parents, their participation in school activities, and their understanding of the interdependence of school and home responsibilities.

Pingry seeks to serve the daily needs of students in a concerned way, monitor their curriculum at all stages of their educational careers, and aid them in making decisions that will lead to appropriate college choices.

To furnish its faculty the best possible tools, Pingry seeks to provide modern, efficient, and stimulating physical facilities — classrooms, libraries, laboratories, computer facilities, and playing fields — and to maintain them in good order.

To continue to meet its objective of providing a broad and thorough education to students able to accept the challenge, Pingry recognizes that it must adapt to change. It aims to review critically and periodically its curriculum, methods, and facilities and to remain open, flexible, and responsive.

THE HONOR CODE

Pingry believes that students should understand and live by standards of honorable behavior which are essentially a matter of attitude and spirit rather than a system of rules and regulations. Decent, self-respecting behavior must be based on personal integrity and genuine concern for others and on the ethical principles which are the basis of civilized society.

The members of the Pingry community should conduct themselves in a trustworthy manner that will further the best interests of the school, their class, and any teams or clubs to which they belong. They should act as responsible members of the community, working for the common good rather than solely for personal advantage. They should honor the rights of others, conducting themselves at all times in a moral and decent manner while at Pingry and throughout their lives as citizens of and contributors to the larger community of the world.

– Adopted by the Pingry Faculty 1949/Revised 1988

LOWER SCHOOL

PHILOSOPHY OF THE LOWER SCHOOL CURRICULUM

A curriculum describes what students should be learning through the grades. It should give clear statements of goals and objectives and should leave to teachers the decisions about how to realize them.

A good curriculum should be organized clearly and structured logically within and between subjects and from grade to grade. It should gradually become more complex and difficult in terms of skills and objectives.

While Pingry is structured to assure that all students who attend can go on to higher education, its primary aim is to develop all aspects of the individual student. It wants its students to know themselves, to respect themselves, and to develop their individual strengths. Pingry seeks to stimulate intellectual curiosity and critical thinking. Pingry would have its students constructively question the world around them. It would have them gain the ability to analyze critically and objectively. It would encourage them to seek to change that which they conclude should be changed and defend and strengthen that which they conclude should be preserved.

Pingry expects its students to work hard and to meet these challenges. It is only through continued maintenance of its standards and of the full partnership of the Pingry community that students can fulfill these goals.

DECISIONS

GRADES TWO, THREE, FOUR, AND FIVE

Helping new students adjust successfully to Pingry is the emphasis in all grades. In grades two, three and four, Decisions is taught for one trimester and in grade five it is taught for the entire year. In Grades two, three and four, the focus is on the skills needed to make and keep friendships. Through a series of class discussions, students negotiate the difficult task of learning how to be a friend. The program focuses on learning through discussions and in-class practice of decision making skills. The Decisions class also focuses on the differences between typical peer conflicts and bullying situations, enabling the students to develop their own personal advocating skills. The program helps students learn ways to stand up for themselves and others, while still keeping themselves safe.

The Fifth Grade program introduces new areas of personal and social competencies that are developmentally important for students. The following skills are taught: understanding feelings, building self-esteem, managing stress, and setting personal goals. The basic skills essential for successful decision-making include identifying feelings, choosing goals, thinking in terms of long- and short-term consequences, self-control, social skills for group participation, and overall social awareness. Classroom discussions of hypothetical situations are used to practice decision-making skills. Through role-playing and brainstorming, students become comfortable with the steps needed to make decisions that will help them in their lives. In fifth grade, Decisions also discusses the role of technology and social media and the effect they have in regards to friendships and peer relationships.

DRAMA

The Short Hills Drama Program aims to develop creative, collaborative, and critical thinking skills through dramatic exercises designed to help students in all facets of their natural development: emotional, intellectual, physical, vocal, and social. Kindergarten students work to develop physical creativity and focus. In First grade, sound and voice are added to the actor's toolbox. Second grade students devise characters and develop language to discuss performance choices. Third grade drama explores plot structure in collaborative storytelling. Group performance projects and process dramas challenge Fourth grade students to consider how a character's world affects his or her perspective, feelings, and actions. By Fifth grade, students are ready to examine text and subtext like professional actors, performing from various types of scripts and, finally, take on the role of playwrights to capture their dramatic ideas on paper.

HEALTH

Children today are growing up in a complex society characterized by uncertainty and rapid change. The issues our youth confront daily make health education an integral part of a balanced and comprehensive school program. The health curriculum is continually examined and modified to keep current with such a dynamic, ever-changing field. The program is designed to develop specific skills that we believe are essential to maintaining one's health — emotionally, socially, and physically. Students gain practice in applying these skills as various health topics are introduced. While major topics are emphasized through the health program, certain aspects of the curriculum are addressed in science and in the regular classroom as well. Information on each topic is age-appropriate and is taught sequentially, with each year building on the previous one.

KINDERGARTEN, GRADES ONE AND THREE

In Kindergarten, Grade One, and Grade Three, the following topics are covered: identifying and expressing one's feelings; promoting self-esteem; personal safety; safe and unsafe substances; disease prevention; basic body and dental hygiene; and fire safety.

GRADE FOUR

In Grade Four, topics include personal growth, physical development, and personal hygiene.

GRADE FIVE

In Grade Five, topics include disease prevention, AIDS education, relationships with family, friends, and peers, expressing feelings in a positive way, making responsible decisions, tobacco, alcohol, and other drugs education, coping and communications skills, personal growth and development, nutrition, personal hygiene, dental care, auditory awareness, and the benefits of exercise.

LIBRARY MEDIA CENTER

The Library Media Center supports and enriches the curriculum at the Lower School and serves as an integral component of the school. The collection contains diverse materials in a wide range of formats to serve the academic and recreational needs of the students. The collections contain 22,000 print volumes, e-Books, several online research databases, newspapers, magazine, DVDs, digitized audio books, and streaming books and videos. A network of ten computers provides access to the online catalog, the Internet, and the online subscription databases which serve as information resources for student research. In addition, there are sixteen Chromebooks which accommodate a class for instruction on effective research strategies to meet and support the curriculum requirements.

Each class from kindergarten through grade five has one scheduled library period per six day cycle. Students are encouraged to visit the library anytime with teacher permission to exchange books or research topics. Through exposure to classic and contemporary children’s literature at all grade levels, students develop an appreciation for books and reading. In addition to story times, book talks, reader’s theatre and other activities related to curricular themes and topics, students receive instruction in library and research skills through content-based and inquiry-based learning. Throughout the grades, an emphasis is placed on the development of information literacy skills through the use of all the library resources. Skills build sequentially from year to year.

KINDERGARTEN – GRADE TWO

Students are introduced to basic library skills which include care of books and responsibility. Good stewardship is emphasized. Students are introduced to the differences between fiction and nonfiction and learn the basic parts of a book, such as spine, dedication, and title page. The role of the author and illustrator are explored and particular authors’ works are studied and compared. Students use online streaming books, such as Tumble-Books, and age-appropriate online research databases. In first grade, the skills build to the use of the online catalog, locating books, finding “just right books”. In second grade, students learn basic research skill using print and online reference resources and are introduced to biographies. There is an emphasis on reading nonfiction, and students learn to identify and use the parts of a nonfiction book such as the glossary, index, and table of contents.

GRADE THREE

The skills continue to build and expand in third grade. Research skills develop to include note-taking, citing sources, and identifying important facts. The Dewey Decimal System is introduced and the concept of classification is explored. Research is conducted using library online subscription databases such as Scholastic Go and World Book Online to access, analyze, and evaluate facts and information to support the third grade social studies curriculum. E-Books are provided for individual student access and for class books and instruction on curricular topics.

GRADE FOUR

Throughout the year, students learn to effectively use the online databases to research topics related to classroom learning and the fourth grade curriculum. In the library, they learn to refine their search strategies through the use of advanced research tools, targeted keywords, and the selection of appropriate online databases. While researching topics for social studies projects, students learn to cite sources. The concept of genre is introduced and books are available to select by different categories.

E-Books continue to be available for check out and students are encouraged to read Newbery Award books. Students use the “SuperBooks” wiki to recommend books to their classmates.

GRADE FIVE

Students learn to think critically about the information and facts they retrieve from websites during their research through a unit presented during library class on “Website Evaluation.” Students learn strategies to evaluate their sources of information and to determine if the information is valid, reliable, and current, and also they are taught to be aware of bias in the content. The overall concept of citing sources in a bibliography is introduced. Students learn the distinguishing elements of various genres, and they are encouraged to expand their genre choices throughout the year. Students write formal book reviews evaluating and recommending their independent reading selections using the library SuperBooks wiki. During the second part of the year, students conduct a research project on China using print and online resources to create a project using Google Presentations and Google Translation.

MATHEMATICS

The elementary program fosters the acquisition of mathematical power - the ability to use, explain and justify mathematics. Students navigate the number system by counting, comparing, sequencing, combining, separating and partitioning numbers in many different ways. This exploration leads them to fluency and accuracy in arithmetic basics, with a depth of understanding of underlying concepts that will direct them toward success in higher mathematics. Elementary students are encouraged to develop flexible problem solving skills by exploring a variety of strategies, and to communicate their reasoning and methods to others. They also learn to represent quantities and solution strategies using pictures or diagrams, words, numerals, symbols and concrete materials such as counters, pattern blocks, tiles, coins and interlocking cubes. Creating and exploring multiple mathematical representations in this way leads students to evaluate their own mathematical conjectures, and construct meaningful and individualized understanding, rather than focus on a series of teacher-directed solution algorithms. Collaborating with peers enhances every child's learning experience, as students share and blend a range of reasoning methods from concrete manipulative models to elegant mental strategies. The curriculum reflects the standards established by the National Council of Teachers of Mathematics.

KINDERGARTEN

Beginning in Kindergarten, students are introduced to a way of approaching mathematics that emphasizes critical thinking, strategy development, communication and collaboration. Daily routines include recognizing combinations to 16, calendar math, collecting weather data, answering survey questions and expressing multiple representations of the elapsed number of school days. Of course, counting is extremely important in Kindergarten. Students count sets that are naturally interesting to them: fingers, hands, people, pockets, and objects that relate either to the season or a topic of classroom study. The children use pictures or tally marks, numerals and words to represent both fixed and accumulating quantities. These quantities may be recorded, compared, combined, classified according to one or more attributes, or aligned to demonstrate 1-to-1 correspondence. Skip counting by 2s, 5s and 10s is also introduced in Kindergarten, first through active play with hands and fingers, and later with tools such as tally marks and the 100 chart. Navigating the number system in this manner amply prepares students to add and subtract by combining and separating quantities. The children first explore combinations to 10, and solve simple number statements using pictures or counters. As their understanding of the concepts deepens, they develop strategies for solving story

problems by writing number sentences with attention to details that indicate the appropriate operation. For example: Did some of the birds fly off the branch, or did more land there? Kindergarteners also work extensively with patterns throughout the school year. They create, compare and extend visual and numerical patterns, both on paper and using manipulatives such as pattern blocks or interlocking cubes. Students also shrink, record and predict patterns.

Data analysis is another important Kindergarten topic. Students collect, record and represent data in a variety of ways all year. They analyze data sets in order to solve problems such as: How many more rainy days than sunny days were there during the month of April or how many children chose either strawberry or chocolate as their favorite flavor of ice cream? In geometry, Kindergarteners identify, name and explore relationships among 2-dimensional and 3-dimensional shapes, then combine them to make new shapes or cover a given area. They also measure in non-standard units, and write comparison statements of relative size. Throughout the school year, students continually question, estimate, and explain their reasoning in a comforting environment where math feels like play. Incorporation of art, reading and active games makes the Kindergarten mathematics curriculum meaningful and enjoyable for the youngest students.

GRADE ONE

In first grade, students continue to develop their understanding of the number system. Daily routines include counting, reading, writing, comparing and sequencing numbers to 100, data analysis, estimation, time and calendar math, and exploration of the concept of change over time. On the way to mastery of combinations and fact families to 20, the children write equations, find the total of several single-digit addends, and fortify their strategies for solving increasingly complex addition and subtraction story problems. First graders also skip count, forward and backward, by 2s, 5s and 10s. As their number line fluency improves over the course of the year, many first graders begin counting by 3s and 4s. An important concept that is introduced in grade 1 is money math. The children first identify and classify coins by appearance and value, then group and separate them to reinforce their understanding of counting on and counting back. First graders interpret representations of data that they have collected and categorized, and they begin to analyze data in quantitative terms. The children also create and extend increasingly complex patterns, including geometric patterns involving size, shape and orientation. This leads them to their study of 2D and 3D geometry, which goes beyond naming and classifying shapes to solving covering, filling, relative size and capacity problems. Then, through hands-on experimentation, first graders discover language for describing weight, capacity and length and use standard units to measure and compare them.

The first grade curriculum is extremely flexible, to accommodate the developmental stages of a range of learners. The children progress at their own pace from concrete, to pictorial, to abstract representations of quantity both when they count and when they solve addition and subtraction problems. They also play a variety of engaging math games that allow them to practice what they are learning in mathematically distinctive ways, which clarifies their reasoning and cements their understanding of number relationships.

GRADE TWO

In second grade, the children begin to look for patterns and relationships in the number system, deepening their understanding of how the system works. They use doubles, landmark numbers like multiples of 5 and 10, and 100 boards to facilitate addition combinations to 100. Students thoughtfully construct addition and subtraction equations to represent either a given number or a given scenario of combining and separating. For example, second graders write $24 + 11 - 17 = 18$ when it is the 18th day of school, or $$.50 + $.75 + $.12 - $.39 = $.98$ to show the net change inside a piggy bank as described in a story problem. Both equations can be modeled with manipulative materials like tiles or coins, drawn in pictures, solved using jumps on the 100 board, or computed mentally. Students share their equations and their solution strategies, pointing out “friendly” combinations of 10, doubles, grouping of terms and trading. Explaining their reasoning clarifies and cements the children’s understanding of their own strategies, and seeing a variety of solutions helps every student to develop increasingly sophisticated

problem solving skills by internalizing the best of what they see presented to the group or class.

Second graders work extensively with coins, to practice addition of accumulating quantities, trading, and counting by 5s, 10s and 25s. This naturally leads them to deeper understanding of place value to 100 and prepares them to explore the concept of grouping for the first time. Making the connection between skip counting and repeated addition orients the children toward comprehension of the concept of multiplication, and they frequently practice skip counting through 12s.

Second graders construct and deconstruct 2D and 3D shapes in their investigation of geometric patterns, symmetry, area equivalence and fractional parts. They also begin to build array models from shapes, and they extend their study of linear measurement into social studies and science as they create and measure models, pathways, scale drawings and maps. The children similarly extend their analysis of data to all subject areas, with new tools such as Venn diagrams, timelines, using negative information to clarify a category and building theories about the data that they collect. Daily classroom routines include time and calendar math, estimation and prediction, writing equations, skip counting and solving logic problems.

GRADE THREE

In third grade, students continue to strengthen their number line fluency. They classify things that come in groups, discover and predict patterns in the multiplication tables to 12, and model multiplication with rectangular arrays. Constructing and deconstructing arrays helps the children to recognize factor pairs and the relationship between multiplication and division, which prepares them to write and solve story problems involving grouping, accumulating, and partitioning. To parallel this study, third graders explore the effects of halving and doubling the terms in multiplication equations, and they begin extensive work with both the order of operations and an application of the distributive property called “break-apart multiplication.” Third grade geometry combines visual-spatial reasoning with data analysis and linear measurement. The need for standard units is discovered by the children as they collect and analyze measurement data in a variety of non-standard units. Similar data is then recorded and evaluated in English or metric units, with consideration for scale and commonly referenced equivalents. The emphasis in the children’s data interpretation is on making predictions and conjectures that are based on qualities of either the set of data being studied, the manner in which it was collected or both. In two dimensions, third graders compare, combine and measure the areas of shapes in units and half-units. They also perform geometric transformations - slides, flips and turns - to determine congruence.

Addition and subtraction strategies become more sophisticated in third grade. Students learn to manipulate landmark numbers in the hundreds and thousands, and to calculate positive and negative net change. The children use subtraction to cancel addition as a strategy for solving long equations, and net change is also identified on graphs. Third graders use fractions and mixed numbers

to build wholes from fractional parts and to solve sharing problems. The children gain familiarity with equivalent fractions by making exchanges, such as $1/6 + 1/3 = 1/2$. They also recognize the embedded division problem in fraction notation, and use calculators to observe fraction and decimal equivalence. Daily routines include estimation and mental math, creation of equations to represent the date, probability discussion, and thinking flexibly about problem solving by exploring multiple ways to arrive at a numerically correct solution.

GRADE FOUR

Fourth graders focus on developing their number sense in order to deepen their understanding of arithmetic and personalize increasingly elegant problem solving strategies. They work toward fluency with factor pairs and multiples, and learn to identify factors of numbers up to three digits. The children classify prime, composite, and square numbers according to the attributes of their array(s), and they solve complex problems by breaking them into manageable components like familiar multiplication relationships. Fourth graders relate their knowledge of factors to division notation as they gain understanding of how division can represent either sharing or partitioning. The children also learn how to correctly express and label remainders, depending on the situation. Landmark numbers in fourth grade include 10, 100, 1000 and their multiples. Students learn to identify these numbers in the expanded forms of multi-digit multiplication and division problems, and to utilize them in the calculation of partial products and quotients.

Geometry enriches several topics of study throughout the fourth grade year. Array modeling leads students to in-depth study of area and perimeter, and to their study of fractions. The children partition rectangular areas into halves, fourths, eighths, thirds, sixths and twelfths. Using both relative areas and numerical reasoning, they compare and order fractions, including improper fractions, and identify equivalent fractions. Estimation is encouraged when an unfamiliar fraction is encountered. For example, $12/25$ is approximately $1/2$. Fourth graders learn about the sides, vertices and angles of polygons, and how polygons are put together to form solid shapes with faces, corners and edges. Their solid geometry work extends to finding the volume of boxes. In statistics, the students advance from noticing individual features of data to describing the overall shape of the distribution and realizing how that yields usable information. They learn to express what is typical, what kind of landmark the median is, and how to use that information to compare data sets

Daily problem solving routines include mental math and estimation, careful reading and processing of mathematical language, streamlining personalized strategies by framing story problems according to widely applicable guidelines, and simplifying arithmetic by deliberate manipulation of the terms in complex equations.

GRADE FIVE

Fifth grade builds on the foundation laid in earlier grades. The curriculum emphasizes computational competence, cooperative learning, and critical thinking. Students spend the majority of the year studying the structures of both integers and rational numbers. They are also introduced to variable expressions and equations, and they explore two and three dimensional geometry. Early in the year, fifth graders learn whole number theory of factors, multiples, prime and composite numbers and prime factorization. Constructing and deconstructing whole numbers leads them logically both to understanding of common factors and multiples and to their study of rational numbers. Students first identify, construct and order benchmark fractions and their equivalents by solving sharing and related rate problems. These benchmark fractions become their bases of comparison for positive and negative rational numbers in various forms. Building rate tables and calculating unit rates prepare fifth graders to nimbly convert fractions to decimals and percentages by deliberate manipulation of the defined whole. Then, rather than just learning procedural algorithms for fraction and decimal operations, fifth graders investigate realistic scenarios that require them to combine and partition rational numbers thoughtfully. Emphasis is placed on carefully choosing both the appropriate operation and the form of each rational term. Estimation continually reinforces the students' understanding as they answer questions such as: Will the answer be greater or less than the original fraction? Will the sale price be greater or less than half the original price? Are the slices of pizza being pushed together, or cut smaller?

Toward the end of the school year, fifth graders review area and perimeter as "covering and surrounding," respectively. Through estimation, graphing and creative experimentation with orientation and overlay, students develop strategies and formulas for calculating the areas of triangles, parallelograms and polygons. This study extends to calculating surface area, and relating volume to "filling" a 3-dimensional shape. Throughout the school year, fifth graders work collaboratively to identify and write equivalent expressions and solve complex problems relevant to their classroom studies, both of which prepare them for middle school math and beyond.

MUSIC

Students are exposed to music in a variety of ways, including singing, playing musical instruments (woodwind, brass, strings, percussion, recorders, Orff, and other classroom instruments), performing, movement, reading notation, composing, improvising, music technology, and other concepts.

GRADES KINDERGARTEN THROUGH THREE

The music program in Grades Kindergarten through Third Grade focuses on building strong skills emphasizing beat, rhythm and pitch. Through movement activities and instrumental and vocal ensembles the students learn to feel and respond to beat, tempo, and melody. The introduction of the recorder in Second Grade facilitates the reading of standard music notation. The recorder then becomes an integral part of subsequent ensembles. A stringed instrument, the mountain dulcimer, is introduced in the Third Grade. After each child constructs their instrument, solfege is used as the means of playing melody and chords. Much of the material used in Third Grade ties directly to their study of the United States.

All students participate in the Holiday Concert in December and each class presents a year-end review program for their own parents at the end of May.

GRADES FOUR AND FIVE

In Grades Four and Five, General Music includes concepts of reading music, singing, playing classroom instruments (piano, percussion, choir chimes, recorders), music appreciation, music technology, physics of music, and movement. Field trips to major performance venues are included each year.

Chorus begins in Grade Four and continues through Grade Five. All students in these grades sing in Chorus, where concepts of tone production, blend, balance, head voice, and intonation are explored. Choruses perform at seasonal concerts and often sing in English as well as other languages.

The Band and Strings program begin in Grade Four and offer instruction in woodwinds, brass, percussion, and string instruments. In Grade Five, students may also elect to participate in the Handbell Choir.

PHYSICAL EDUCATION

The Physical Education program follows a carefully defined curriculum that encourages greater understanding of the importance of promoting wholesome physical development. The program is designed to meet the needs of the individual child and to create positive experiences that will enhance the child's ability to develop his or her body to the fullest. At the same time, it provides the child with the tools necessary to make healthy decisions about exercise and future athletic and recreational activities. All students receive equal opportunities to reach their potential and are encouraged to progress at individual rates. Our primary goal is to provide maximum opportunity for children to enjoy physical activity and thus realize that it is a desirable and worthwhile endeavor, one they will want to continue throughout their lives.

KINDERGARTEN AND GRADES ONE AND TWO

In Kindergarten and Grades One and Two, the P.E. curriculum is a balanced design that enhances perceptual/motor skills and develops basic movements in response to varying space, time, force, and flow. Students participate in activities that improve balance, endurance, strength, flexibility, and agility. They also experience movement through creative games, traditional games, and rhythms. Appropriate social behaviors are developed by working independently and with others during planned physical activities.

GRADES THREE THROUGH FIVE

In Grades Three through Five, a more specific program of skills development is followed. Students practice and become more proficient in lead-up skills to team sports and participate in a full range of physical activities such as rhythms/dance, physical fitness, basic movement skills, and lifetime sports. Social development continues to be emphasized, as is a positive self-image. Students learn to evaluate their own capabilities and to establish realistic personal goals.

READING, WRITING, LANGUAGE ARTS

The goal of our balanced literacy program is to develop engaged, independent readers and writers who can acquire and evaluate information and express ideas with clarity and eloquence. The program emphasizes the relationship between reading and writing and the developmental nature of each. In the primary grades, students learn the connection between real experiences and the written form. Picture books, big books, leveled readers, nonfiction books, poetry, and anthologies are used to teach the basic skills of reading and comprehension. As students become fluent readers, novels, literature, and textbooks are used to further develop comprehension and critical thinking skills.

Written communication is valued from Kindergarten onward. Students are introduced to the structures and expectations of writing in a variety of genres. Writing offers children a marvelous opportunity to communicate personal experiences and thoughts. They learn to write clearly and logically, and as they become more adept at using the symbols of the language, they focus on the acquisition of spelling, grammar, and editing

skills. Children are immersed in different forms of writing such as personal narrative, memoir, poetry, nonfiction, essays, and reports. A core curriculum of word study, taught in Kindergarten through Grade Five, focuses on phonemic awareness, phonics, common word structures in the English language, and vocabulary, as well as use of high frequency words.

KINDERGARTEN

The goal of instruction is to immerse students in a print-rich environment that develops oral language skills, phonological awareness, print awareness, vocabulary, fluency, an appreciation and understanding of literature, and a love of reading and writing. To attain these goals, Kindergarten students use multisensory, multileveled activities for learning sound-symbol relationships and phonetic principles. They learn that stories have a beginning, middle, and end and develop vocabulary to describe people, places, and events. Students develop beginning reading skills through a variety of activities, such as rhymes, songs, morning messages, poetry, big books, guided reading, and read-alouds. Journal writing begins in the earliest days of Kindergarten. Students use drawings, labels, and developmental spelling to express complex ideas. They become authors and illustrators as they create books during the writer's workshop program. By sharing their books with classmates, children learn to expand, clarify, refine, and edit their writing.

GRADE ONE

In Grade One, students continue to be immersed in a print-rich environment to develop oral language skills, phonetic skills, vocabulary, fluency, expression, comprehension, and an awareness of print materials as sources of information and enjoyment. Picture books, leveled readers, nonfiction books, poetry, and author studies are used to teach vocabulary and comprehension skills. Shared reading activities are used to teach and reinforce the phonetic principles and word families. Guided reading, individual book baskets, and book clubs enhance the reading program by meeting the needs of individual students as they develop reading fluency and strategies to read new words. Writing skills are developed with student journals, daily writing tasks, word walls, and writer's workshop. The writing process is expanded in writer's workshop through mini-lessons. Students continue to edit and revise their work, and children publish and celebrate their works throughout the year.

GRADE TWO

Reading, writing, speaking, and listening continue to be developed and refined in Grade Two. The reading emphasis shifts from mastering decoding skills to developing reading fluency and comprehension. Students develop a love of literature and reading while learning, using, and mastering basic strategies necessary for reading and writing. Teacher-selected trade books are used for thematic studies, often integrated with social studies or science. Student-selected books are used to develop reading fluency and comprehension. Students gain deeper understanding of texts as they respond to critical questions in both oral and written form. Free-writing and journal-writing exercises further develop vocabulary and communication skills. Reading and writing poetry and beginning research skills provide opportunities for Second Graders to make presentations to small and large groups. Students find their voice through the writing of personal memoirs in a writing workshop setting. Students revise and proofread their work and apply simple grammatical principles to writing.

GRADES THREE & FOUR

Reading instruction in Grades Three and Four assumes new dimensions, resulting from the increasing maturity of students and the increasingly more complex and varied reading materials to which they are exposed. The program continues to stress the skills that lead to independence in reading. More detailed and broader discussion questions involving inferential thinking give students greater opportunity to expand their comprehension and vocabulary. Direct instruction in a variety of specific skills such as sequencing, noting details, drawing conclusions, and following directions gives students further opportunities to improve their level of comprehension. Making inferences, understanding literal and implied meanings, thinking critically, and evaluating meanings are important comprehension skills taught in these middle elementary grades. Theme, symbol, and character development are explored. In addition, students learn to use reference and informational materials as they expand their knowledge in various curriculum areas. Special emphasis is given to vocabulary development and use of dictionaries and thesauruses for word meaning and pronunciation. Important study skills are introduced, such as skimming

and scanning for information, identifying the main idea and supporting details, and locating answers. Students also develop research skills by gathering and using information from print and multimedia sources. Teachers integrate independent reading, class novels, and trade books that focus on the higher level skills required at this time. Book selections develop values and the understanding of cultural differences, which are explored through written and oral responses. Students keep reading journals and writing folders. They plan, draft, revise, and edit written work in the form of narrative essays, poetry, reports, persuasive pieces, and creative writing. As students transition from Grade Three to Grade Four, their literacy skills improve in terms of degree of depth as well as independence. Organizational demands also increase as a result of Grade Four's Departmental structure.

GRADE FIVE

In Grade Five, grammar, usage, writing, reading, and study skills are incorporated into the language arts program. Students learn critical thinking skills by analyzing and evaluating texts. Students read for deep comprehension and to acquire information to answer questions. They support opinions, make predictions, use inference to draw conclusions, and compare and contrast relationships. Students learn to distinguish between main idea and supporting details while reading nonfiction passages and current events publications. The elements of literature are presented through novels and short stories. As part of their language arts curriculum, children participate in an invaluable study skills course which is particularly helpful as preparation for middle school. Organizational skills and study habits are stressed. Class discussion and note-taking skills are modeled and refined. Students experience one additional writing class per six day cycle during which they put to use grammar and vocabulary skills from language arts classwork while crafting expository and creative pieces. Character analysis essays are planned, guided, and revised in class using Google Drive. Students are held accountable for thesis statements, organized evidence, appropriate transitions, and formal essay mechanics while being introduced to page citation for text quotations. They develop awareness of metaphorical as well as literal meanings in mentor texts from diverse literary voices and build imagery into their own poetry and creative fiction.

SCIENCE

Science is the exploration of the universe for the purpose of seeking orderly, testable explanations of objects and events. The Pingry School elementary science program offers a balance of hands-on experiences and science content. Each year, students study topics in three major areas: life science, earth science, and physical science. The processes of observation, investigation, collection of relevant data, discussion and confirmation of findings, and experimentation are emphasized throughout the program.

KINDERGARTEN

In Kindergarten, students begin using some of the basic techniques of scientists. They actively collect samples of the environment surrounding them and classify these and other samples by noting different characteristics and using all their senses. They are introduced to the importance of recycling and the role it plays in their school community. Students study the difference between living and non-living things and learn about buoyancy from objects that float and sink. Students observe changes around them by looking at seasons and weather, and patterns in nature are introduced. They learn about animal adaptations, hibernation and migration based on the seasons. They are introduced to the life cycle of plants and learn about seed identification. They plant marigold seeds, grow them under the lights during the winter and transplant them into the community kitchen garden in the spring. In physical science, the three states of matter are introduced.

GRADE ONE

In Grade One, life science includes learning about the parts of plants and the ways plants and animals depend on each other. They learn about insects and the role they play in sustainable gardening and composting. They learn about owls, their unique bodies and their habitats. This unit is taught in conjunction with the art department, where the students use their diagrams of owls to make clay owls, which serve as garden art in our community kitchen garden. Students help to maintain our community garden as well as growing and harvesting fruits, herbs and vegetables. In earth science, students study the structure of the earth by observing what makes up various geographic features. They learn about the continent of Antarctica, the different kinds of ice that form and the weather and extreme temperatures that make this continent unique. Students learn about the animals that live in Antarctica and the adaptations that help them survive. In physical science, the three states of matter are explored through hands on labs where the scientific process is introduced.

GRADE TWO

In Grade Two, students examine the structure and function of the parts of different kinds of plants and animals. They learn that all living things have structures by which they can be classified as mammals, birds, reptiles, amphibians, or fish. Students explore how living things grow and change. Animal growth and development are studied by looking at the stages of insect growth using mealworms. Students learn why animals become extinct, with emphasis on fossils and what paleontologists do. Dinosaurs and other prehistoric plants and animals are studied in detail. Arctic animal adaptations are studied in conjunction with an Alaska unit. In earth science, students study what makes up the structure of the earth by observing various geographic features. They learn about weathering, erosion, soil formation and the greenhouse effect on the polar ice caps. They learn about the water cycle and how air and water create the earth's weather and climate. In physical science, students explore the way heat changes matter. Magnetic force is introduced. Students observe that magnets have poles that attract and repel each other.

GRADE THREE

In Grade Three life science, plant and animal environments are studied by looking at the characteristics that make life possible in ponds, oceans, deserts, and forests. Students learn about producers, consumers and decomposers and the ways living things interact with the environment. In earth science, students study the changes in the earth's surface due to weathering, erosion and pollution. Students are introduced to the Periodic Table of Elements and the role of certain elements in soil amendment and sustainable gardening in our community kitchen garden. Students use their mathematical skills to make spacing grids on the raised beds in the garden based on plant research. They also grow plants from seedlings and transplant them into the kitchen garden in the spring. They learn about recycling and their responsibility to the community and the environment. In physical science, force, motion, and energy are studied along with gravity and friction.

GRADE FOUR

The Fourth Grade begins the year with a unit on geology. The layers of the Earth, density, plate tectonics, convection currents and continental drift are covered. Students also study types of volcanoes, earthquakes, stress and faults in conjunction with their knowledge of the earth's structure and plate tectonics.

A unit on cells introduces students to the basics structure and functions of plant and animal cells. Students study various multicellular and unicellular organisms as they learn the characteristics of all living organisms. The differences between prokaryotes and eukaryotes are also discussed. The use of a compound microscope is introduced as students get a look inside cells. Basic cell functions such as photosynthesis and cellular respiration are stressed. The unit also introduces and emphasizes the importance of DNA, the genetic material in all organisms needed to function and reproduce.

The Fourth Grade year ends with the study of electricity and magnetism. In this unit the Fourth Grade focuses on the parts of an atom and how positive and negative charges cause the movement of electrical current. Students study the parts of a circuit such as batteries, resistors, conductors, insulators, and electrical devices as they learn the differences between simple series circuits and more complex parallel circuits. Static electricity, electric current, and the storage of electrical energy are also studied. The close relationship of electricity and magnetism is emphasized. Uses of electrical energy and the conversion of electricity into other forms of energy is stressed throughout the unit.

GRADE FIVE

Fifth Grade science begins with a unit on chemistry. Density and the physical and chemical properties of matter are discussed. The structure of an atom is studied in depth as students learn how to read and use the Periodic Table of Elements as they gain a basic understanding of elements, molecules, ions and isotopes. The basics of chemical bonding are introduced as students learn about ionic and covalent bonds. Chemical reactions are explored as students learn the differences between exothermic and endothermic chemical reactions to wrap up the unit.

In the life sciences, students immediately follow their chemistry unit with one covering the human body. The unit covers several different organ systems and ways in which they interact. Basic anatomy and physiology are a key focus of every organ system in this unit. Each organ system is explored beginning at the cellular level and expanding to include the functioning of the entire organism. The interdependence of all parts of the body is stressed, as is the importance of the relationship between structure and function. Important cellular processes first covered in Fourth Grade are reinforced and new concepts such as diffusion and gas exchange are introduced. Some topics include the respiratory system, circulatory system, blood flow through the heart, bones, joints, muscles, nerves and nerve signals, parts of a neuron, and the digestive system.

In the spring, the Fifth Grade focuses on earth science with a unit on the atmosphere and weather. Students learn about the composition and layers of the earth's atmosphere, the water cycle, and the flow of energy from one part of the biosphere to another. Students learn about basic meteorology and the relationship between air pressure, density and altitude. They also study the water cycle, ozone layer, greenhouse effect, types of air pollution, weather, wind, clouds and various types of precipitation.

SOCIAL STUDIES

The social studies program includes the study of human relationships, both past and present, and draws its subject matter from geography, history, anthropology, economics, political science, and social psychology. As the program is developed through the grades, the child is made aware of the larger world. The social studies program is based upon the assumption that a democratic society depends upon sensitive and responsive citizens who can make rational decisions consistent with basic democratic values. The classroom provides the environment in which students can inquire into and evaluate questions which deal with social behavior through a wide variety of historical and social events.

KINDERGARTEN

In Kindergarten, Social Studies begins with a unit on families. The students learn about each other and get to know each other. Students also learn that there are all types of families. Students read books about different kinds of families and create their own class family book. They expand their study of families to animal families, learning collective nouns of animal groups, names of animal young, and their parents. They culminate this study with a trip to Turtleback Zoo. In addition, students learn about the various cultures, cultural celebrations, and holidays within the classroom, with the active participation of their parents. They also cover a variety of other topics such as famous people, historical events, geography, current events, and maps. Students develop critical thinking skills by gathering data through polls, interviews, and research, tracing commonalities and differences, identifying problems at an age appropriate level, and respecting the arguments of others. They broaden their understanding of their place in the world through the use of creative dramatics, celebrations, art projects, poetry, books, films, videos, and field trips. The students are introduced to sign language through music and poetry. Particular emphasis is placed on fostering self-awareness, a positive self-image, socialization skills, and a sense of social justice.

GRADE ONE

In Grade One, the children learn about different communities, starting with the school community, then branching out locally and finally globally. Social Studies is integrated into the total curriculum as well as in several special classes such as art, music, computer science, and science. Basic geography and map reading skills are taught throughout the year. Informational reading is introduced in first grade when the students begin their research about penguins and Antarctica. The children learn about the continent of Antarctica and the 17 various species of penguins. The next unit of study is learning about Africa and its rich tradition of storytelling. They will compare and contrast the characters in many African stories. Later in the year, while learning about the

continent of Australia, they will implement their research skills using the technological databases made available to them on their individual i-Pads. Character education based on inclusiveness is reinforced throughout the year as the students develop acceptance and appreciation of the different communities. A culminating trip to the zoo is taken late in the year, where the children view animals and use their map skills to find and answer riddles.

GRADE TWO

In Grade Two, social studies concepts and critical thinking skills are integrated with the language arts, science, math, and arts programs in thematic units. Using multi-level online and text resources about prehistoric times, students become factual experts on dinosaurs. They acquire literacy skills of research and guided note-taking, a sense of significance and sequence in ordering factual information, and the conventions of first person narratives. Students circulate independently through stations that require the science and math skills of measurement and scale drawings. During the unit on traditional Native Alaskan ways of life, they study geography (including the route of the Iditarod sled dog race), practice map skills, create murals and clay sculptures, and absorb concepts of diversity, compassion, and friendship through Alaskan stories and myths. They analyze the effect different biomes have on the development of culture by native communities and compare and contrast their own lives to those of children who live in northern climates. Students further their capacity for empathy and an awareness of social justice with an in-depth examination of people who fought to make a difference, interacting with their ideas and lives through journal responses and first person narratives. Students engage in an age appropriate examination of the civil rights movement. They read about people with disabilities and the elderly. During the final trimester, students extend their informational reading and writing skills by researching women from diverse cultures, writing factual reports, and sharing them with the whole school in a formal oral presentation. Current events are discussed in conjunction with reading *Time Magazine for Kids*.

GRADE THREE

In Grade Three the program focuses on the geography of the United States. Emphasis is placed on the link between the geography of each of the six regions of our nation and their historical, economic, and social development. Literature, both fiction and nonfiction, provides a rich source of material for this program, while traditional textbooks, maps, globes, and atlases are used as reference tools. Films, customized iPad apps, slide and video presentations, and field trips provide additional opportunities for enrichment of basic course material.

An additional key component of the Third Grade social studies program is the research, preparation, and presentation of a detailed state report by each student. Students select a state, contact its government leaders or agencies, and utilize materials from our media center and the Internet. The work is completed in school and at home with the assistance of the homeroom teacher, Academic Technology Facilitator, and librarians. Literacy skills such as arranging events in chronological order, comparing and contrasting events, drawing conclusions from data, identifying cause and effect, and providing evidence for assertions are explicitly taught and implemented in social studies assignments. Assessment, formal and informal, is supported by ongoing study skills lessons and carried out through tests and quizzes as well as through original map work, group projects, and reports.

GRADE FOUR

In Grade Four, the students focus on the study of New Jersey. All aspects of our state's history, geography, and physical and cultural environments are studied. Independent reports, primary source material, novels, poetry, field trips, debates, and role-playing are used to trace New Jersey's cultural development from the Paleo-Indians to current times. Research and informational reading and writing skills are explicitly taught as well as the technique of providing factual support for persuasive essay assertions. Particular emphasis is placed on the Lenape culture, the European colonists, the waves of immigration, and the impact of each group on the state's history. These cultures are studied in relation to their use of New Jersey's environmental resources and their adaptation to changing circumstances.

GRADE FIVE

The course builds upon concepts and skills developed through earlier years. Students begin with the study of ancient Egypt. They delve into the treasures of the ancient tombs, the personalities and reigns of the pharaohs, the architectural feats of the pyramids, the advances in science and medicine, the roles of religion and myth, and the artistic accomplishments of the Egyptians. Continuing into the Greek and Roman empires, the students develop insights into the daily lives of these peoples including their governments, wars, art, literature, science, math, philosophy, religions, and ultimate legacies. Important individuals who helped to shape the events of world history are also studied. Technology is integrated through research, use of the Internet, and virtual tours of historic sites and museums. A two-week course on the Metropolitan Museum of Art is followed by a field trip to the museum.

A variety of media and primary source material is used as well as a study of current events to connect today's world with the study of ancient cultures.

TECHNOLOGY

Students in the Lower School are provided with opportunities to explore, experience, and understand various forms of technology as a tool to develop critical thinking skills. From kindergarten through grade five, students use iPads, Chromebooks, and interactive white boards as part of a technology/computer science curriculum within the classroom. Students use technology for research, electronic presentations, word processing, spreadsheets, and basic programming. With every child having access to either an iPad or Chromebook, technology is an integral part of their everyday academic experience.

GRADES K-TWO

Technology is woven throughout the classroom curriculum. Numerous technologies expose students to the iPad as a learning tool. Classroom teachers and the Academic Technology Facilitator introduce various applications through group lessons before the students explore and work independently as well as in partnerships. Students use various writing apps on the iPad for final drafts of written pieces and word study work. Students also use developmentally appropriate apps, search engines, and subscription databases for research projects. The iPad is used as a presentation device for drawings created in various grade appropriate drawing apps which are then incorporated into books and slideshows for differentiated instruction in all areas of the curriculum. Simple programming is introduced in these grades.

GRADE THREE

Formal keyboarding is introduced, using a website on the Chromebooks. Children work with their classroom teacher and the Academic Technology Facilitator to research topics related to classroom learning. Students use developmentally appropriate apps, search engines, and subscription databases for research projects. They also work with numerous apps that incorporate and reinforce critical thinking skills and are directly related to their work in the classroom. During the second semester, emphasis is placed on researching topics related to the study of the United States using online databases such as the World Book and other internet sites. Using this information, the children use a multimedia application, such as Explain Everything, Book Creator, or iMovie to create presentations that showcase their research and hand-drawn pictures. Students use various writing apps on the iPad for final drafts of writing pieces such as poems, simple essays, fiction writing, and memoir.

GRADE FOUR

Formal keyboarding is reinforced throughout the school year. Students work with their teacher and the Academic Technology Facilitator to utilize research skills taught within their academic classrooms. They use Google Drive to create presentations that connect with their study of New Jersey, immigration, and explorers. Children conceptualize, plan, and manage individual and group learning projects using digital planning tool apps on the Chromebook. They continue to use these skills through a variety of word-processing activities such as the creation of an immigration experience. Students create a multimedia presentation, using GoAnimate and Google Presentation, as a culminating project for their immigration unit.

GRADE FIVE

Technology, through the use of Google Apps for Education, a suite of productivity tools for classroom collaboration, is used to explore the content material and develop critical thinking and collaborative skills in Social Studies, English and Science units. Students also learn file management and acceptable use guidelines for on-line and shared work. They work to refine their internet search skills through the use of approved data bases. Students also work with numerous software applications, such as Pearson's Math Excel, Study Stack, and Typing Club to reinforce academic skills.

Some examples of technology use in grade five include the creation of Google Presentations, an archeological digest, a newspaper headline project, a digital postcard, and a digital presentation of scientific advancements. Students also create poems, essays, original myths, and other documents in Google Drive that can be shared with teachers and classmates as an on line revision conversation.

VISUAL ARTS

The Lower School art program is designed for young students to discover, explore, and expand their artistic identities. Art lessons are child-centered and have multiple entry points for students with varying ranges of experience and skill. The program focuses on skill development, synthesizes process and product, and encourages risk-taking and self-expression. Art allows students to make connections with their studies, notice patterns, blend content, and create ways to solve problems. The program aims to broaden and deepen students' artistic knowledge and ability while they experience the joy and meaning found in the process of being a creative, artistic individual.

To accomplish these goals, the program focuses on several areas of artistic development. They include the development of sensory perception, hands-on and cognitive skill, an introduction to the fundamental elements and principles of art and design, visual awareness of art forms both multicultural and historical, nonverbal communication and self-expression, and the development of a verbal language to discuss art and make artistic judgments.

Students thrive in an environment where they are comfortable trying something new and making their work unique; each class meeting is designed to offer kinesthetic opportunities to do so. Projects tap into and reinforce each child's innate abilities to imagine, design, and create. Opportunities include exposing students to a vast array of 2-D and 3-D art media and techniques, such as drawing, painting, printmaking, collage, assemblage, casting, woodworking, clayworking, and digital photography. Class time and projects also expose students to a wide range of artists and their art forms.

Students look at art in a variety of formats: children's literature, art reference books and DVDs, Internet images, museum and gallery trips, and demonstrations by visiting artists. Students learn to look closely and make observations about what they see. This not only inspires their imagination, sense of experimentation, and vocabulary of art fundamentals, but also stimulates and exercises cognitive skills, such as the ability to visualize, compare, recall, analyze, interpret, predict, summarize, and synthesize. Students participate in class discussions and share ideas and views about art. They learn that their own creations have value as they are put on view in the classroom and in the hallways for the community at large to experience and interpret.

The guiding philosophy of our program is that art permeates all of life and is an essential learning discipline vital to the construction and communication of meaning.

WORLD LANGUAGES

The ability to communicate in more than one language has long been recognized as a tool for enhancing student achievement. Beginning in the early school years, it is critical for today's children to develop communicative and linguistic proficiency in English and other languages in order to understand and appreciate the cultural diversity of our rapidly developing global community. Spanish is the base foreign language at the Short Hills campus.

GRADES KINDERGARTEN THROUGH THREE

In the primary Grades Kindergarten through Three, the Communicative Approach to learning a second language through listening and speaking, the Whole Language Approach, and the Total Response Method highlight the program. These approaches are complimented by the Symtalk Method of teaching students the fundamentals of the language by utilizing word pictures to enhance memorization of vocabulary. This expedites communication proficiency in all skill levels early in the learning process.

GRADE FOUR

Although the Pingry Curriculum Guide for Grade 4 is exactly the same as Kindergarten through Three, the goal at the Grade 4 level is for the students to perform at a more advanced level with proficiency in speaking, writing, listening and reading. The textbook, "*De Donde Vienes?*" supports this principle. Also, more memorization of Spanish songs and poems are deployed as mental exercise for greater retention of information learned.

GRADE FIVE

In Grade Five, Spanish becomes a full academic subject and students receive letter grades for the first time, with the exception of new students who may opt for a modified pass/fail grading system. Classes meet more frequently and students experience more real life illustrations to foster success in second-language acquisition. In addition to the primary approaches of activity-based learning, the four skills – reading, writing, speaking and listening, are important components of language comprehension. Level 1A of *Como Te Va* is covered. Assessment of students is based on:

- Class participation
- Daily observations of oral productivity
- Performance on tests and quizzes
- Other written assignments

Linguistic skills acquired in Spanish are a valuable transferable asset to facilitate the study of any other foreign language at the Basking Ridge campus, where students may choose to continue Spanish or start French, German, Latin, or Mandarin.

MIDDLE SCHOOL

PHILOSOPHY OF THE MIDDLE SCHOOL CURRICULUM

In early adolescence, students begin to develop analytical thinking skills. The curriculum in the Middle School has a dual role: the presentation of information and the guiding of the students' critical thinking skills to thoughtful, independent analysis. The curricular content continues to support the liberal arts background that Pingry believes to be an integral part of each student's educational foundation. Using the material in each course, Middle School teachers challenge their students to support opinions with facts and to question the world in which they live. The purpose is to continue the shaping of responsible young people who will contribute to their society.

GRADE 6 CO-CURRICULAR COURSES

Students in Grade 6 Co-Curricular Block experience a carousel of classes intended to engage them in topics and skills that will be vital to young adolescence as well as their life at Pingry. Co-Curricular courses are approximately one half a trimester long.

CULTURAL COMPETENCIES

Cultural Competency is defined as “the knowledge, awareness, and skills that lead to effective interactions with diverse individuals and groups.” Through hands-on activities, discussions, and projects, this course will provide opportunities for students to learn and practice a set of skills that will allow students to be able to answer the question, “How do I get along with people who are different from me?” We hope that this course will help students develop an appreciation for and an understanding of the many cultures represented at Pingry and in our communities beyond school.

FINANCIAL LITERACY

In Financial Literacy, “Generation Y” receives introduction to key concepts such as budgeting, saving, banking, investing, risk, and taxes. The course uses selected articles from financial media sources, online resources, literature from the Federal Reserve System, and samples of actual reports & products. While the goal is not to produce instant portfolio managers, we seek to provide an awareness of financial topics so that students can feel confident of their ability to ask questions and comprehend answers.

EMOTIONAL INTELLIGENCE

The Emotional Intelligence class focuses on social and emotional learning (SEL) and provides students with a foundation of skills for recognizing, understanding, labeling, expressing and regulating emotions. The Emotional Intelligence lessons are designed to develop in students a core set of skills that help them to be more engaged and successful in learning, have mutually supportive relationships, and make healthy decisions. The curriculum incorporates activities such as self-reflection, analysis of academic material and current events, artistic expression, family interactions and classroom discussions.

RESEARCH SKILLS

The Research Skills Class offers a unique opportunity for students to learn valuable information literacy skills and directly apply them to a model research project. Each session students choose a topic and then utilize library resources, web sites, and information systems to complete assignments. Research is structured around the steps of the Big6 model to give students an understanding of the research process.

RHETORIC/PUBLIC SPEAKING

Rhetoric has been a part of Western education since it was formalized as a skill by the Greek philosopher, Aristotle (384 BCE – 322 BCE). Rhetoric is, formally, the art of written or spoken communication. In this course, we focus more on the skill of spoken communication.

Student speakers attempt to motivate, persuade, or inform using the categories outlined by Aristotle: Logos (λόγος), which we will translate as “reason”; Pathos (πάθος), emotions, and Ethos (ἦθος), meaning guiding beliefs or ideals. Individually, students practice vocal projection, enunciation, meaningful hand gestures, and poise.

SERVICE LEARNING

In Service Learning, students investigate issues in the community both locally and globally. The course gives students a chance to learn about different needs in a community and, they participate in a variety of activities that will reinforce the importance of Service Learning and Community Service. Students also have the opportunity to join in a community service activity. Throughout the course, students reflect on service in discussions and in journals.

ROBOTICS

The robotics course offers students hands-on experience with designing, building, and programming modern robots. Using the Lego Mindstorm EV3 robotics kits, students explore ways in which robots can sense data from their environment and be programmed to make decisions based on that data. Students will develop critical thinking and problem solving skills through regular challenge projects, and advanced or highly interested students can explore more difficult projects.

COMPUTER SCIENCE

The Computer Science curriculum seeks to give students a breadth of experience that will prepare them for future study in the discipline, as well as develop skills that are relevant to other areas of study. Computer Science projects are immersive and allow students to work with both hardware and software to find creative solutions to problems.

COMPUTATIONAL THINKING AND DESIGN - 8 (#09445)

This trimester course exposes students to both the technical and creative aspects of computer science through a sequence of hands-on projects. Project topics will include web development, physical computing, video game design, and, time permitting, big data analysis. As students develop their own original websites, they will learn how the Internet and world wide web work, and learn key principles of computer security. Next, students will learn about computer hardware and how to program a device they built themselves. Finally, each student group will design and program their own video game to learn about event-based programming. If time permits, students will investigate the role of big data in our society and learn some techniques for data processing.

DRAMA

The focus of all three years of Drama is the development of the individual. Using the categories set forth by Brian Way in his seminal work *Development through Drama*, each year the Drama classes will provide opportunities for growth in concentration, sensory awareness, imagination, physical self, speech, emotion, and intellect. The central concerns are first to help each individual discover his or her own resources and then to move on to explore the individual's environment, which demands a conscious relationship with others who inhabit it. Since the primary concerns of drama match the natural development of a student in the passage from childhood into adolescence, this program is an essential Middle School art experience.

DRAMA 6: THE ART OF CLOWNING - CREATIVE MOVEMENT FOR THE STAGE (#10305)

The Sixth Grade Art of Clowning course focuses the actor's range of motions through clowning exercises. This movement-based training helps develop a range of physical choices that give detail and clarity to the actor's work. The Art of Clowning also gives students a foundation to explore the expressiveness of their own bodies within their real lives. Additionally, the students gain confidence in nonverbal communication, which will prove valuable in real-life situations.

Mindful awareness practices such as listening, sitting still and watching the breath, walking with awareness, moving mindfully, and skillful relaxation are taught in the Middle School Drama classes starting in the sixth grade. These practices draw attention and awareness to a student's current experience just as it is, without trying to change, improve, or fix anything. By noticing what is going on moment-to-moment, students develop more perspective as to their own feelings and thoughts. From there, they learn to develop empathy and a capacity to respond to others which is the job of the actor--to imagine what it is like to walk in someone else's shoes. By creating time and space in Drama class to notice what the students see and feel on the inside, and talk about these feelings, the class becomes a safe space in which to act with more freedom and the students can become an ensemble engaged in collaboration.

DRAMA 7: DEvised THEATER (#10104)

Drama 7 is a required trimester of basic drama. Students will learn how to be an active part of a creative ensemble that "devises" its own piece of drama. The class will collectively choose a topic that the students are interested in exploring dramatically. From there the class will begin a series of different projects, each inspired by some aspect of the topic, in order to generate as much material as possible. These projects may include silent freeze-frame scenes made of tableaux, five-line scenes, group storytelling, songwriting, and short plays inspired by activating questions, interviews, or movement structures. During the last few weeks of the course, the students then put together the most successful of these pieces into a performance. Throughout this entire process, the goal is not only to develop storytelling and performance skills, but also to teach students how to work cooperatively, create a supportive environment, and take risks together. At the end of the course, they will showcase their piece in front of a panel of drama/art teachers and an audience of their peers.

DRAMA 8: THEATER GAMES (#10204)

This course offers an articulated approach to theatrical improvisation in which students practice a wide range of acting techniques in order to "compete" with another group in a series of "games," or dramatic challenges. The ultimate goal of preparing for this competition is the development of the resources that have been the cornerstone of the whole Middle School program: concentration, sensory awareness, imagination, physical self, speech, emotion, and intellect. Improvisation allows for the discovery and exploration of the individual's environment, demanding a sensitivity to the other people who inhabit it. Ethical and character education and global awareness are the by-products of such an engagement.

HEALTH

The health program at Pingry is designed to develop specific skills that we believe are essential in maintaining one's health emotionally, socially, and physically. These skills include decision-making, communication, coping, and enhancing relationships. Students gain practice in applying these skills as various health topics are addressed. At each level, areas relating to sexuality, nutrition, alcohol and drugs, disease, body systems, and personal loss are covered. Information regarding each of these topics is age-appropriate.

HEALTH 7 (#18202)

The Middle School Health curriculum has been designed to help our students understand the physical, mental/emotional, social and spiritual aspects of health, and how they can develop lifestyles to achieve and maintain an adequate level of health. Health 7 is divided into five areas of study: 1) communicable diseases; 2) nutrition and eating disorders; 3) tobacco, alcohol, OTC and prescription drug use; 4) puberty and the anatomies of the male and female reproductive systems and 5) internet safety.

The communicable disease unit will discuss and identify the body's defense system, pathogens, and ways to prevent the spread of infectious diseases.

The nutrition unit will help students to identify the major nutrients that are needed for optimum health. The unit includes information to assist students in making intelligent consumer choices about food labeling and health foods. The eating disorders anorexia and bulimia are also discussed.

The alcohol, tobacco, and drug unit will focus on the social, physical, psychological, and legal aspects of drug abuse. Students will study the ways in which drugs can be both harmful and helpful.

The reproductive systems unit will explain the structures, functions, and distinctive features of the male and female anatomies and the changes that occur during puberty.

The internet safety unit will identify the dangers and benefits associated with social networking sites, and will familiarize students with important rules for keeping information, and themselves, safe while using social networks.

Throughout the course students will demonstrate the ability to use decision-making skills, will learn to assume responsibility for their own personal health, and will recognize and avoid risk-taking behaviors.

HEALTH 8 (#18204)

The Middle School Health curriculum has been designed to help our students understand the physical, mental/emotional, social and spiritual aspects of health, and how they can develop lifestyles to achieve and maintain an adequate level of health. Health 8 is divided into four areas of study: 1) reproductive systems, menstruation, and pregnancy; 2) sexually transmitted diseases and HIV/AIDS; 3) sexual assault; and 4) illegal drugs.

The reproductive system unit will provide a review of the reproductive organs, as well as information about pregnancy and the menstrual cycle.

The STD and HIV unit will cover factual information about STD's and HIV/AIDS, as well as decision-making as it relates to the spread of sexually transmitted diseases.

The sexual assault unit will prepare students to identify date and acquaintance rape, sexual harassment, sexting, and relationship abuse. The role of alcohol and drugs in sexual assaults will also be discussed.

The illegal drug unit will focus on the effects that drugs have on the brain, and the process of addiction and recovery. The effects of illegal drugs (such as methamphetamine and Ecstasy) will be covered. Students will also practice using resistance skills to avoid drug use.

Throughout the course students will demonstrate the ability to use decision-making skills, will learn to assume responsibility for their own personal health, and will recognize and avoid risk-taking behaviors.

HUMANITIES

The Middle School Humanities program functions as a transition between the world of childhood and the adult world. We guide students through this transition with lessons and student-centered investigations in an intellectually safe atmosphere. The program fosters deep engagement and builds toward higher-level thinking, using cumulative assessments in the form of written work, performances, and applications of new knowledge and skills.

HISTORY 6 (#11004) **ENGLISH 6 (#15004)**

Grade Six Humanities explores how various societies, each with its own traditions, beliefs, and values, share commonalities with other cultures around the world. One of our primary goals is finding ways of associating this theme with the personal experiences of the Sixth Graders, who are bringing a diverse range of experiences, talents, and backgrounds to form a new community at Pingry.

In Grade Six History, our journey will begin with an interdisciplinary unit of three case studies of civilizations before 1500: ancient Mali, India, and China. Next, our travels will lead us through medieval Europe, the Renaissance, the age of exploration, and the scientific revolution. We will end with a study of global exchanges and encounters that left a lasting impact on the world.

Students will be exposed to several assessments that will both help them strengthen their critical reading, thinking, and writing skills and provide the sense of individual exploration and ownership that is the essence of the Middle School experience. These assessments will also provide opportunities to begin learning formal research skills, including the proper use of in-text citations, electronic note cards, and a Works Cited page.

In English, along with vocabulary and grammar study, students will gain an appreciation of the wide range of social and ethnic voices of various cultures that unite readers in the human experience. This will be accomplished through an exploration of different genres: heroic myths, short stories, poems, plays, and novellas. (Some units will be interdisciplinary in nature; others will be discretely literary.) Students will learn to apply a wide variety of strategies to comprehend and analyze texts. Especially significant will be the introduction of the five-paragraph essay. Thus, students will learn to contribute as reflective, creative, and respectful members of a literarily, socially, and historically aware community.

HISTORY 7 (#11104) **ENGLISH 7 (#15104)**

Form I Humanities expands the Grade Six program in two ways. Academically, it continues the thread exploring how diverse influences coalesce into unified cultures. Developmentally, the program draws parallels between communities in the world at large and the Middle School community here at Pingry. The goal is to teach Middle School students to identify and build on their own talents and potential, and to value those of their peers.

In History, the children learn about the transformation of community through the study of two cultures: the United States in the 19th century and China in the 20th. The primary focus is on the foundation events of each country: the history, the myths, and the inevitable conflicts, both internal and external. Questions will be posed, including "How do you build a community?," "How does identity change?," and "How is loyalty defined?" Through the exploration of these and other questions, students are exposed to issues of moral choice, justice, and power. In addition, we focus on practicing coherent and logical writing, developing research skills, and understanding graphic information such as that found in maps, tables, and charts.

In English, students will explore literature that focuses on defining and integrating a community. The literature includes plays and novels that provide a broad range of social perspectives dealing with oppression, racism, and injustice in the world. We stress careful reading and insightful thinking so students can express themselves with clarity and precision. Through writing, students learn to articulate ideas in a more sophisticated five-paragraph analytical essay.

**HISTORY 8 (#11205)
ENGLISH 8 (#15204)**

Form II Humanities explores the theme of a mature community and global leadership. Students will analyze how the United States exercised power and leadership in the global community in the 20th century, how the nation addressed its troubled racial history, and how American society and culture were transformed by the upheaval of the 1960s and 1970s. As America emerges as the most powerful and influential nation in the world, the Eighth Graders emerge as leaders of the Pingry Middle School community.

In History, students study the Great Depression, World War II, the Cold War, the civil rights movement, the Vietnam War, the counterculture, and Watergate. The goal is to make students more interested in and knowledgeable about the contemporary world.

In English, students continue to examine the American journey and the themes of power and leadership in the 20th century. They explore connections between representative literature and history. Students continue their academic development in three main areas: reading, composition, and grammar. Students will learn the literary genres by reading short stories; modern novels; lyric, dramatic, and narrative poetry; modern drama; and autobiographies.

MATHEMATICS

The Middle School Math Program is designed to develop students' appreciation of problem solving through the exploration and application of mathematical concepts. Through a collaborative learning environment, students are encouraged to drive their own learning while reinforcing the skills and number sense developed in earlier grades. Math offerings introduce students to more symbolic and graphical representations of mathematics while developing critical thinking skills. Throughout the curriculum, students will be introduced to topics in pre-algebra, algebra, geometry, probability and statistics.

MATH 1 **(#13127)**

This course is designed to engage students in learning mathematical concepts through collaboration and self-discovery. Topics to be covered include: integers, fractions, decimals, mixed numbers, percentages, and their related applications to real world problems. Equation solving, as a main thread, will be woven throughout the course to create connections to algebra. Ratios, rates, and proportions will be emphasized. Graphing, data analysis, and probability will be introduced. Geometry concepts will include angles, area, circumference, perimeter, volume, and surface area.

MATH 2 **(#13128)**

This course will build off of the framework of Math 1 and add higher levels of mathematics in a collaborative learning environment focused on self-discovery and group sharing. Real world connections to functions and problem solving will be emphasized throughout the course. A large portion of the course will focus on early algebra including inequalities, equation solving, interpreting graphs, exponents, polynomials operations, factoring, systems of equations, and radicals. Geometry topics will cover volume and surface area of three-dimensional figures as well as early concepts with angles and similarity. Students will explore probability and expected value as well as work with bivariate data, sampling and inference between two populations.

MATH 3x **(#13131)**

Math 3x is a continuation of the Middle School mathematics curriculum designed to prepare students for the Upper School mathematics program. By individual investigation and group collaboration, students will delve into such topics as functions, rational expressions, rational equations, and quadratics. The concepts of factoring, systems of equations, and radicals will be further explored. Real world applications are presented within the course content. Geometry concepts will include an introduction to congruence and further analysis of similarity. The course will expand upon the previous study of volume and surface area of three-dimensional figures. Probability will be further developed, including probability models, conditional probability and an introduction to counting principles.

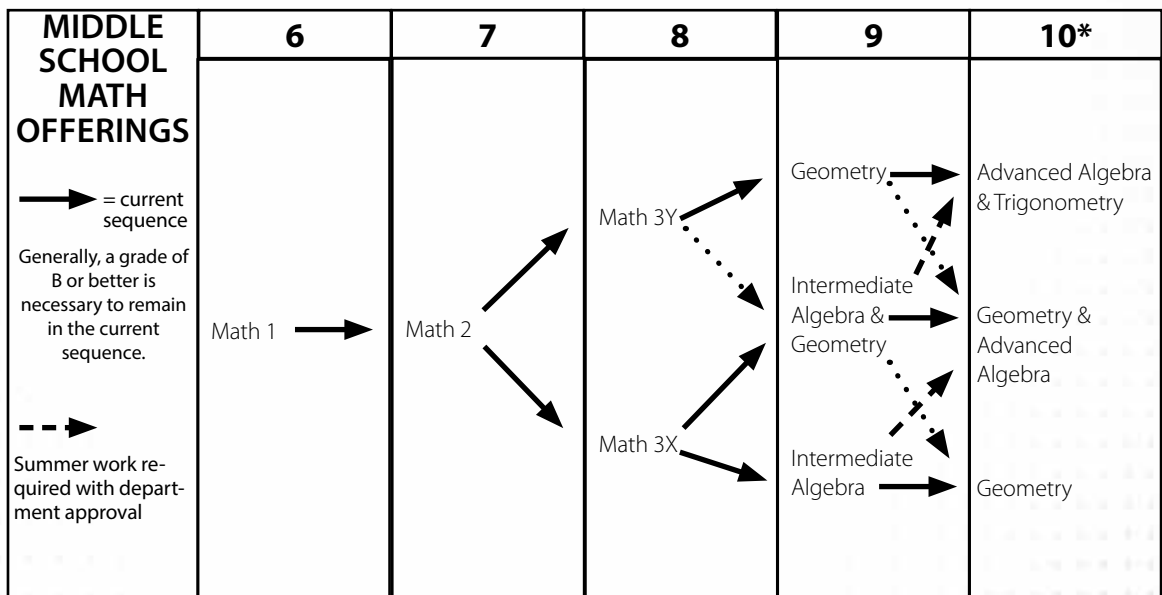
MATH 3y **(#13132)**

Math 3y is a continuation of the Middle School mathematics curriculum designed to prepare students for the Upper School mathematics program. By individual investigation and group collaboration, students will delve into such topics as quadratic, polynomial, rational, and exponential functions. Linear inequalities and systems of linear inequalities will be studied. Right triangle relationships as well as coordinate geometry will be introduced, including an exploration of the concepts of similarity and congruence. The course will expand upon the previous study of volume and surface area of three-dimensional figures. Probability will be further developed, including probability models, conditional probability and an introduction to counting principles.

**GEOMETRY
(#13316)**

Major year course. 3 credits. Forms II, III, & IV. Prerequisite: Intermediate Algebra.

Geometry is an integrated course in plane and solid geometry which begins with a brief history of geometry and a discussion of logic and methods of proof. The usual theorems of Euclidean geometry are studied, and at appropriate times the natural extensions of solid geometry are made. Students are not required to memorize the proofs of theorems, but are expected to be able to construct good proofs of original problems. Much work is done with “numericals,” and considerable skill in algebra is necessary.



* For courses beyond Grade 10 refer to the chart of upper school math offerings on page 64.

MUSIC

Music is required of all Middle School students. Pingry's Middle School music program seeks not only to foster skill development in singing and playing in ensembles but also to help cultivate an appreciation for many diverse styles of music. Performance material is selected from a rich and broad spectrum of historical and cultural sources.

The Department has an adjunct staff which provides private lessons on most instruments at the school. These lessons are given after school hours and are billed separately to the student account. As an integral part of the learning process, private lessons are strongly recommended. They can be arranged through the school or scheduled by the student outside the school. Students who participate in the program usually go on to play and/or sing in the Upper School.

GENERAL MUSIC

General Music, a required course for Grade Six, provides students with the opportunity to understand concepts in music theory and to prepare music for performances in a variety of venues. Students may sing or play musical instruments at age- and skill-appropriate levels. Students will be exposed to diverse forms of American music as well as music of other world cultures and analyze the music of other regional and world cultures.

ELECTIVE MUSIC ENSEMBLES

Music Ensembles provide students with the opportunity to prepare music for performances in a variety of venues. Students may sing or play musical instruments at age- and skill-appropriate levels.

The teamwork experience is crystallized in the Music Ensemble. Learning to work together toward specific student-driven performance goals is key to the Ensembles' value and success.

Music Ensembles provide the basis for seasonal school wide festivals and concerts. They serve as the logical outgrowth of the General Music program, allowing students specifically interested in music performance the opportunity to hone their musical and performance skills.

SIXTH GRADE STRINGS

For string players in the Sixth Grade. Emphasis on teaching basic string ensemble techniques. Performances include both the winter and spring festival concerts.

SIXTH GRADE BAND

For Sixth Grade students playing band instruments in early proficiency levels. Emphasis on teaching instrumental and ensemble techniques. Performances include both the winter and spring festival concerts.

SIXTH GRADE BOYS/GIRLS CHORUS

For singers in Grade Six who desire to perform in both the winter and spring festival concerts. The groups that are separated by gender rehearse three class periods in a seven-day cycle.

MIDDLE SCHOOL BAND

For students in Grades Seven and Eight playing band instruments. Performance of standard repertoire for Middle School wind/band ensembles.

TENOR/BARITONE CHORUS

For tenor/baritone students in Grades Seven and Eight desiring performance repertoire that continues to build on the skills learned in General Music. Each form rehearses separately with one class meeting per week.

MIDDLE SCHOOL GIRLS CHORUS

For girls in Grades Seven and Eight desiring performance repertoire that continues to build on the skills learned in General Music. The full group rehearses one class period per week.

MIDDLE SCHOOL STRING ORCHESTRA

For string players in Grades Seven and Eight. Performance of standard repertoire for Middle School string ensembles. The full group rehearses one period per week.

PHYSICAL EDUCATION AND ATHLETICS

The Athletics program is designed to offer positive experiences that foster greater understanding of the importance of promoting physical development. It provides the child with the tools necessary to make healthy decisions about exercise and future athletic and recreational activities. Our primary goal is to offer maximum opportunity for children to enjoy physical activity at their own pace and thus realize that it is a desirable and worthwhile endeavor, one they will want to continue throughout their lives.

GRADE SIX

Through the physical education and athletics program, we help develop the body while also providing an outlet for the seemingly boundless energy of the age. Students in Grade 6 are in a unit-based physical education program where they participate in all the sports that they will have an opportunity to play interscholastically at Pingry. The Grade 6 program also provides limited, optional experiences to don the “White and Blue” and represent Pingry in an interscholastic sports experience.

FORMS I AND II

Team sports are the foundation of the PE program in Form I and II, but the sports themselves are completely their choice: we maintain a “no-cut” policy in Middle School sports so students have the chance to participate in a team sports experience at the level of their ability. To wit: a Pingry Middle Schooler provides the will; we provide the way.

Sports offered include:

Fall: Football (Boys), Soccer (Boys, Girls), Cross Country (Co-Ed), Field Hockey (Girls), Tennis (Girls), Water Polo (Co-Ed)

Winter: Basketball (Boys, Girls), Ice Hockey (Co-Ed), Swimming (Co-Ed), Wrestling (Boys), Fencing (Co-Ed)

Spring: Baseball (Boys), Track (Boys, Girls), Lacrosse (Boys, Girls), Tennis (Boys), Softball (Girls)

SCIENCE

The Middle School science program seeks to foster a curiosity about the natural world and a love of science. The program builds toward higher-level thinking skills using both formative and summative assessments. It aims to develop the knowledge, understanding, and skills that will appropriately support the development of students who are scientifically literate in our increasingly technological society. The theme of the Middle School Science Curriculum is “The Individual in the Natural World.”

SCIENCE 6 (#17004)

The theme for Science 6, “Cycles of Matter and Energy,” is central to each of our three trimester-long units. Students study ecology in a life science unit during Trimester 1. Physical science is the focus for Trimester 2 as the students investigate the properties of waves, sound and light. During Trimester 3, students are introduced to earth science in a unit designed around our global use of water as a natural resource. Throughout the year, students continue to hone their observational and critical thinking skills. They explore each unit of study through hands-on activities which also emphasize the development of more science-specific skills such as data collection and analysis.

SCIENCE 7 (#17104)

The theme for Science 7, “The Nature of Matter and Energy and Its Connection to Our World,” will continue into the Form II, Science 8 course. In Science 7 students develop the practical and research skills that facilitate the making of connections between life on Earth and our understanding of Science in the context of our expanding knowledge of the Universe. Students’ explorations into the nature of matter, the definition of life, and the historical development and application of scientific theories and laws, are designed to develop understanding of the physical and biological concepts that relate to our lives. The curriculum is centered on skill growth rather than the acquisition of specific facts.

SCIENCE 8 (#17204)

The theme for Science 8, “The Nature of Matter and Energy and Its Connection to Our World,” builds upon the Form I course. In Science 8 students continue to develop the practical and research skills that facilitate the making of connections between Science and the world we live in. Students’ initial explorations into the nature of matter lead to a developing understanding of the physical, chemical, and biological processes that are relevant to our lives. The curriculum is centered on skill growth rather than the acquisition of specific facts.

VISUAL ARTS

The Middle School Fine Arts program aims to provide students with a visual vocabulary in order for them to speak about their lives in a way that is authentic and meaningful. Students will have artistic experiences in a supportive studio. This climate allows our students to take risks in the creative process utilizing a wide range of materials. Gallery visits are regularly scheduled in the Hostetter Arts Center to teach students how to approach and read a work of art and to encourage a deeper engagement by regularly viewing masterworks. Students become open to the possibilities when they discover the transformative power of art in their lives. Our program allows students to find their voice through a supportive, confidence building arts curriculum.

ART 6 (#12103)

In Grade 6 students maintain an art journal to document their life stories. Weekly themes are assigned to aid in this process. Student artwork is shared in a positive non-judgmental format that is rich with specific feedback. Every student has the opportunity to become an acting curator of one of the group projects. In our studio time, skills in observational drawing, color theory, painting, sculpture, and design are developed. Students are introduced to previously unfamiliar materials to expand their knowledge. Assessment is based on individual improvement, willingness to be creative, and, most importantly, demonstrated effort.

ART 7 (#12105)

Students are introduced to the concept of art as language while building on traditional fine art practices. Grade 7 art students continue the practice of keeping an art journal to explore themes pertaining to their interests and passions. Journal homework is assigned weekly. During studio time, students develop their observational drawing skills and learn to explore the interior world of the imagination. Major projects include painting a personally meaningful image from observation or memory. The emphasis of this project is on the application of color theory as an expressive vehicle for storytelling. Gallery visits are scheduled in the Hostetter Arts Center on a regular basis. Student curators facilitate respectful discussions about the meaning and purpose of art. Assessment is based on individual improvement, willingness to be creative, and, most importantly, demonstrated effort.

STUDIO ART 8 (ELECTIVE) (#12204)

Grade 8 students create a one-of-a-kind art journal with mixed media. Studio work strives to create a balance between traditional skills and contemporary practices. Projects may include graphic design, typography, pen and ink portraits, oil pastel, painting, sculpture, and collage. Each class will have a unique opportunity to choose from a variety of themes which excite and inspire their individual artwork. We will continue to use the gallery exhibits and visiting artists as a first-hand resource.

ART AND NATURE-8 (ELECTIVE) (12111)

Art and Nature students will utilize the Pingry environment as their palette to make art in this course. Students will observe, interpret, and interact with the environment and learn to communicate through artistic language. Students will collect interesting materials, such as colorful leaves, and make sculptures with these materials, and they will experiment with cyanotype – a photo developing process that utilizes sunlight. Students will also use photography to make photo transfers onto their own hand-made paper. A toolbox of hand tools will give students experience in shop and studio practice. The course will culminate with students creating a group sculpture on campus.

DIGITAL FILMMAKING-8 (ELECTIVE) (#12007)

Whether making serious art or sharing an experience with peers, our students need filmmaking skills to communicate in the 21st century world. Building on the natural comfort Middle School students have with technology, students will learn to use this medium in sophisticated and artful ways. Students will be introduced to fundamental filming techniques and to the basics of editing on “iMovie” and “Adobe Premier” software. Students will make a series of short films and will work both collectively and individually on these projects. They will explore thematic works, documentary, and narrative filmmaking. Students will be able to share their projects through a video blog and on YouTube and through a division wide screening at the end of the year.

WORLD LANGUAGES – CLASSICAL LANGUAGE

The classical language program provides a comprehensive introduction to Latin. Students will learn and practice all the skills necessary to become proficient readers of Latin. Latin focuses on the acquisition of vocabulary and grammar while also immersing students in Roman life and culture. They will read and translate stories concerning the life of a Roman family in Pompeii, Romanized Britain, and Egypt. Through these texts, their understanding of the social and political history of the Romans during the first century is developed. A strong emphasis is also placed on learning English vocabulary with Latin roots. Finally, students will further enhance their skills by using the online curriculum Operation Lapis. The course presents Latin not as an abstract linguistic system but rather as a medium of the great culture and literature that molded it and as the source of more than half of the vocabulary of modern English. As with modern language, when students choose Latin, they are committed to that choice through their Middle School years. Students are grouped according to their previous experience in the language, with the Department Chair and the Middle School Director making all placement decisions.

LATIN 1A (#19100)

Year course.

In this course, students learn vocabulary, grammar, and syntax by reading and translating stories of events surrounding a Roman family from the city of Pompeii. Through these texts their understanding of the social and political history of the Romans during the first century is developed. The course presents Latin not as an abstract linguistic system but rather as the medium of the great culture and literature that molded it.

LATIN 1B (#19200)

Year course. Prerequisite: Latin 1A.

This is a continuation of Latin 1A. New vocabulary, grammar, and syntax are introduced. While the events in the first book took place in and around Pompeii, the action has now moved to Roman Britain. The history of Roman Britain is presented in detail.

Level 1A and Level 1B Latin combined are roughly equivalent to Level 1 of Latin in the Upper School. Students usually take 1A and 1B in Grades Six and Seven and Level 2 in Grade Eight. Students in Grade Six can anticipate beginning Level 3 in the Upper School.

Some students may qualify for a language offering provided in the Upper School. This may be elected, although the final decision on placement rests with the World Languages Department. (See pages 39–42 for Upper School offerings.)

LATIN 2 (#19334)

Year course. 3 credits. Prerequisite: Latin 1 or Latin 1B.

This course, which builds on previously established foundations, reviews and integrates items already met while introducing new vocabulary, grammar, and syntax. The historical novel continues, covering such themes as the history, science, medicine, and religion of Alexandria, Egypt, and Roman Britain.

WORLD LANGUAGES – MODERN LANGUAGE

The modern language program provides a comprehensive introduction to modern language study. Students will learn and practice skills necessary to acquire a second language. They will be encouraged to take risks and to communicate in the language studied. We work toward a total immersion classroom where the language is modeled by the teacher and media resources. Emphasis is placed on the relevance of the language to a student's own life. We encourage students to see things through the culture of the target language by drawing parallels to and contrasts with the student's own culture. Pronunciation, spelling, vocabulary acquisition, and grammar are taught progressively. When students choose a world language, they are committed to that choice through their Middle School years. Students are grouped according to their previous experience in the language, with the Department Chair and the Middle School Director making the placement decisions.

All the languages are taught in a similar way. Oral skills that include both speaking and listening are constantly presented and reinforced. Reading and writing skills are introduced in class and reinforced through working with the textbook, the accompanying workbook, and teacher-developed materials. Work in grammar and spelling familiarize the student with the structure of the language. The Chinese course uses the Pinyin phonetic system and simplified characters.

As the student becomes more knowledgeable in the subject, writing assignments advance through the sentence, paragraph, and short essay stages. Areas such as geography, history, literature, current events, and culture are also covered so that students can begin to expand their intellectual and cultural horizons. Classroom activities often challenge the student to use the newly acquired language in meaningful real-life situations. The instructors also take advantage of textbook online resources as well as language learning websites like Quizlet and Quia.

CHINESE 1A (#19903)
FRENCH 1A (#19114)
GERMAN 1A (#19124)
SPANISH 1A (#19144)

Year course. Available to Grades 6 and 7.

CHINESE 1B (#19904)
FRENCH 1B (#19214)
GERMAN 1B (#19224)
SPANISH 1B (#19244)

Year course. Available to Grades 7 and 8.

Level 1A and Level 1B Chinese, French, German, and Spanish are roughly equivalent to Level 1 of the language in the Upper School. Students usually take 1A and 1B in Grades Six and Seven and Level 2 in Grade Eight. Students in Grade Six can anticipate beginning Level 3 in the Upper School.

Some students may qualify for a language offering provided in the Upper School. This may be elected, although the final decision on placement rests with the World Languages Department. (See pages 39–42 for Upper School offerings.)

CHINESE 2 MS (#19913)
FRENCH 2 MS (#19344)
GERMAN 2 MS (#19325)
SPANISH 2 MS (#19245)

Major year course. 3 credits. Prerequisite: French 1B, German 1B, or Spanish 1B.

The second-year language experience reinforces skills that were introduced at the first-year level, develops them to a higher degree, and continues to present grammatical structures and tenses. Classes are conducted — and the student is encouraged to think, speak, and write more consistently — in the target language. Students read for understanding and appreciation while also building vocabulary and grammar skills.

UPPER SCHOOL

PHILOSOPHY OF THE UPPER SCHOOL CURRICULUM

The Upper School curriculum is designed to provide a rigorous, comprehensive, intellectually challenging academic program that prepares students to perform at the highest level in college as well as to lead and serve honorably in the greater community. Through their course work in the Upper School, Pingry students have the opportunity to develop an informed, nuanced picture of the world as viewed through the various disciplines; to practice and hone their powers of higher-order thinking and analysis; to refine their skills of lucid, persuasive written and oral communication; to exercise and expand their creative imagination; and to establish a lifelong passion for learning.

Traditional courses, with their emphasis on the mastery of content in a classroom setting, are necessarily the foundation of the Upper School curriculum; but, through group discussion, one-on-one conferences with faculty, and individual work, students are always encouraged to think and perform independently and to solve problems in innovative ways. In addition to the core academic curriculum, every student must take courses in health and fitness, to promote the wellness and mind/body integration essential to adolescent development. Courses in the arts are also required, to develop appreciation for and facility in the creative, intuitive dimension of life along with the analytic. Courses in computer science, financial literacy and public speaking prepare students to be responsible leaders in an ever-changing society and a complex global economy. Information literacy skills — the ability to locate, evaluate, and use information critically — are taught in the context of research assignments in the various disciplines. It is our expectation that Pingry graduates will be fully prepared not only to take on their college programs successfully and enthusiastically, but to step into the world with confidence in their abilities as thinkers and leaders.

GRADUATION REQUIREMENTS

A total of 51 credits is required for graduation. Each major semester course yields 1.5 credits. Each major year course yields 3 credits. Each minor year course yields 1 credit. Fitness and Health courses are organized on a trimester basis; all others are semester- or year-long courses.

The distribution of required Upper School courses is as follows:

Arts (Visual Arts, Drama, Music)	1 Year-long Course
English	12 Credits
Health*	2 Credits
History**	9 Credits
Mathematicst	9 Credits
World Languages††	9 Credits
Laboratory Science	6 Credits

* Students will take one trimester of health in Form III (Grade Nine) and one in Form IV (Grade Ten).

** One major year course must be U.S. History.

† Must be earned in the Upper School by the end of Form V (Grade Eleven).

†† A student must complete three consecutive years of the same language in the Upper School.

- All students must take math, history, and a world or classical language through Form V (Grade Eleven). English must be taken every year.
- All students are required to perform ten hours of Community Service each year.
- Fitness Education: Effective September 2015 all students must complete Introduction To Physical Fitness by the end of Form IV (Grade 10). All students in Form IV must be on a Pingry athletic team or enrolled in a Fitness class, Health, Dance, or Drivers Education during all three trimesters. All Students in Forms V-VI will be enrolled into Fitness Education but have the option of selecting an approved activity in its place as long as it meets the minimum physical fitness requirement.
- All students in Form III (Grade 9) must complete a trimester of Financial Literacy. All students in Form VI (Grade 12) must complete a financial literacy lecture series and online course requirement.
- A student who repeats a grade is expected to fulfill all grade-level obligations.
- Courses are graded on a standard letter grade scale unless noted otherwise. To receive credit for a course, a student must earn a passing grade of D– or better.

Independent Senior Project: ISP offers an opportunity for all Form VI students in satisfactory academic and disciplinary standing to complete their Pingry education outside of the school. Seniors apply to participate in a project of their own design by submitting a proposal to the ISP Committee. The ISP experience should offer students an opportunity to learn a new skill or trade, to participate actively in real-life situations in business, the arts, or a vocation, and to continue to broaden their knowledge while learning its practical application. Pingry believes this kind of experience enriches an education by requiring students to employ both new skills and previously learned concepts and to display a high degree of responsibility in the workplace. It also helps students evaluate their own areas of interest and expertise for college and career.

Each ISP is overseen and evaluated by a committee of faculty along with the student's ISP advisor and the actual job supervisor. Requirements are outlined and carefully reviewed at regular intervals to ensure the student's satisfactory completion of all requirements necessary for graduation.

All seniors are expected to participate in ISP; successful completion is a requirement for a Pingry diploma. Students will outline and propose their ISP beginning in January of their senior year and fulfill their proposals during the month of May, according to a timeline provided by the ISP committee. Some students' startup dates may be adjusted to accommodate A.P. commitments. Seniors are not approved to begin their ISPs until all academic and administrative requirements established by the Academic Dean, College Counseling Office and ISP Committee are met.

GENERAL NOTES

1. Students in the Upper School carry a normal course load of five majors each semester. Students in Grade Twelve, depending on the rigor of their program, may take four majors each semester with the approval of the Academic Dean and their college counselor. No student may take fewer than four major courses each semester. Unless otherwise specified, all courses meet four periods each cycle for 65 minutes.
2. Every student must take English every semester. Students in Grades Eleven and Twelve may not take two or more English semester courses as part of the four-major-course minimum. They may take additional English courses as fifth majors with Departmental permission and the approval of the Academic Dean.
3. Juniors and seniors choose an English course and two alternates each semester. If a student is successfully scheduled for the first choice or the alternate, no change can be made. Therefore serious thought should be given to English course selections. Occasionally it is impossible to schedule any of a student's choices for a given semester; in such cases the student will meet with the Upper School Director or Academic Dean to select the class.
4. Students may drop a full-year or semester course with no prejudice by the end of the third cycle of classes from the start of the course. When a student drops a course after the third cycle of classes of school, that course will appear on the student's transcript with a mark of withdrew while passing, denoted W/P, or withdrew while failing, denoted W/F. After the third cycle of classes, a student may not withdraw except for reasons of health or for other compelling reasons. Such exemptions will be given only by the Upper School Director after consultation with the Academic Dean. In those cases in which a student has withdrawn from a course for reasons of health or for other compelling reasons that have faculty support, the fact will be noted on the transcript, denoted W/MED.
5. Honors and Advanced Placement courses are selective. Although any student may apply for these courses, the final selection is approved by the appropriate Department Head.
6. Placement testing in math and world languages for students new to Pingry will take place in May and June prior to entry. The Pingry Admission Office will coordinate the placement testing process.
7. In addition to course materials specified by their teachers, each student is expected to have a laptop that meets the minimum requirements outlined by our technology department.

STANDARDIZED TESTING

Pingry administers the PSAT to Form IV and Form V students each fall in preparation for the SAT administered by the College Board. A practice ACT is offered to sophomores each spring. Upon satisfactory completion of certain courses, students may choose to take the appropriate SAT Subject Test. Students should consult their teachers, advisors, or college counselors to determine the best time to take the ACT, the SAT, or a particular Subject Test. Additional information on the timetable for taking and preparing for subject tests may be found on the College Counseling website, <http://www.pingry.org/academics/college.html>.

All students who take an Advanced Placement course are required to sit for that course's A.P. exam in May in order to receive the A.P. designation on their transcripts. If a student does not earn and report a score for the A.P. exam, 1) the A.P. designation will be removed from the student's transcript and replaced with an Honors designation, 2) the student will take a Pingry exam or complete a project or paper, which will be incorporated into the student's final grade, and 3) colleges which have received a transcript will be sent an amended transcript. Any student with a first-semester grade of B or better is expected to earn a passing grade (a 3 or above) on the A.P. exam. If a student with a first-semester grade of B or better earns a 1 on the A.P. exam, the A.P. designation may be removed from the student's transcript and replaced with an Honors designation, and colleges may be notified of the change.

REGISTRATION PROCEDURE

To register for courses, the student, working with family and advisor, selects the proposed courses, completes a course selection form, and takes it home for parental approval and signature, in ink. Any questions about the course selection should be addressed to the advisor, Academic Dean, or College Counselor. The form is then returned to the advisor and the Upper School Director for signatures. For students rising to Grades Eleven and Twelve, the form must also be reviewed by the College Counseling staff.

Changes in registration are allowed, with permission of the Academic Dean and Upper School Director, until June 1. After June 1, students will be required to fill out a Course Schedule Change Request Form and acquire the appropriate signatures to indicate approval of the change. It must be emphasized that since dropping or changing a course after June 1 frequently affects class size, balance, etc., such requests may not be honored. All options should be carefully considered before June 1.

The School reserves the right to withdraw any course in which there is insufficient enrollment.

COMPUTER SCIENCE

The computer science curriculum at Pingry seeks to strike a balance between giving students an in-depth understanding of the discipline of computer science and applying computer science concepts to other disciplines and larger problems. Consequently, the curriculum is both rigorous and flexible. Course topics include core academic concepts that students will encounter throughout their academic careers, while projects evolve from year to year and provide students with immediate applications.

SURVEY OF COMPUTER SCIENCE (#09448)

Fall semester course. 1.5 credits. Forms III–VI. This course is a prerequisite for those intending to take Programming.

This project-based course will focus on defining what computer science is, including the history, goals, and scope of the discipline. The course will touch upon integral computer science topics, including logic, algorithms, data representation, networking, the internet, web design, artificial intelligence, and game building. Projects will be done both individually and in teams and will combine computer science skills with ideas from other disciplines. Many projects will be completed using the Scratch (scratch.mit.edu) environment, which allows students to build programs without worrying about programming syntax. There is no previous experience or other prerequisite required for this class.

PROGRAMMING (#09449)

Spring semester course. 1.5 credits. Forms III–VI. Prerequisite: Survey of Computer Science. This course is a prerequisite for those intending to take A.P. Computer Science.

This course will introduce core programming concepts, primarily using the Python programming language. Focus will be on developing good programming techniques and style. Topics covered will include primitive data types, mathematical operations, structured programming with conditional and iterative statements, algorithm design, and an introduction to object-oriented programming. Students will design programs that solve problems, such as performing calculations, designing a logic game, and creating an artificially intelligent agent. This course is the prerequisite for AP Computer Science. Students may have the option to sit for the AP Computer Science Principles Exam.

A.P. COMPUTER SCIENCE (#09447)

Major year course. 3 credits. Forms IV–VI. Prerequisite: Successful completion of Survey of Computer Science and Programming, or equivalent experience and permission of Department Head.

This course continues work on the material introduced in the Programming elective and focuses on gaining a mastery of programming methodology, algorithms, and object-oriented program design. Students will learn the Java programming language and the benefits of using an object-oriented language. The course will also cover good design practices, sorting algorithms, and run-time efficiency. Coursework will consist of problem sets and labs, as well as preparation for monthly written unit exams. There will also be opportunities for students with strong programming backgrounds to challenge themselves with more in-depth assignments. All students will be prepared for the Advanced Placement Computer Science exam and are expected to sit for it in May. After the AP exam, students will complete a relevant project that will allow them to apply the concepts learned in the course. The prerequisite for this class is the Programming elective or equivalent coursework.

ADVANCED TOPICS IN COMPUTER SCIENCE: DATA STRUCTURES AND PROGRAMMING LANGUAGES (#09446)

Major year course. 3 credits. Forms V-VI. Prerequisites: Successful completion of A.P. Computer Science and Departmental permission.

The focus of this project-based course is on data structures and program design. In the first semester, the course will focus on gaining a mastery of core data structure functionality, combined with learning to design data structures based on a common API. Topics will include hash tables, linked lists, queues, stacks, trees, and other structures. Students will learn to consider run-time, memory, and documentation when designing programs. In the second semester, the course will expand its scope to cover principles of various programming languages: scripting, object-oriented, and functional. Students will be expected to work on projects both individually and in groups, while improving their logic and problem solving skills. Assignments for this course will include programming labs, in-class presentations, and independently researched projects. This class may be repeated for credit with prior approval of a proposed outline of topics.

DRAMA

As a part of the academic curriculum, the four elective courses that comprise the Drama program in the Upper School demand that the students use themselves, express their unique personalities and life experiences, find their own voice in the service of artistic creation. In a real sense they are the primary material of all the Drama courses. At the same time the courses in the program require that the students learn a discipline, a craft that develops a variety of personal resources and academic skills: listening, concentration, physical flexibility, emotional self awareness, openness to others, critical reading skills and analysis, problem solving, etc. At the core of the work is the development of the dramatic imagination. This kind of learning is unique to the Dramatic Arts.

Unlike the other academic disciplines, Drama is always about the “Other.” This requirement to involve, acknowledge and, at times, sublimate the “Self” in favor of the “Other” makes the Dramatic Arts and its most visible creation--the stage play--an invaluable experience for young adults. The student actor is trained to place his attention on the other actors in the scene, to react to what is happening in the other actors. In a larger sense a Drama Program that stages a variety of

challenging plays gives the actors and the school community (the audience) a chance to participate in the “stories of others.” It brings the larger world into the smaller world of the school.

Drama teaches its varied “lessons” by having the students “do it.” Personal and artistic growth is “tested” by having the students continually put their “knowledge” about themselves and their craft to use in daily exercises, scene study performances and staged plays.

DRAMA 1: CREATIVE DRAMATICS (#10724)

Major year course. 3 credits. Forms III-VI.

Drama 1 is a workshop course that employs an approach generally known as Creative Dramatics, the use of drama as a means of developing creativity and other personal resources. A problem is posed or an “inspiration” given which must result in a short play. Students spend some time brainstorming possible solutions. The goal is to discover as many options as possible.

Students then plan the overall structure of the piece and discuss the characters. With this in mind, they improvise the play. During the second semester, students may script some of the plays after the first improvisation, polishing the material by using the criticism of the class.

DRAMA 2: INTRODUCTION TO ACTING (#10744)

Major year course. 3 credits. Forms IV-VI. Prerequisite: Drama 1.

This course uses character/scene improvisation and the exercises of Sanford Meisner and Robert Lewis to develop the actor’s basic resources: imagination, listening, concentration, and “truthfulness.” Students are also introduced to some basic techniques of scene analysis, practicing them in several scenes and monologues.

DRAMA 3: ADVANCED ACTING (#10754)

Drama 3 is our advanced acting course in scene study. Students strengthen their ability to analyze a scene from a play; they memorize and rehearse the scene and perform it several times, making adjustments using the criticism of the class. The goal is to strengthen the ability to “live truthfully under the imaginary circumstances of a play.”

During the first semester, students explore acting techniques by working on scenes from modern plays. During the second semester, students concentrate on Shakespeare. They learn how to use the heightened language of the plays and how to find the “hidden direction” that the verse provides. Also during the second semester, students explore play structure and work with techniques for play analysis. At some point during the year, members of the class will perform a showcase of their work for the Pingry community.

DRAMA 4: PLAY PRODUCTION (#10764)

Major year course. 3 credits. Form VI. Prerequisite: Drama 3.

Drama 4 is our production course for students who have demonstrated a serious commitment to the dramatic arts and wish to work on the staging of a classic or challenging modern play. There will be one major and one minor production each year staged in the Attic Theater or Macrae Theater. Students in the course will be involved in all aspects of production — stage and lighting design, set building, costumes, props, make-up, etc.

MOVEMENT FOR ACTORS (#10794)

Trimester course. 1 credit. Meets Monday, Wednesday, and Friday during Conference Period. Prerequisite: For actors in the current fall production.

The course consists of a daily actor’s warm-up, which includes centering exercises, body isolations, rhythmic movements, locomotor exercises through space, and relaxation work. The actors will be led in yoga-styled movements that will stretch, strengthen, balance, and improve their neuromuscular coordination. Depending on the production, the class may explore mask work, a particular style of dance/movement, or character movement. Moving as a character requires the actor to first become self-aware about his or her own movement preferences and points of tension. All movement for acting work is based on increasing the awareness of the mental, physical, and emotional aspects of life and making choices so the student actor can walk in another person’s (character’s) shoes.

ENGLISH

The Pingry English Department’s goals can be summed up in Francis Bacon’s famous triad: “Reading maketh a full man, conference a ready man, and writing an exact man.” These three goals are intertwined, each adding to and enriching students’ experience and achievement in the other. Toward these complex and important ends, students in Forms I through IV take yearlong courses, designed to acquaint them with a broad spectrum of authors and writing experiences; in Forms V and VI, students take more sharply focused one-semester courses.

The literature that Pingry students read spans the comprehensive range of human experience, from the tragic drama of Sophocles to the lyrical idealism of the British Romantic poets, from the humanistic comic vision of Chaucer to the heroic quest of Frederick Douglass, from the romantic realism of Emily Brontë to the pessimistic naturalism of Edith Wharton. In the upper grades, books are presented as significant artifacts of the cultures, philosophies, and streams of artistic development that produced them. Where possible, connections are made between ideas and movements being studied in history and those being studied in English. Teachers utilize film, music, and art where they connect with literature.

By “conference” Bacon means the ability to communicate orally, an important skill in virtually every field and an important tool of thinking. Students are encouraged to discuss logically and articulately, stating their own views with confidence while listening to and considering those of others. Participation in large and small group discussions is considered an important component of each course and is a factor in determining grades.

Our goal in teaching writing is to develop the ability to communicate in a clear, concise, interesting, and effective manner. To this end, teachers assign compositions every three to four weeks, the lengths varying according to the grade level. Many of these papers are

essays related to the literature being studied; others may be personal narrative or analysis, fiction, or poetry. By “exact,” Bacon also understood that writing is an aid to thinking; journal writing and online conversations (using such programs as Bboard and Moodle) challenge students to formulate their reactions to assigned reading before class discussions and take responsibility for setting class agendas.

All courses offered by the English Department provide a rigorous, challenging structure within which students learn to appreciate literature, draw informed inferences, and express themselves in a mature, lucid writing style. Historically, a majority of students who have completed our program and taken the A.P. English Language and Literature exams have posted superior scores.

Implicit in the English program is the goal of helping students develop a sense of ethical and social responsibility. From Harper Lee’s *To Kill a Mockingbird* to Shakespeare’s *Macbeth* to Thoreau’s “Civil Disobedience” and Coetzee’s *Waiting for the Barbarians*, Pingry literature study includes probing discussions of questions about the human condition and the human being as a part of society.

Vocabulary development is stressed throughout the program.

Note: Books and authors listed in course descriptions are as specific as possible. Actual works taught may vary somewhat from year to year.

ENGLISH 9 (#15304)

Major year course. 3 credits. Form III.

A major objective of the English 9 program is to increase student knowledge of the way language works and how authors strategize to produce a variety of literary genres; students read, discuss, and write analyses of short stories, novels, dramas, and poetry. Other key aims are to help students improve their essay writing skills, elevate their vocabulary, and shore up grammar mechanics. Students read some seminal texts of Western Literature: *Oedipus the King*, *Antigone*, and *Othello*. More modern works deal with the theme of coming of age and offer different cultural perspectives: Hurston's *Their Eyes Were Watching God*, Miller's *Death of a Salesman* or Fugard's *Master Harold and the Boys*, Alexie's *The Absolutely True Diary of a Part-Time Indian*, and Salinger's teenage classic *The Catcher in the Rye*. Satrapi's powerful graphic novel *Persepolis* has been added to introduce the students to an exciting new method of storytelling.

ENGLISH 10 (#15404)

Major year course. 3 credits. Form IV.

In English 10, students move to a new level of sophistication, reading literature that spans the period from the Middle Ages to the 20th century. Although some of the texts are American and serve as a transition from the freshman-year focus on coming of age, most are drawn from English literature, including works by Chaucer, Shakespeare, and Swift. Students are encouraged to explore the connections between this body of literature and European history, which they are studying concurrently. Students also become more adept at critical interpretation; as they are exposed to various critical theories and major literary movements, they are urged to recognize that literary works are open to multiple interpretations and that, with the proper skills and knowledge, they can infer themes themselves. Writing assignments and class projects are designed to foster critical thinking, intellectual self-awareness and self-reliance, creative experimentation, research skills, and a more mature, precise style of expression. Oral participation is emphasized to promote active learning. Vocabulary is assigned each cycle.

ENGLISH OFFERINGS

GRADE	FORM	FALL	SPRING
9	III	ENGLISH 9	
10	IV	ENGLISH 10	
11	V	AMERICAN LIT	ANY SPRING ELECTIVE
12	VI	EURO/BRIT LIT OR WORLD LIT	ANY SPRING ELECTIVE

ENGLISH OFFERINGS: FORMS V-VI

Fall and Spring Semester Courses: All juniors and seniors take two one-semester courses per year. The fall offerings are survey courses designed to acquaint students with the sweep of literary history. Juniors take American Literature in the fall semester; seniors may choose either World Literature or European and British Literature. Spring offerings are elective courses that encourage students to explore more specialized interests. All spring electives are open to all juniors and seniors; there are no prerequisites.

Additional English Courses: Juniors and seniors with a keen interest in English may, with permission of the Department Head, take additional English courses from the junior/senior selections. Full credit will be given, but the course will not count towards fulfillment of English course requirements or toward the requirement that seniors take four major courses. Non-credit auditing of extra courses is also possible by arrangement with the instructor and the Department Head.

FALL SEMESTER

AMERICAN LITERATURE (#15701)

Major semester course. 1.5 credits. Form V.

American Literature is a chronological survey course featuring authors who made significant contributions to the mosaic of American letters from its beginnings to the twentieth century. Students begin with essays by Emerson and Thoreau, exploring the Transcendentalist reconciliation of individual and collective identities, a theme also central to the mid-century works of authors such as Hawthorne, Melville, Douglass, and Twain, and poets such as Whitman, Dickinson, and Poe. With the century's end, the focus shifts to the Naturalism of Gilman, Crane, and Chopin, a sometimes brutally pessimistic reaction to 19th-century optimism. Turning to the '20s and '30s, the course highlights a period of ascendancy for American literature with selections from Fitzgerald, Ellison, and various modern poets. Finally, the discussion turns to more contemporary selections which may include such authors as Williams, Miller, Anaya, and Morrison. The course considers major critical modes, and students are encouraged to make connections between historical/biographical elements in the course and their work in junior-year American history.

EUROPEAN & BRITISH LITERATURE (#15711)

Major semester course. 1.5 credits. Form VI.

This chronological survey course examines central literary works of England and the Continent written between the mid-18th century and the present. The course explores how individual writers were affected by literary movements, scientific developments, social mores, and historical events during the last 250 years. Beyond a strong

focus on literary movements such as Romanticism, Realism, Modernism, and Existentialism, students are encouraged — in class discussions, essays, and journals — to examine all course selections through a variety of critical approaches. After a brief review of British romantic poetry, we follow the rise of the realistic novel as it reveals the lives of ordinary individuals, the tensions between social classes, and the pressures of middle-class life in a period of growing industrialization. In the last half of the course, we turn to the ways 20th-century writers confronted the crises of their century. Authors may include Wordsworth, Blake, Austen, Brontë, Dickens, Hardy, Tolstoy, Chekhov, Woolf, Shaw, Forster, Barker, Sillitoe, and Garcia Lorca.

WORLD LITERATURE (#15721)

Major semester course. 1.5 credits. Form VI.

This course explores the complexity and cultural variety of our world as reflected in literature from several continents. As a mirror of culture, literature shows us how universal human qualities emerge within cultural boundaries. As a record of events, literature enables us to better understand history (which largely consists of collisions between different cultures) as we become more of a global village. Students will be asked in essay topics and seminar-style discussions to explore their own connections to parts of the world previously hidden to them. What are our commonalities? What makes each culture — and each individual within it — unique? Will we be able to bridge cultural gaps in the future? If so, perhaps literature can offer us entrée to peaceful interaction in the 21st century.

Authors may include J.M. Coetzee, Athol Fugard (South African); Gabriel García Márquez (Colombian); Arundhati Roy (Indian); Li Po, Tu Fu, Tao Chien (Chinese); and others.

SPRING SEMESTER

AMERICAN PERSPECTIVES (#15232)

Major semester course. 1.5 credits. Forms V-VI.

An extension of American Literature, this course enables students to examine different facets of the ever-evolving American literary heritage. Organized thematically, the course draws from the foundation of the junior-year survey course, focusing in depth on a particular movement, period, region, or theme. Possible works include a wide spectrum of literature, ranging from the earliest works of the Transcendentalists to selections from the current best-seller lists. Potential topics are equally varied: perhaps literary responses to the industrialization of the U.S. and attendant socioeconomic changes, the reaction of U.S. writers against the European literary establishment, the emergence of the African American voice during the Harlem Renaissance, or the evolution of Native American voices.

CREATIVE WRITING (#15012)

Major semester course. 1.5 credits. Forms V-VI.

This is a workshop course for students who want to get in touch with their writer's voice, who feel moved to express themselves through poems, stories, sketches, and other traditional forms of writing. The only prerequisite is the understanding that the romantic image of oneself as a writer is not enough; one must actually write. The assignments will be fun, exciting, expanding, sometimes scary, but they will be work. Every student will be expected to complete a writing exercise in preparation for every class meeting. Assignments will be supplemented with readings from the texts *Telling Stories* and *Literary Nonfiction* along with assorted poems, short stories, and handouts. Toward the end of the course, the short exercises will lead to the construction of a longer, more complex work. Students will be encouraged to submit their best pieces for publication.

CIVIL WAR STUDIES (#15246)

Major semester course. 1.5 credits. Forms V-VI.

Civil War Studies uses novels, poems, journals, speeches, and film to explore the causes and aftermaths of the war and its individual battles. A wide range of perspectives draws together modern writers such as E. L. Doctorow and Civil War veterans such as John W. De Forest. We will explore, from both Northern and Southern points of view, why the war was fought and why soldiers continued to fight, as well as how civilians responded to the war and how the war affected them. Finally, we will explore the battles themselves. Novels and poetry are selected to correspond to particular battles and are read in order of the battles. When we read Stephen Crane's *The Red Badge of Courage*, for example, we will examine battle maps of Chancellorsville and try to locate characters and events. Primary texts may include Crane's *The Red Badge of Courage*, Doctorow's *The March*, Nat Turner's *Confessions*, Nancy Rawles' *My Jim*, and William Faulkner's *The Unvanquished*. Background texts will include De Forest's *Miss Ravenel's Conversion*, Harriet Beecher Stowe's *Uncle Tom's Cabin*, Margaret Mitchell's *Gone with the Wind*, and Michael Shaara's *Killer Angels*. Poets include Walt Whitman, Emily Dickinson, Sidney Lanier, and Henry Timrod.

THE ETHICAL DILEMMA (#15152)

Major semester course. 1.5 credits. Forms V-VI.

This course looks at the ways in which writers have tried to make sense of a world that they find hostile and alien by portraying ethical people searching for guidelines in an unethical world. Because of the eclectic variety of poetry, novels, and plays, students will be exposed to a wide variety of styles and will have an opportunity to test a number of different critical approaches. Each work will be placed in its historical context with an analysis of the intellectual and artistic world in which it was written; there will be a particular attempt to show that literature is not created in a vacuum, that it is derived from the conditions of the world in which the author lived. Authors may include García Márquez, Ibsen, Shakespeare, Graham Greene, Oscar Wilde, and Maxine Hong Kingston.

LITERATURE & MADNESS (#15242)

Major semester course. 1.5 credits. Forms V-VI.

Our increasingly complex and chaotic modern world has inspired many writers to investigate the ways we live, often on the edge of sanity. This course will examine the ways in which fiction writers, poets, and dramatists have sought to explore connections between madness, insight, and art. We will seek to define the terms “madness” and “insanity,” drawing from popular culture as much as psychology and sociology, and then read the literature as it confirms or shatters those definitions. While some writers romanticize insanity, envisioning the mad as intuitive and profound, others use it as a metaphor for the individual’s struggle to survive society’s confining social codes and mixed moral messages. Still others attempt to objectively document the realities of mental illness. Reading selections may include works by Conrad, Gilman, Didion, Plath, Kesey, Sexton, Haddon, and Shaffer. Course projects will encourage students to think beyond the required reading and analyze the depiction of madness in contemporary books and films.

MAGICAL REALISM (#15122)

Major semester course. 1.5 credits. Forms V-VI.

This cross-cultural course is devoted to the literature whose basis is a world where archetypal magic is very much a facet of everyday life. The various literary and visual works from around the world will explore how the traditional issues of people confronting themselves, their societies, their environment, nature, and the metaphysical are influenced by a sense of wonder and magic. Besides the magical content of the course, the form of the works will also be examined within the context of the cultures that produced them. Artists who may be studied include Jean Rhys, Ang Lee, Isabel Allende, Franz Kafka, Toni Morrison, Gabriel García Márquez, and Laura Esquivel.

MYTH IN LITERATURE (#15112)

Major semester course. 1.5 credits. Forms V-VI.

For many years, especially in the 19th century, myths were dismissed as mere fictions. With the advent of modern psychology in the first decade of the 20th century, critics began to discover that myths pervade literature, assuming numerous guises and taking on different characteristics. Stripping away these guises, the critics discovered patterns and symbols with the power to move us deeply. Through both old and new literature, this course hopes to explore the nature of the mythic patterns which help people to orient themselves in a complex world of danger and temptation. The different families of myths which will be investigated include the resurrection myth, the hero myth, and the joker myth, as found in the Tristan legend and in the works of Conrad, Eliot, Shakespeare, Joseph Campbell, and Sigmund Freud.

NEW VOICES (#15042)

Major semester course. 1.5 credits. Forms V-VI.

Many of the books students read in school were written before they were born, often by people no longer alive. This course has been designed for the student who has been wondering, after reading some of the older classics, what serious writers of fiction are producing today. How are they mirroring the world in which we live, raising questions about our society and history, and illuminating contemporary experience as well as the diversity of our population? How can an educated reader begin to examine and evaluate today’s fiction, poetry, and drama, considering the politics and fashions of publishing, reviewing, and marketing? How can an interested young reader find out about the works of writers of his or her own generation? Readings are selected from works published within the last fifteen years that have provoked critical applause and controversy and that suggest a multiplicity of styles and approaches. In addition to writing essays on the literature, students will be encouraged to find connections between contemporary literature and contemporary life. Authors may include Dubus, Kushner, Lahiri, Morrison, and others.

PHILOSOPHY (#15035)

Major semester course. 1.5 credits. Forms V-VI.

What does it really mean to exist? What does it really mean to know something? How far can we trust our senses? What is the right way to treat each other, other animals, the environment? As people have used reason and logic (rather than their senses or emotions) to deal with these problems, they have created systematic answers and perspectives about the nature of the world. We call these philosophies. This course is designed to investigate some of the world's philosophies which have influenced the thinking of 20th-century Western cultures by reading primary source material, literary works which embody particular philosophies, and secondary commentary. The course begins with a brief look at the history of philosophy and an overview of philosophical method. Philosophers whose work may be sampled include Plato, Kongzi (Confucius), Laozi (Lao Tzu), Aristotle, Marcus Aurelius, Epictetus, Descartes, Locke, Hume, Kant, Hegel, Russell, and Singer. Philosophical novelists may include Pirsig, Hesse, Camus, Sartre, Dostoyevsky, Vonnegut, and Turgenev.

SHAKESPEARE (#15052)

Major semester course. 1.5 credits. Forms V-VI.

Was Shakespeare, as his contemporary Ben Jonson wrote of him, "not of an age but for all time"? This course will attempt to answer that question by providing an in-depth study of the playwright, five of his major plays, and a variety of secondary sources. The goals will be to explore the four types of plays Shakespeare wrote (tragedies, comedies, histories, and romances), to examine how Shakespeare was very much a man of his own time, and to consider the critical debate and inquiry that continue to surround the Bard. In addition to the plays themselves, students will read some literary history and criticism and write scholarly critical analyses themselves. Possible reading selections include the sonnets, *Twelfth Night*, *Hamlet*, *Henry IV Part I*, *Othello*, and *The Tempest*. Critical articles will generally be included in the required texts as well as in supplemental sources in the library.

FITNESS EDUCATION

The Pingry School's Fitness Education Program emphasizes all aspects of a student's physical well-being. Its mission is to educate each student to the importance of physical activity along with providing a positive, energetic, and safe environment in which to explore the various components of physical fitness.

Our teaching staff consists of certified strength and conditioning specialists with degrees in exercise sciences, qualified to answer most questions regarding fitness or nutrition. The Fitness center, where most of the classes take place, is considered one of the finest in the state. The program uses a hands-on methodology, where each student's goals are taken into consideration and integrated into a balanced approach encompassing strength training, cardiovascular conditioning, and flexibility development. The training philosophy of The Pingry School is that there are no shortcuts, quick fixes, or gimmicks to promoting good health and wellness. We encourage all students to work to their potential in the safest manner possible.

Four areas stressed within each Fitness Course:

- **Strength training:** Each student will fully understand the importance of improving and maintaining muscular strength as it relates to physical fitness and health.
- **Cardiovascular conditioning** may be either "steady state," or "interval training" as practiced on one of the stationary machines in the Fitness Center. All students will have some choice of modality, subject to staff approval.
- **Flexibility** is overlooked in many fitness programs. Each student will be exposed to various stretching methods, ranging from static isolated stretching for specific muscle groups to dynamic or movement drills designed to enhance body awareness and coordination.

- **Nutrition:** Although we are not nutritionists or dietitians, encouraging students to lead a healthy lifestyle and choose foods wisely is a main concern.

Pingry's Physical Fitness Requirement

All students in Form III (Grade 9) will be enrolled in Introduction to Physical Fitness. All students in Form IV (Grade 10) must be on a Pingry athletic team or enrolled in a Fitness class, Health, Dance, or Drivers Education during all three trimesters.

Students in Forms IV-VI the have the opportunity to fulfill their physical fitness requirement by performing a variety of activities of their choosing.

These activities must meet the following guidelines, which are in accordance with the American College of Sports Medicine (ACSM) recommendations for active individuals.

1. A minimum of 180 minutes (3 hours) of moderate to intense physical activity per calendar week.
2. Physical activity should be performed a minimum of 3 workouts or sessions per calendar week on separate days.
3. Exercise choices should include strength training, cardiovascular activities, and flexibility training.
4. All exercise sessions must be documented and submitted to the Fitness Department Director for review.

Approved Activities: The following courses and activities meet the Fitness Education requirement, and are pre-approved and require no documentation:

1. Fitness Education Class (#EDFIT)
2. A.M. / P.M Fitness class (Forms V-VI Only)
3. Movement For Actors (Trimester I only)
4. Pingry Musical (Trimester II only)
5. Pingry Dance Class
6. Hip Hop Dance (on campus)
7. Pingry Yoga Offerings
8. Participation on a Pingry Athletic Team
9. Off Season (on campus) Pingry team workouts

Other Activities: Students may apply for an exemption from an on-campus activity. The following activities may meet Pingry’s Physical Fitness Requirement.

1. Organized club sports team (out of play season), or activity (with a coach or instructor)
2. Off campus dance academies (with instructor)
3. Organized fitness programs with a professional trainer. * No gym memberships.

Students’ exemptions will be audited several times a trimester to insure compliance with the requirements outlined above. All students should keep accurate records of each exercise session. Students must submit the necessary documentation at the end of each trimester to the Fitness Department Director for review.

INTRODUCTION TO PHYSICAL FITNESS (#INTROFIT)

Form III. 1 trimester.

This course is designed to develop students’ basic understanding of the importance of physical fitness and how to incorporate it into their school lives.

Each component of physical fitness will be explained in great detail (nutrition, cardio-respiratory fitness, muscular strength, mindfulness / yoga, flexibility, and sleep and recovery) and students will learn various ways to improve their health and wellness by learning how to use the Fitness Center equipment (free weights, strength machines, and cardiovascular equipment) safely and with a purpose as well as the yoga and mindfulness meditation practices in the dance studio.

FITNESS EDUCATION (#EDFIT)

Forms IV-VI. 1 trimester.

In this course the student will build upon the previously learned concepts of physical fitness as well as learn how to develop and tailor an exercise routine suited to their individual goals. The intent of this class is to foster a passion for fitness while attending to the unique goals of each participant.

BEFORE-SCHOOL & AFTER-SCHOOL FITNESS PROGRAM (#AMFIT) (#PMFIT)

Forms V-VI. Offered only to students who have a full academic schedule (7 periods) and therefore no scheduled Fitness Education class. 1 trimester. Prerequisite: Introduction to Physical Fitness.

The before-school program begins at 7:00 A.M., the after-school program at 3:30 P.M.; each section meets Monday, Wednesday, and Friday. It is the understanding of the Fitness Center staff that all participants have had an introduction to the Center, know how the equipment works, and can work independently towards improving their fitness. Unlike the other courses, these programs have no formal class structure, but they are supervised and monitored.

HEALTH

The health program at Pingry is designed to develop specific skills that are essential to maintaining one’s health emotionally, socially, and physically. Emphasis is placed on the individual’s responsibility to make appropriate choices in order to meet this goal. Skills that are stressed include decision-making, problem-solving, communication, coping, and enhancing relationships. Students gain practice in applying these skills as various health topics are addressed. Topics are presented factually, in the recognition that only accurate knowledge can lead to suitable decisions. The classroom environment is viewed not only in an academic mode, but as a sociological group or collection of groups where students learn to develop and maintain mutually supportive relationships with peers. We believe that this skill development is essential to create a healthy, fully functional adult. Homework assignments, quizzes, projects, and tests are given in each course. Form III and IV students are required to take one trimester of Health. Health is letter-graded A, B, C, D, F.

HEALTH 9 **(#18305)**

1 trimester. 1 credit. Required of all Form III students.

The Health 9 curriculum is designed to teach students the information and skills they need to become health literate and maintain and improve health, prevent disease, and reduce health-related behaviors. The goal of the course is to help students become health literate individuals – individuals who are critical thinkers and problem solvers, responsible and productive citizens, self-directed learners, and effective communicators.

The following topics will be discussed, and students will have an opportunity to practice healthy decision-making skills and utilize resistance skills in each unit: stress management and relaxation techniques, care of the male and female reproductive systems, sexually transmitted infections, contraceptives, sexual responsibility, sexual orientation, consequences of binge drinking, drug and alcohol driving laws, and current trends in prescription, legal, and illegal drug use.

HEALTH 10 **(#18404)**

1 trimester. 1 credit. Required of all Form IV students.

The American Heart Association’s Healthcare Provider and First Aid courses are the topics of study for Form IV Health students. The Healthcare Provider course teaches the basic techniques of CPR and the use of an AED (automated external defibrillator). Students also learn to use barrier devices in CPR and give first aid for choking in the responsive victim. The course teaches how to recognize the signs of four major emergencies: heart attack, stroke, cardiac arrest, and foreign body airway obstruction. The First Aid course teaches students to effectively recognize and treat emergencies in the critical first minutes until emergency medical services personnel arrive. Topics covered include controlling bleeding, shock, diabetic emergencies, heat and cold related emergencies, seizures, stroke, and poisoning. Upon successful completion of the courses, students will receive certification cards from the American Heart Association.

HISTORY

The Pingry history curriculum is based upon the belief that a thorough and sophisticated knowledge of the past is vital to understanding and appreciating the complexity of human experience. History is much more than a recitation of the facts; it is a way of seeing and making sense of the world around us.

In addition to teaching students how to unlock the meaning of the past, the History Department introduces them to the concepts, vocabulary, and methodologies of the other social sciences, including economics and psychology. Throughout our curriculum, we expect students to: (a) compile, organize, and analyze facts effectively; (b) ask the types of questions posed by historians and other social scientists; (c) answer these questions logically after carefully considering the evidence; and (d) express their own judgments and conclusions in precise and literate ways. We also encourage students to exhibit imagination and curiosity, personal integrity, tolerance and respect for others, and a sense of civic responsibility. Our hope is that our students will become independent thinkers, capable of making informed decisions as citizens and leaders in a democratic society.

WORLD HISTORY 9: PREHISTORY–1750 (#11306)

Major year course. 3 credits. Form III.

This survey course introduces students to the ideas, practices, values, and achievements of the pre-modern world. Beginning with an examination of the Agricultural Revolution and the emergence of the first river valley civilizations, the course focuses on developments in the Middle East, the ancient Mediterranean, Asia, Africa, pre-Columbian America, and medieval Europe, culminating with the European Renaissance and Reformation and the beginnings of the modern world. Students learn that civilizations are entities that can be analyzed and evaluated, that they share certain characteristics, and that differences between them can be explained historically. They also learn that all civilizations undergo change and that they do so for specific reasons. The course emphasizes critical thinking and encourages the development of reading comprehension, note-taking, and writing skills. Students are introduced to the analysis of primary sources, including literary texts, artifacts, and visual art. Assessments include a research project and a final exam.

WORLD HISTORY 10: 1750–PRESENT (#11405)

Major year course. 3 credits. Form IV.

This survey course focuses on the development, between the 18th century and the present day, of a single, continually evolving world civilization. We explore European society's remarkable self-transformation, a process that involves the development of absolutism and constitutional monarchy, the French Revolution, the Industrial Revolution, and the emergence of the modern nation-state. We also examine how the world's oceans ceased functioning

as barriers between the separate civilizations and began operating as the means of uniting these civilizations, initially under European domination.

We focus not only on how Europe imposed itself and its rapidly changing values on the rest of the world, but also on the achievements of the peoples of Africa, Asia, and the Middle East, and on the creative ways in which the non-Western world has responded to European expansion and the forces of modernization. The course culminates with Europe's self-destruction in the first half of the 20th century and the emergence of a post-colonial world order in the second half-century. Class discussion centers on the analysis of primary sources and a wide range of historical scholarship.

AMERICAN SOCIETY & CULTURE (#11509)

Major year course. 3 credits. Form V.

Americans have often described their nation as a "melting pot." In recent years, many have questioned the accuracy and desirability of this metaphor. However, it is undeniable that American society and culture have been shaped by the experiences of Americans from diverse backgrounds. This course will examine American social history and the development of American culture, particularly issues relating to political and civil rights and equality, through the perspectives of different groups based on socio-economic status, religion, ethnicity, race, and gender. We will also examine how these forces ultimately affected politics and the exercise of political power. Primary documents, including literature and art, will play a key role in our study, as will experiential learning through field trips. Assessments include various research projects and a final exam.

Note: This course satisfies the U.S. History graduation requirement.

U.S. ENVIRONMENTAL HISTORY HONORS (#11007)

Major year course. 3 credits. Form V.

This course surveys the history of the United States from the colonial period to the present using the lens of environmental history as its organizing principle. Environmental history can be generally defined as a branch of historical analysis that focuses on the relationship between humans and their non-human environment. It is an approach that lends itself well to interdisciplinary work and thinking, particularly bringing in concepts and assumptions from the sciences and literature. This course is, however, a survey of U.S. history and as such moves in a chronological fashion, with major essential and historical questions that look at the human/non-human relationship within the context of American political, intellectual, and social history.

Note: This course satisfies the U.S. History graduation requirement.

A.P. UNITED STATES HISTORY (#11508)

Major year course. 3 credits. 4 class meetings, one of which will be 90 minutes, per cycle. Form V. Prerequisite: Departmental permission (past performance in history and other disciplines is taken into account).

This is a rigorous survey course designed to explore American history from the “discovery” of the Americas through Watergate and beyond, providing a perspective for informed citizenship. It covers many of the major events and developments of United States history. In the process, students learn to evaluate causes, analyze the interrelationships among events, and recognize the roots of present-day problems and issues. The analysis of primary and secondary source materials will serve as the basis of reasoned discussion.

Note: This course satisfies the U.S. History graduation requirement.

A.P. GOVERNMENT & POLITICS (UNITED STATES, COMPARATIVE) (#11920)

Major year course. 3 credits. Forms V-VI. Prerequisites: Departmental permission (past performance in history and other disciplines is taken into account) and either American History and Culture or A.P. U.S. History.

This course is divided into two sections: American Government and Politics, and Topics in Comparative Government.

The first part of the course is designed to provide students with a college-level introduction to American government. Building upon skills and information gained in the U.S. History course, the course centers upon the governmental institutions and recent (post-1960) political developments of the United States. Among the topics covered are the constitutional underpinnings of U.S. government; the political beliefs and behaviors of individuals, political parties, and interest groups; the roles of the formal and informal institutions of government; civil liberties; and current affairs. The emphasis is upon the analysis of the processes involved in the making of public policy. Readings will include American Government (Wilson and Dilulio), source documents, and the current press. Students must sit for the A.P. exam in United States Government and Politics.

The second part of the course is a college-level study of various topics in comparative government. It acquaints students with the governmental institutions and political life of other nations and examines some of the problems in contemporary world affairs. Among the nations that may be studied are Great Britain, France, China, Russia, and Mexico. Readings include Comparative Politics at the Crossroads (Kesselman, Krieger, and Joseph), source readings, and the current press.

POSTWAR AMERICAN CULTURE, 1945–1965 (#E11520F FOR FALL, #11520S FOR SPRING)

Major year course (3 credits) or fall semester only (1.5 credits). Forms V-VI. Students who wish to take the full year course should sign up for both semesters. Honors.

The contours of contemporary American life first took shape in the two decades immediately after the end of World War II. Rather than follow the usual chronological divisions of the traditional postwar survey course, we focus intensively on a series of key topics: suburbia and its discontents; the political and cultural impact of anticommunism; the “affluent society” and its critics; race and the civil rights revolution; changing conceptions of sexuality and the role of women; rock ‘n’ roll and the impact of the new youth culture; avant-garde movements in the visual arts and music; religion, philosophy, and the “age of anxiety”; and the bohemian challenge to “conformity.” The course makes extensive use of fiction, film, and music, as well as contemporary social criticism and autobiography. Students are expected to read carefully and critically; frequent short papers, as well as occasional research projects, are required.

A.P. EUROPEAN HISTORY (#11510)

Major year course (3 credits). Forms V-VI.

This challenging AP curriculum surveys the course of modern European history from the late Middle Ages to the fall of the Soviet Union. Students will explore the major political, social, intellectual, cultural, and economic trends of this history and emerge with knowledge equivalent to that gained in a college-level introduction to Western Civilization. Some classes will be lecture-based, covering content required by the AP Exam, but many will rely on discussion informed by readings in primary sources, historiography, and literature. Students will read major works of the modern European literary canon, including Machiavelli's *The Prince* (1513), Voltaire's *Candide* (1759), Joseph Conrad's *Heart of Darkness* (1902), and George Orwell's *Nineteen Eighty-Four* (1949). This course also uses visual resources in film and art history to provide cultural context for the significant themes and events of modern Europe. Writing assignments will focus on developing skills of critical thinking, synthesis, interpretation, and primary source analysis. Students will emerge with a thorough understanding of European history and the development of Western civilization, as well as with concrete skills in written and oral communication.

CHINA AND MODERN EAST ASIA (11511)

Major year course (3 credits). Forms V-VI. Honors.

After the upheavals of revolution and war in the twentieth century, China and Japan continue to play crucial roles in shaping the modern world. In this course we will examine the development of East Asian history and culture from the mid-nineteenth century to the present day, with a particular emphasis on China and Japan.

Some of the questions we will consider include: How did China and Japan evolve in the face of Western power in the nineteenth century? What was the social impact of modernization? Why did World War II begin as a war between Japan and China, and what were the long-term consequences of that terrible conflict on the region? Why did East Asia then become the primary battlefield of the Cold War, in Korea and Vietnam? What was the impact of Mao Zedong's leadership on China, and how is his legacy still felt today? Why and how have East Asian nations become economic powerhouses in recent decades? Ultimately we will ask: will the twenty-first century indeed be "the Pacific century"?

In addition to historical sources, we will make significant use of modern fiction and film in this course, including authors such as Lu Xun and Yu Hua of China, and Natsume Soseki of Japan. Students will also have the opportunity to conduct independent research on a topic of interest related to the region. Finally, the class will engage in frequent discussions of current events, both in person and online via a course blog.

A.P. PSYCHOLOGY (#11905)

Major year course. 3 credits. Forms V-VI.

This course introduces students to the study of psychology as a social science by focusing on the behavioral and mental development of humans and other animals. To that end, students learn the basic skills of psychological research, including elementary statistics; each semester they design and conduct research projects and report their results, following the guidelines of the American Psychological Association. Through lectures, group projects, films, class exercises, and assigned readings in the text and professional journals, the course covers the following topics in the depth: the history of the discipline of psychology; the biological and physiological bases of behavior, including a detailed study of the brain, sensation, perception, and memory; states of consciousness; learning theory; motivation and emotion; developmental theory; language, thought, and intelligence; personality development; psychological disorders and psychotherapy; and social psychology. Assessments include a research project and a final test.

HISTORY OFFERINGS		
	FULL YEAR	
	SEMESTER 1	SEMESTER 2
FORM III (9)	WORLD HISTORY 9	
FORM IV (10)	WORLD HISTORY 10	
FORM V (11)	AMERICAN SOCIETY & CULTURE ENVIRONMENTAL US HISTORY AP US HISTORY	
	ELECTIVES	ELECTIVES
FORM VI (12)	ELECTIVES	
	ELECTIVES	ELECTIVES

MATHEMATICS

The mathematics program at Pingry guides students in developing critical thinking and problem solving skills through the application of mathematical concepts. Students develop an appreciation and an understanding of mathematics as they engage in exploration, collaboration, conjecture, and proof. The curriculum is based on solving problems as not only a desired outcome but as a part of the learning process.

In teaching mathematics we aim to help students:

1. develop a strong conceptual understanding of various essential topics in mathematics. This includes such concepts as number, operation, equation, function, relation, congruence, and similarity;
2. practice pattern recognition and critical thinking;
3. collaborate with peers to explore new concepts, discover models and patterns, and engage in solving difficult problems;
4. develop oral and written communication skills such as asking useful questions, developing convincing arguments, and justifying one's own reasoning;
5. use technology to explore mathematics and assess when and where individual tools will be most effectively employed.

A Pingry graduate should be able to understand how to convey mathematical logic using symbols, graphical representations, written language, and oral expression. This fosters the ability to adapt to dynamic environments in college and beyond.

INTERMEDIATE ALGEBRA (#13327) (PREVIOUSLY ALGEBRA 2)

Major year course. 3 credits. Form III.

This course covers the second half of a traditional algebra sequence. The course begins with equation-solving and factoring and continues through quadratics and radical equations. The course emphasizes theory and solutions to quadratic equations and inequalities. Functions and co-ordinate geometry are discussed.

INTERMEDIATE ALGEBRA & GEOMETRY (#13307) (PREVIOUSLY MATH 2-A)

Major year course. 3 credits. Form III.

Prerequisite: Permission of the Department Head.

This course covers the material found in Intermediate Algebra and in the first half of Geometry. It is designed for those Form III students who have excelled in Algebra 1, or for Form III students new to Pingry who are not placed in Geometry. This course is the first part of a three-course accelerated track allowing a student to take Calculus as a senior. The next course in this sequence is Geometry & Advanced Algebra.

GEOMETRY (#13426)

Major year course. 3 credits. Forms III-IV.

Prerequisite: Intermediate Algebra.

Geometry is an integrated course in plane and solid geometry which begins with a brief history of geometry and a discussion of logic and methods of proof. The usual theorems of Euclidean geometry are studied, and at appropriate times the natural extensions of solid geometry are made. Students are not required to memorize the proofs of theorems, but are expected to be able to construct good proofs of original problems. Much work is done with "numericals," and considerable skill in algebra is necessary.

ADVANCED ALGEBRA & TRIGONOMETRY (#13416 FOR FORM IV, #13527 FOR V) (PREVIOUSLY ALGEBRA 3 & TRIGONOMETRY)

Major year course. 3 credits. Forms IV-V.

Prerequisites: Geometry.

This is a course in modern algebra and trigonometry which continues the work in Algebra and Geometry. Logarithmic and exponential functions are covered in detail. A full examination of the topics in trigonometry is presented. Analytic geometry is introduced, including work with conic sections.

GEOMETRY & ADVANCED ALGEBRA (#13425) (PREVIOUSLY MATH 3-A)

Major year course. 3 credits. Form IV.

Prerequisite: Intermediate Algebra and Geometry or permission of the Department Head.

This course is the second year of a three-year program leading to Calculus as a senior. This course covers the second half of the material covered in plane and solid geometry. It then covers the material in Advanced Algebra up to but not including trigonometry.

Note to all students taking Advanced Algebra or above: The Mathematics Department has incorporated the use of graphing calculators into its courses. The TI-83 or TI-84 is recommended and should be acquired by all students.

PRE-CALCULUS (#13535) (PREVIOUSLY MATH 4A)

Major year course. 3 credits. Form V.

Prerequisite: Geometry & Advanced Algebra or permission of the Department Head.

This is an integrated course in advanced algebra and trigonometry, whose unifying link is the concept of function. A great deal of analytic geometry is studied, in addition to advanced algebraic and trigonometric functions. To prepare students to continue their studies with calculus in their senior year, the elements of limits and differential calculus are introduced.

ADVANCED PRE-CALCULUS (#13516) (PREVIOUSLY ANALYSIS)

Major year course. 3 credits. Form V. Prerequisite: Advanced Algebra & Trigonometry.

This course is designed for students who plan to study calculus. The concepts of sets, logic, function, numbers and number systems, trigonometric functions, analytic geometry, limits of functions, limits of series and sequences, and vectors are some of the topics covered. The concepts of differential calculus are covered in detail through trig functions and their derivatives. Maximum/minimum and related rate word problems along with curve sketching are also discussed.

ANALYSIS (#13617)

Major year course. 3 credits. Form VI. Prerequisite: Advanced Algebra & Trigonometry.

This course prepares students for further study of mathematics in college. The concepts of function, numbers and number systems, trigonometric functions, analytic geometry, limits of functions, series and sequences, and combinatorics are some of the topics covered in Analysis. Early concepts of differential calculus are covered, including curve sketching of rational functions.

A.P. CALCULUS AB (#13619)

Major year course. 3 credits. Form VI. Prerequisite: Advanced Pre-Calculus or Pre-Calculus and permission of the Department Head. A minimum average of B+/A- in Advanced Pre-Calculus is expected.

This course is equivalent to a one-semester college freshman course in calculus. Course content follows the A.P. outline for AB Calculus. Students are required to sit for the AB Calculus A.P. exam in May.

A.P. CALCULUS BC (#13629)

Major year course. 3 credits. Form VI. Prerequisite: Advanced Pre-Calculus (with an expected average of A or A+) and permission of the Department Head.

This course is equivalent to a full-year college freshman course in calculus. Course content follows the A.P. outline for BC Calculus. Students are required to sit for the BC Calculus A.P. exam in May. This course is very rigorous and suited for students who wish to pursue math or science in college.

CALCULUS (#13618) (PREVIOUSLY CALCULUS & ANALYTIC GEOMETRY)

Major year course. 3 credits. Form VI.

Prerequisite: Advanced Pre-Calculus or Pre-Calculus.

This course is designed for seniors who wish to improve their algebraic and analytic geometry skills first, and then study the differential calculus of algebraic functions and integral calculus. Topics such as related rates, maximum-minimum curve-sketching, and area under a curve will be included. This course does not prepare students for Advanced Placement.

MATH 6: MATHEMATICS SEMINAR (#13640)

Major year course. 3 credits. Honors. Form VI. Open to students who have successfully completed BC Calculus and who have demonstrated a high level of ability in mathematics, by permission of the Department Head.

This course starts as a third-semester college calculus course and then explores other selected topics, including higher-order differential equations, volumes and areas related to curved surfaces, linear algebra, and computer programming for all topics. A full discussion of mathematical statistics is also included.

DISCRETE MATHEMATICS (#13656)

Major semester course. Offered in fall. 1.5 credits. Honors. Open to students who have completed A.P. Calculus or by permission of the department head. Discrete Mathematics may not be taken concurrently with Math 6.

This course introduces discrete mathematical structures such as propositions, sets, graphs and trees. It uses a formal approach to discuss the language used in mathematical reasoning, and the basic concepts, properties and relationships among the discrete objects. Students will be introduced to the idea of mathematical thinking with different methods of proofs, and they will learn to recognize and express the mathematical ideas graphically, numerically, symbolically, and in writing. Real world applications of these discrete objects such as logic gates in computers, traffic routing and scheduling will also be covered in this course. No previous computer science experience is required.

NUMBER THEORY (#13655)

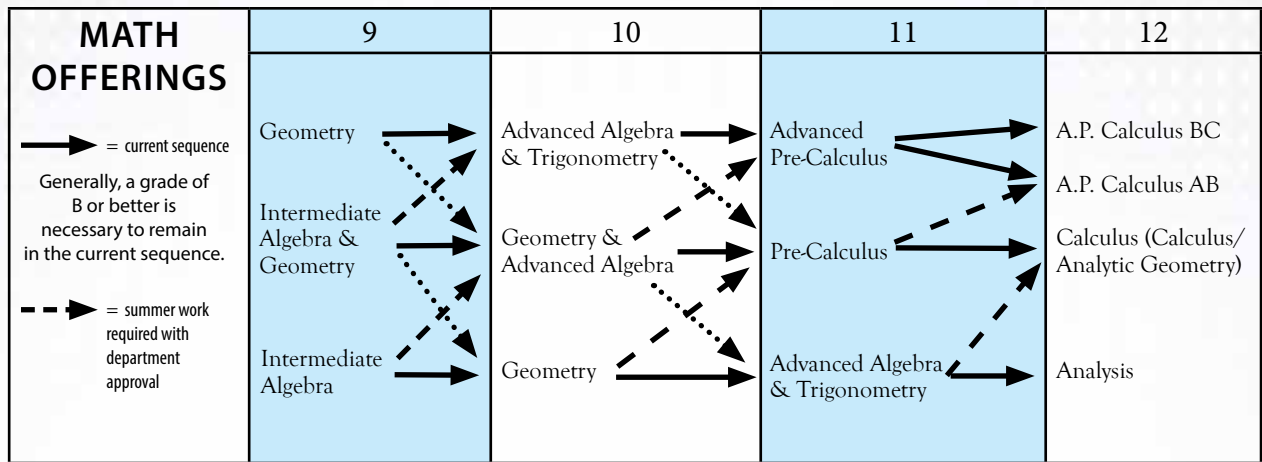
Major semester course. Offered in spring. 1.5 credits. Honors. Open to students who have completed A.P. Calculus or by permission of the department head. Number Theory may not be taken concurrently with Math 6.

Number theory is the study of the set of natural numbers, from which all other numbers are based. A closer look at this seemingly simple set of numbers reveals that there is more to the natural numbers than meets the eye. Students will explore the rules of operations in this set of numbers and build higher levels of conceptual awareness through the exploration of algorithms and modular arithmetic. While exploring these concepts, students will develop an understanding of the various proof techniques in mathematics and build proofs of their own. Students will also explore applications of number theory, including applications of modern-day cryptography, and how they stem from the core concepts in number theory.

A.P. STATISTICS (#13641)

Major year course. 3 credits. Form V-VI. Prerequisites: B+ or better in Advanced Pre-Calculus, A- or better in Pre-Calculus, or permission of the Department Head.

This course introduces students to the tools and concepts of exploring data, planning a statistical study, producing models using statistics and probability, normal distributions, sampling distributions, and statistical inference. A.P. Statistics is the equivalent of a one-semester college-level introductory statistics course and meets the requirements outlined by the College Board. Students enrolled in the course must take the Advanced Placement exam in May.



ECONOMICS:

ECONOMICS COURSES DO NOT SATISFY THE MATHEMATICS GRADUATION REQUIREMENT.

PRINCIPLES & ISSUES

(#11779F FOR FALL, #11779 FOR FULL YEAR)

Major year course (3 credits). Forms V-VI.

This two-semester course is an introduction to basic economic concepts and principles. Students will learn to apply these concepts and principles to current economic issues and global events. Some of the major areas of focus are the (recent) financial crisis, economic goals, externalities, poverty, globalization, and what makes an economy function to the best of its ability. Students are introduced to supply and demand analysis, fiscal and monetary policy, and trade. A class company which the students develop and manage is usually established with company profits going to a charity of the students' choice. Students who complete this course may wish to further their study of economics through enrollment in AP Economics in their senior year; however, this course is not a prerequisite for admission to the AP course.

A.P. MACROECONOMICS & MICROECONOMICS

(#11777)

Major year course. 3 credits. Form VI. Prerequisite: Departmental permission (past performance in history, mathematics, and other disciplines is taken into account).

This course is the equivalent of two semesters of college-level economics. The course will cover macroeconomic principles such as supply and demand, inflation, unemployment, and fiscal and monetary policy, as well as microeconomic topics including the nature and function of product markets, price determination, perfect and imperfect competition, efficiency, equity, stability, growth, and the role of government. Assessments include a final test covering both macroeconomics and microeconomics.

MUSIC

Organized music had its official start at Pingry with the formation of a few groups in an all-boys' school: the Band, the Glee Club, the Buttendowns (a small singing group), and the Middle School Chorus. Since those days, the program has expanded to include over a dozen performing groups, extensive girls' groups, and an Advanced Placement course. The Department now consists of three full-time faculty. In addition, ten adjunct teachers provide private voice and instrumental lessons during the day. The program has been successful — some 300 students are involved, over one half of the Upper School.

Our goal is to provide the opportunity to experience music in many aspects so that students become lifelong appreciators of and participants in music. The program is founded on the belief that human expression is an integral part of life, and experiences in the arts, including music performance, are essential to a holistic education. A high level of performance is expected of all of our performing groups. All instrumentalists, Balladeers, and Buttendowns are expected to be enrolled in private lessons. The Music Department does provide support for students who chose to audition for New Jersey All-State Orchestra and Chorus.

CONFERENCE PERIOD ORCHESTRA/ WIND SINFONIA (#14701)

*Minor year course. 1 credit. 2 class meetings per week.
Graded on a pass/fail basis.*

Wind Sinfonia is comprised of all woodwind (flute, clarinet, saxophone, oboe, bassoon, etc.), brass (trumpet, trombone, french horn, tuba, etc.), and percussion (timpani, bass drum, mallets, etc.) instrumentalists of the Upper School. The Wind Sinfonia performs works from various musical periods while focusing on the vast repertoire for symphonic bands. All brass players in Wind Sinfonia are also members of the Brass Choir.

The Upper School Orchestra is comprised of string players. Musical skills are refined by the preparation and performance of challenging repertoire ranging from Baroque through Romantic. The Orchestra and the Wind Sinfonia both perform at all major concerts during the year.

UPPER SCHOOL GLEE CLUB (#14704/14714)

Minor year course. 1 credit. 3 class meetings per cycle, 1 of them during Conference Period. Membership in this group is required for concurrent membership in Balladeers/Buttendowns.

Students in the glee clubs study the master works of the choral-orchestral repertoire as well as music from a variety of periods, cultures, and styles. Through rehearsal and performance, students develop their vocal abilities, sight-singing skills, and sense of ensemble. Study culminates in performances, often with full orchestra and brass choir for the school festivals. There are also many collaborative concerts with other schools. No audition is necessary.

CONFERENCE PERIOD GLEE CLUB (#14705/14703)

*Minor year course. 1 credit. 2 class meetings per week.
Graded on a pass/fail basis.*

The mission of the Pingry School Glee Clubs is to experience the joy of making music together. Main goals include training singers to “use their voices with versatility, ease, endurance, and without discomfort in the throat” (from *How to Train Singers*, 2nd Edition). Vocal techniques are developed through awareness of proper posture, breath management, resonance, all while being free of tension in the body and vocal tract. In addition, stage presence is developed through consistent concert opportunities. Through consistent practice and encounters with varied and substantive repertoire, our students develop their individual potential and self-reliance, all within an atmosphere of trust and support. We strongly believe that through encounters with beautiful music, our students learn to be creators of something beautiful and ultimately become responsible and compassionate citizens. Repertoire in recent years have included selections from both the Western Classical and World traditions.

JAZZ ENSEMBLE (#14755)

*Minor year course. 1 credit. 4 class meetings per cycle.
Prerequisites: Membership in good standing in the Wind Ensemble and permission of the Director.*

A class for moderate to advanced players comprising a band of saxophones, trumpets, trombones, piano, bass, drums, and guitar. The main emphasis in Jazz Ensemble is on ensemble interpretation and performance. Through rehearsal, performance, and study of various arrangements from the jazz repertoire the student will learn the musical vocabulary necessary to play swing and to improvise. The Ensemble performs for school events and concerts as well as for community service events in and out of school. Previous work in theory is helpful. This is a graded course.

BUTTONDOWNS / BALLADEERS (#14764 / #14774)

*Minor year course. 1 credit. 4 class meetings per cycle.
Prerequisites: Membership in good standing in the Glee Club and permission of the director.*

In this ensemble, students work with equally motivated peers to achieve excellence in the performance of choral music. A wide variety of literature is studied with the aim of learning many styles of music. Through intensive rehearsals and performances, students develop and refine their vocal abilities, sight-singing skills and sense of ensemble. Students in Buttondowns/Balladeers are expected to perform mostly unaccompanied repertoire at the highest artistic level possible. Members study and perform choral-orchestral repertoire through their participation in Glee Club. These are graded courses.

Audition is required.

A.P. MUSIC: THEORY (#14919)

*Major year course. 3 credits. 4 class meetings per cycle.
Forms V-VI. Prerequisites: Basic familiarity with the fundamentals of music notation and permission of instructor.*

The goal of this course is to develop a student's ability to listen and understand the processes of music that are heard or read in a score. At the conclusion of the course the student will be expected to take the Advanced Placement Music examination given by the College Board.

Departmental approval is required.

SCIENCE

Although the specific topics of science courses differ, they all have a common purpose: to prepare the student to think scientifically. The student's understanding of nature and ability to handle the tools of science develop as the courses become increasingly sophisticated.

- The Department maintains a very heavy emphasis on building student skills that enable the students to grow into more sophisticated thinkers. Classroom activities, labs, and tests are designed with components that require application of learned items in new situations and synthesis of knowledge with other concepts in addition to simple recall and comprehension exercises. The proportion of higher-level thinking exercises increases with grade level, as students build upon the foundations established in previous courses. This emphasis on the growth of critical thinking skills enables students to develop to their full potential and begin to become self-reliant learners.
- The Department places an emphasis on active learning by students, making students a partner in their own education. This is accomplished by conducting highly interactive classes where questions are encouraged, by using group response techniques (voting on questions, responding via whiteboards, writing answers to questions in notes, and frequently designing group/cooperative learning exercises). Labs are also, when possible, constructed so that students are able to participate in the design of the procedure (when safety concerns do not present an insurmountable barrier).
- All members of the Department are enthusiastic about science and science teaching, and that enthusiasm is visible to the students. It results in a positive feeling-tone in the classroom, the creation of "discovery" exercises where teachers aim to share the sense of awe and excitement that generated their own interest in science, and increased student motivation. The Department members exhibit a passion for excellence that is exemplified by an ongoing commitment to intellectual exploration and intellectual play, and, importantly, their students often adopt the behavior they model.
- All members of the Department go the extra mile in order to get to know each student, and often design approaches with a particular student's learning style in mind, both in the classroom and in extra-help sessions.
- The Department has the knowledge and resources to make use of advanced technology, both instructional and scientific, in the classroom and the lab. CBL data collection, spreadsheet simulations and data regression, video capture, and specific high-tech equipment for labs are employed, often in ways that give students hands-on experience with sophisticated devices.
- The Department members model moral and ethical behavior in their classrooms and in other interactions with students, both in groups and individually. Ethical decisions and social responsibility are discussed in the appropriate context, with a particular emphasis on the necessity of scientific literacy in making these decisions in the modern technological world.
- In order to facilitate student development, the Department members maintain a free exchange of ideas and material from colleague to colleague. Teachers are friendly and professional in the way they behave with one another, and they take every opportunity to share resources and engage in intellectual dialogue. Teachers often attend each other's classes (in full or in part) or just discuss the high and low points of each day in order to exchange ideas about presentation of subject material or teaching techniques. This leads to a Department that is aware of new strategies in their disciplines, and agile enough to adapt to change where it is perceived to be beneficial.
- Generally science courses meet four times per cycle. Three meetings are 90 minutes in length.

Notes on Requirements

A minimum of two years of a laboratory science, including Chemistry 1 (semester) and Biology 1 (semester) is required for graduation. The Science Department also offers college-level Advanced Placement courses, open to selected seniors. Selection is by Departmental approval after considering a student's demonstrated high scientific aptitude and achievement. Seniors are given enrollment priority over qualified juniors.

Honors Courses: Biology 1 students who meet certain criteria may attempt to achieve an Honors designation. Honors Biology 2/Chemistry 2 and Honors Physics 1 are open only to selected students.

Please note that the selection criteria for Honors Biology 2/Chemistry 2 and Honors Physics encompass more than just the science grade from the previous year. As evaluated by a Departmental aptitude test, grades and effort in other subjects (particularly math and science), and teacher comments, students must have demonstrated (1) quick comprehension and insight; (2) strong problem-solving skills and the ability to make logical connections; (3) the ability to present well-reasoned arguments in a clear, organized fashion; (4) sound fundamental study skills and consistent motivation; and (5) good spatial-relation skills.

Chem/Bio/Bio/Chem Sequence

Freshmen at Pingry will normally take our four-semester Chemistry/Biology sequence, which consists of Chemistry 1 in the fall of freshman year, Biology 1 in the spring of freshman year, Biology 2 in the fall of sophomore year, and Chemistry 2 in the spring of sophomore year. Descriptions of these courses are below. Students who are interested in science and have been successful in Chem 1 and Bio 1 are invited to register for Honors Bio 2/Chem 2. The Department will select students for

this sequence from among registrants based upon criteria enumerated elsewhere. Students may earn an Honors designation in Biology 1 through the procedure described under "Notes on Procedures and Requirements."

Important Note: An alternative sequence is to take Conceptual Physics in freshman year, then the Chem/Bio/Bio/Chem sequence in sophomore and junior years. This sequence is strongly recommended for students who wish to develop their problem-solving and mathematical skills in a concrete environment before encountering the more abstract realm of chemistry. Students registered for Intermediate Algebra or Intermediate Algebra & Geometry during their freshman year should seriously consider this alternative, as should students with a math grade of B– or below in Form II.

The Pingry School Science Research Program

The Pingry School is committed to providing students with the most relevant and realistic exposure to the world of science and research. Our core curriculum, elective courses, and extracurricular experiences work together to create a complete experience for students. All components of the program seek to expose students to scientific literature, encourage students to research answers to novel problems, think critically about experimental design, analyze data, and present their findings. Hands-on participation in lab is essential. Key components of the Pingry School Research Program include the Waksman Student Scholars Program, the S.M.A.R.T. Team Program, the Independent Projects in Molecular Biology (iRT), Journal Club, and the Introduction to Research Design and Methods elective course. Each is headed by a member of the science faculty and targets a specific component of the overall research experience. Together, they serve to provide students with a comprehensive experience.

SCIENCE OFFERINGS

FORM III 9	FORM IV 10	FORM V 11	FORM VI 12
Introductory Physics	Chemistry 1/Biology 1	Biology 2/Chemistry 2 Honors Bio 2/Honors Chem 2 Anatomy & Physiology Science for the 21st Century Hon. Environmental Science	Anatomy & Physiology Science for the 21st Century Hon. Environmental Science Intro to Scientific Research* Physics Honors Physics AP Biology** AP Chemistry**
Chemistry 1/Biology 1	Biology 2/Chemistry 2 Honors Bio 2/ Honors Chem 2	Anatomy & Physiology Science for the 21st Century Hon. Environmental Science Intro to Scientific Research* Physics Honors Physics AP Biology** AP Chemistry**	Intro to Scientific Research* Anatomy and Physiology Science for the 21st Century Hon. Environmental Science Physics Honors Physics AP Biology** AP Chemistry** Advanced Physics*** AP Physics - Mechanics*** AP Physics - Electricity & Magnetism***

Notes:
Table shows typical course progressions, not all possible options. Students should seek advice from science faculty.
Electives are open to students in Forms V and VI.
***Prerequisite: Biology 2/Chemistry 2**
****Pre- or Co-requisite: Physics**
*****Prerequisite: Physics**

CHEMISTRY 1: BONDING & REACTIVITY (#17405)

Major semester course. 1.5 credits. Form III (fall) or Form IV (fall).

In Chemistry 1, the concepts of the structure and interaction of matter are explored in detail. The nature of matter, early observation-based laws, atomic theory, the electronic structure of the atom, periodic properties and trends, VSEPR and orbital hybridization, nomenclature, reaction writing, and reactivity theories (principally acid-base and oxidation-reduction) are discussed. Examples come from inorganic and organic chemistry, with the organic examples providing a basis for the chemistry of life as explored in subsequent biology classes.

A coherent understanding of the fundamentals of chemistry is essential to the full appreciation of more advanced chemistry as well as molecular biology. The foremost intent of this class is to provide students with the skills, vocabulary, and spatial visualization tools required to develop this understanding. A great deal of importance is placed upon the development of critical thinking skills and a thorough understanding of the underlying concepts and connections that give rise to particular chemical and physical phenomena; factual recall and memorization of problem-solving processes is deemphasized. This course has very little quantitative content and includes extensive laboratory work intended to develop proper technique and observational skills.

The course ends on the last day of December prior to Winter Break.

BIOLOGY 1: THE MOLECULAR BASIS OF LIFE & CELLULAR BIOLOGY (#17304)

Major semester course. 1.5 credits. Form III (spring) or Form IV (spring). Prerequisite: Chemistry 1 or consent of the Department.

Biology 1 is an introductory biology course with a strong emphasis on molecular biology, concentrating on depth of knowledge and understanding rather than breadth of coverage; it is not a typical survey course. This course and Biology 2 are required for graduation. (For students entering after ninth grade or with a previous year-long biology course, the graduation credit may be satisfied by a course taken previously at another school, or by A.P. Biology at the discretion of the Department.) The course is designed to provide a smooth transition for Middle School students to the study of a specific scientific discipline as well as assist them in developing higher-level thinking skills. The course analyzes fundamental biological processes on different scales. As topics are introduced, emphasis is placed on presenting a framework of knowledge for the student to utilize in solving problems while employing deductive and inductive reasoning.

By using current research and online resources (NCBI, the RCSB's Protein Data Bank, and molecular modeling software), the course integrates topics including the chemical and molecular basis of life, cell composition and function, cellular energetics, and the molecular biology of the gene. Labs are designed to be inquiry-based and encourage students to design and run original experiments

to test their own predictions. In this way students are not merely taught scientific methodology, but actually emulate the process by which scientific research is done. The focus of the lab experience is student-generated exploration and expansion of concepts through hands-on experience. Additionally, the instructors seek innovative ways to facilitate student understanding with online testing, essay writing, project-based learning, and the use of various Internet resources such as student-generated wikis.

Honors: Students in Biology 1 may elect in January to attempt to attain an Honors designation if they earned an A– or higher in Chemistry 1 or an average of A– in all five academic courses during semester 1. To earn an Honors designation, students will be required to

1. attend additional classes during the semester;
2. submit several additional projects assigned by the Department (e.g., research papers, essay responses to questions) that reflect deeper understanding of the material in the course;
3. pass a test on advanced concepts a few weeks before final exams at a high level of competency;
4. maintain a B+ or higher average in the course throughout the year (if the average falls below B+, the student will have one test to restore it to the required level);
5. display the interest, enthusiasm, and curiosity about science expected of an Honors student.

Students must complete all additional requirements satisfactorily to achieve the Honors designation. Students are permitted one “second chance” if a project or test is unsatisfactory; a second unsatisfactory project or test will result in the Department’s withholding the Honors designation. (The unsatisfactory test or project must also be redone satisfactorily.)

BIOLOGY 2: ENERGETICS & ADAPTATION (#17307)

Major fall semester course. 1.5 credits. Forms IV-V.

The second half of introductory biology investigates metabolism, nuclear division by mitosis and meiosis, inheritance, population genetics, evolution, and comparative anatomy. The course seeks to enhance a student’s basic knowledge of biology in an evolutionary framework. Students will develop a thorough understanding of the underlying concepts of biology as well as the ability to synthesize the knowledge necessary to understand the forces that shape organisms. They will acquire laboratory skills including experimental design, hypothesis testing, manipulating organisms (both live and preserved), and communicating results.

The course ends on the last day of December prior to Winter Break.

CHEMISTRY 2: QUANTITATIVE CHEMISTRY (#17404)

Major spring semester course. 1.5 credits. Forms IV-V.

The second half of introductory chemistry investigates gas laws, stoichiometry, acid-base theory, thermochemistry, chemical equilibrium, rates of reaction, and electrochemistry. The course seeks to enhance a student’s basic knowledge of descriptive chemistry while emphasizing the growth of critical thinking and problem-solving skills. Students will develop a thorough understanding of the fundamental concepts and forces that give rise to particular chemical and physical phenomena. Laboratory exercises are designed to acquaint the student with scientific methods and procedures of analytical qualitative and quantitative chemistry.

HONORS BIOLOGY 2 MECHANISMS OF CANCER (#17309)

Major fall semester course. 3 credits. Forms IV and V. Open to selected students

Students apply for Honors Biology 2 near the end of freshman year and are selected by the Department according to criteria enumerated above. Acceptance into the course is based on prior performance in foundational courses such as Chemistry 1, Biology 1, and mathematics. Participation in the Biology 1 Honors Projects may also be considered but is not a determining factor. Honors students are expected to have quicker comprehension and insight, more consistent intellectual dedication and maturity, and a greater facility for making logical connections.

The Biology 2 course is predominantly project-based and requires a substantial commitment from the student. This is a semester-long course designed for organized and highly motivated students who seek a more in-depth understanding of modern molecular biology. This class shifts the scope of learning from the specific modalities of gene expression to larger, systemic human views. The class is taught through the lens of cancer so that students learn first how normal biological systems function and then how mistakes in that system generate this disease state. Foundational information from Biology 1 is built upon as students are taught to focus their research on primary scientific literature and prepare presentations of breakthroughs in modern molecular biology. The course also requires students to synthesize a deeper understanding of topics such as the cell cycle, sexual reproduction, molecular genetics, heredity, and evolution by integrating information from a variety of sources and focusing on their relevance to society as a whole. Students will learn the necessary skills of a successful scientist such as accessing primary data, evaluating novel and previously unseen problems, dealing with science in the popular media, and effectively communicating what they have learned.

HONORS CHEMISTRY 2 (#17408)

Major spring semester course. 3 credits. Forms IV and V. Open to selected students.

Students apply for honors Chemistry 2 near the end of freshman year and are selected by the Department according to criteria enumerated above. Acceptance into the course is based on prior performance in foundational courses such as Chemistry 1, Biology 1, and Math. Participation in the Biology 1 Honors Projects may also be considered but is not a primary factor. Honors students are expected to have a higher degree of mathematical sophistication, quicker comprehension and insight, more consistent intellectual dedication and maturity, and a greater facility for making logical connections.

Honors Chemistry 2 is a second semester course designed for motivated students who are interested in and prepared for a more in-depth study of chemistry. A heavy emphasis is placed on the detailed understanding of the fundamentals of quantitative chemistry, including the mastery of stoichiometry, acid-base theory, chemical equilibrium and kinetics, colligative properties, thermodynamics, and the behavior of ideal and non-ideal gases. Laboratory exercises are designed to reinforce material learned in the classroom.

INTRODUCTORY PHYSICS (#17207)

Major year-long course. 3 credits. Form III.

Introductory Physics is a skills-based physics class intended for first-year students in the Upper School. The instruction is tailored toward building specific, transferable skills that can be used in other science classes and, in some cases, in classes outside the sciences. The mathematical content of the class is designed to reinforce subjects being studied in Intermediate Algebra. Skills are developed in the context of Newtonian Physics; topics may include kinematics, vectors, statics, dynamics, work, energy, momentum, and other traditional first-year physics themes. Additionally, an emphasis is placed on rational reasoning and the ability to write about scientific concepts.

PHYSICS (#17504)

Major year course. 3 credits. Forms V-VI.

Physics 1 begins to acquaint the student with meticulous conceptual and mathematical analysis of physical phenomena. Physical laws pertaining to the fields of Newtonian mechanics, electricity, and selected additional topics are studied in historical and philosophical context, with extensive laboratory practice. Special emphasis is placed on developing a student's ability to answer scientific questions with clarity, to form cogent logical connections in an unambiguous manner, to use technical vocabulary properly, and to discuss the answer to the required depth. Significant time is spent developing and reinforcing the required mathematical techniques, developing the skill of translating a physical situation into the appropriate mathematical relationship, and bolstering and extending the student's command of problem-solving methods. Topics such as trigonometry, accurate algebraic manipulation of equations, logarithmic and exponential functions, and proportional reasoning are practiced and applied to physical problems. In appropriate situations, students are introduced to the computer software for data regression, numerical solutions to equations, and graphical representations of physical models.

HONORS PHYSICS (#17508)

Major year course. 3 credits. Selected students in Forms V-VI. Prerequisites: Generally, A– or above in Honors Chemistry 2, or A or above in Chemistry 2; A or above in an advanced algebra course, or A– or above in Pre-Calculus or Advanced Pre-Calculus; also see note on Honors Courses (above).

Honors Physics 1, like Physics 1, acquaints the student with the detailed conceptual and mathematical analysis of physical phenomena but at a more accelerated pace and with a greater degree of sophistication. Physical laws pertaining to the fields of Newtonian mechanics, electricity, and selected additional topics are studied in historical and philosophical context with extensive laboratory practice. Students must answer scientific questions with clarity, form cogent logical connections in an unambiguous manner, use technical vocabulary properly and discuss answers to the required depth.

In contrast to Physics 1, students in Honors Physics are expected to have a greater degree of mathematical sophistication and physical intuition. Consequently, the course assumes that students possess a greater facility at translating a physical situation into the appropriate mathematical relationships and extends the students' command and range of these problem-solving methodologies. Topics such as trigonometry, accurate algebraic manipulation of equations, logarithmic and exponential functions, and proportional reasoning are practiced and applied to various physical phenomena. In appropriate situations, students are introduced to computer software for data regression, numerical solutions to equations, and graphical representations of physical models.

SCIENCE FOR THE 21ST CENTURY: PAST, PRESENT, & FUTURE (#17612)

Major year course. 3 credits. 4 65-minute class periods per cycle. Form VI (open to Form V students if space is available).

The emphasis of this course will be to acquaint students with the tools, skills, and background information needed to evaluate intelligently current or historical scientific claims. Topics studied include mathematical probability, statistical analysis and graphical representation of data, history and philosophy of science, science versus pseudoscience, informal logic and rational argumentation, scientific ethics, and methodologies of science. The topics will be discussed in the context of various scientific disciplines which may include assessment of risk, ecology, health care and medicine, climatology, astronomy, genetics, or others according to the interests of the class and the unfolding of current events.

The goal of this course is to instill an awareness, greater understanding, and appreciation of science and technology as an integral part of everyday life. Students will leave the course with a broad and sophisticated understanding of both the accomplishments and the limitations of science. This course will involve active class discussion, debate, independent research both in the library and on the internet, and the use of modern technological tools such as graphing calculators and spreadsheets.

This elective course may not be used to satisfy the graduation requirement of two laboratory sciences.

HUMAN ANATOMY & PHYSIOLOGY (#17604)

Major year course. 3 credits. Forms V and VI. Prerequisites: Biology 1 and 2.

Human Anatomy and Physiology is a full-year course in which human anatomy and physiology are studied using a body systems approach, with an emphasis on the interrelationships between form and function at the gross and microscopic levels of organization. The course includes basic anatomical and directional terminology; fundamental concepts and principles of cell biology; histology; the integumentary, skeletal, muscular, and nervous systems; special senses; and the endocrine system.

The course involves a significant amount of laboratory work. The lab experiences include exercises that demonstrate both anatomical and physiological concepts. The course will be supplemented with field trips to provide real-world experiences.

A.P. BIOLOGY (#17609)

Major year course. 3 credits. Selected students in Forms V-VI. Prerequisites: A full year each of biology, chemistry, and physics. Physics may be taken concurrently.

This course is designed to prepare students to begin their college biology careers with Sophomore-level classes. Students will demonstrate this readiness through their performance on the Advanced Placement examination (which is a requirement for the class) and an independent research project. The primary goals are to develop the skills and knowledge necessary to perform scientific inquiry in Biology. Significant reading assignments and class discussion provide essential knowledge as well as depth of understanding in selected areas. Unlike a traditional survey course, this class does not attempt to cover all areas of biology in order to focus on exploring a smaller number of topics fully and on the development of scientific skills. These skills include observing thoroughly and accurately, stating testable hypotheses, designing experiments, collecting data, performing statistical analysis, and communicating results. To practice and demonstrate these skills, students are required to complete an independent research project of their own design. The project culminates in a poster presentation and publication of a journal article (in the student-research journal).

A.P. CHEMISTRY (#17619)

Major year course. 3 credits. 1 65-minute class period, 3 90-minute class periods, and 1 C.P. per cycle. Selected students in Forms V-VI. Prerequisites: A full year each of biology, chemistry, and physics. Physics may be taken concurrently.

This course continues a student's investigation of chemistry that began with Chemistry 1 and 2 but at a much more sophisticated level. A.P. Chemistry follows a first-year college-level syllabus, and students are required to take the CEEB Advanced Placement exam at the end of the year. Given the depth and breadth of coverage of the material in the first-year chemistry course (typically taught during the sophomore year), A.P. Chemistry builds upon this strong foundation and often pushes beyond the normal A.P. curriculum into challenging problems and topics often reserved for advanced first-year or second-year college-level courses.

The concepts of electronic structure of the atom, bonding (including valence bond, molecular orbital, and ligand field theories), acid-base theories (Arrhenius, Bronsted-Lowry, and Lewis), reaction kinetics, thermodynamics, oxidation-reduction and electrochemistry, chemical equilibrium, solution chemistry, and solubility are treated in considerable depth. Extensive lab exercises (a minimum of 2-1/2 per cycle) are designed to reinforce lecture topics as well as familiarize students with important qualitative and quantitative analytical techniques and selected special topics.

A.P. PHYSICS C - MECHANICS (#17660)

Major year course. 3 credits. Selected students in Forms V-VI. Prerequisites: A full year each of biology, chemistry, and physics; Calculus AB or BC (recommended — may be taken concurrently).

The goal of the class is to take an in-depth look at the physical, macroscopic world. Students learn to apply physical law and sophisticated mathematical techniques, acquiring the ability to observe phenomena, abstract general rules regarding their occurrence, analyze the phenomena both conceptually and mathematically, and predict the future course of such phenomena. The course syllabus is closely linked to the E.T.S. suggested syllabus for the A.P. C-level mechanics course, and thus students will be required to sit for that exam. Topics covered include formal vector notation, two- and three-dimensional statics, torque, kinematics with differential equations, dynamics, work and energy, impulse and momentum, rotational motion, gravitation (including elliptical orbits), simple and damped harmonic motion, and a brief introduction to electricity and magnetism.

Extensive use is made of the graphing calculator for matrix solution of simultaneous equations, data regression via least-squares fits to appropriate models, numerical solutions of equations, and graphical representation of physical models. One of the major focuses of the course is computer simulation of physical laboratory experiments using spreadsheets and commercially available physics-modeling software. Numerical integration and various force relationships are studied.

AP PHYSICS C - ELECTRICITY & MAGNETISM (#17661)

Major year course. 3 credits. Selected students in Form VI. Prerequisites: A full year each of biology, chemistry, and physics; Calculus BC.

The goal of the class is to take an in-depth look at the nature of electrical charge, electrical current, and magnetism. Students learn to apply physical law and sophisticated mathematical techniques, acquiring the ability to observe phenomena, abstract general rules regarding their occurrence, analyze the phenomena both conceptually and mathematically, and predict the future course of such phenomena. The course syllabus is closely linked to the suggested syllabus for the A.P. C-level electricity and magnetism course, and thus students will be required to sit for that exam. Topics covered include formal vector notation, electrical charge, charge polarization, electric force, electric field, field lines, superposition of fields, electric potential, electrical shielding, electrical circuits, resistance, capacitance, inductance, magnetic

force and field, and induction. They will be presented in both theoretical and applied contexts.

Extensive use is made of the digital tools including graphing calculators and computers for matrix solution of simultaneous equations, data regression via least-squares fits to appropriate models, numerical solutions of equations, and graphical representation of physical models. One of the major focuses of the course is computer simulation of physical laboratory experiments using spreadsheets and commercially available physics modeling software. Numerical integration and various force relationships are studied. An introduction to core topics from vector calculus in preparation for more advanced studies in college is also included in the course.

ADVANCED PHYSICS MATHEMATICAL MODELING & THE VISUAL DISPLAY OF QUANTITATIVE INFORMATION (#17630)

Major year course. 3 credits. Selected students in Forms V-VI. Prerequisites: Physics 1 or Honors Physics; Precalculus or Calculus (may be taken concurrently).

Advanced Physics is a college-level course that builds upon the foundation in Newtonian mechanics that is established in Physics 1 (or Honors Physics). The curriculum moves on to an in-depth examination of rotational dynamics and kinematics and gravitation (including Kepler's laws, the complete derivation of Newton's Law of Universal Gravitation, and the analysis of elliptical orbits), topics that are seldom covered in great detail in a first-year introductory course.

The curriculum is built around Microsoft Excel as a tool for analyzing and modeling physical systems. Students develop and complete a number of Excel labs that are designed to explore the fundamental principles and mathematical constructs of physics. Important mathematical spreadsheet techniques (numeric integrals, derivatives and approximations, and data regression) are introduced and applied to increasingly sophisticated systems. Students are expected to demonstrate a genuine understanding of the spreadsheet methods, to present data in a clear and visually appealing graphical form, and to learn the art of writing technical papers that explain and analyze these systems in a clear and convincing manner. A final project includes the production and presentation of a poster summarizing the methods and results of one of these labs.

Students in Advanced Physics are prepared (and may choose to sit) for the Advanced Placement Physics C exam (Mechanics only).

INTRODUCTION TO SCIENTIFIC RESEARCH (#17631)

Major year course. 3 credits. Additional out-of-class time during free periods and CPs will likely be required to complete laboratory procedures. Selected students in Form V-VI.

Students who complete this course will be prepared to work productively in a scientific research laboratory. In this course, students will be designing and implementing research projects. The first project is completed as a group around a common goal in order to expose the students to scientific literature, experimental design, and modern molecular biology techniques. The second course component is design and execution of an independent project; projects may vary in subject but will be shaped by student interest and resources available at the school.

The majority of the course is devoted to working at the laboratory bench. The successful student will develop confidence working with scientific literature, familiarity with experimental design, knowledge and experience with modern techniques in molecular biology, and technical proficiency at a laboratory work station. Students will learn the essential scientific skills needed to maintain a laboratory notebook, collect data, and troubleshoot procedures. In addition, students will be expected to participate in a student-lead, discussion-based journal club in which they will be required to read and analyze scientific literature.

The nature of this work requires that students be dedicated, creative, and willing to commit additional time outside of class to complete experiments and meet with the instructor. Students will be evaluated on their level of preparation and planning for lab activities, the completeness and depth of the lab notebook, written updates and project summaries submitted to the instructor, and overall attitude and participation in the class. Placement into the course is dependent on approval of the department and the course instructor.

Students may register for a second year of research with instructor approval. In the second year, students will conduct an independent research project. In addition to the research project, they will be expected to participate in journal club and will assist the instructor with laboratory protocols and instruction.

HONORS ENVIRONMENTAL SCIENCE FEEDING AND FUELING THE 9 BILLION (#17613)

Major year course. 3 credits. Forms V and VI. Prerequisites: 2 years of Upper School lab science (open to Forms V and VI)

Within 30 years, the world's population is expected to exceed 9 billion people, and almost all of the population growth is expected to occur in the developing world. At the same time, billions of people in poor countries seek to raise their standard of living, which historically meant consuming more resources and producing more waste. Honors Environmental Science will investigate our challenge to sustainably feed and fuel an estimated 9 billion people by 2050. We will consider the "triple bottom line" of environmental, economic, and social/ethical consequences of different food and energy choices. The impact of climate change on both food and energy production will also be considered. Local and national examples will be supplemented by case studies that focus on countries such as China, India, Nigeria, Brazil, and Mozambique, considering how their needs might differ from those of Europe and the United States.

Coursework will involve environmental data collection and analysis, discussion and debates, research projects, and presentations. Regular field trips will expose students to the often hidden food and energy systems in the New Jersey area. This course will have an optional week-long field study trip during March break to help deepen our thinking about the essential questions of the course.

Note: This course is not designed to prepare students for the AP Environmental Science exam, but students will be provided an AP exam self-study guide suggesting additional reading and test preparation strategies.

VISUAL ARTS

The Visual Arts program at Pingry is designed to foster the development of aesthetic insights and appreciation on a personal, social, and cultural level. Through wide exposure and critical examination, the Pingry student can develop a lasting appreciation, understanding, and enjoyment of art. Our program provides students with a wide range of opportunities for participation in the art program, allowing them to study many media in depth.

On a personal level, the Visual Arts program strives to challenge students to: see in new ways and develop creativity through personal expression of their thoughts, ideas and emotions; develop character and a positive self-image by fostering the growth of problem-solving skills; cultivate their intellectual curiosity by presenting a broad range of visual studies; discover and improve new skills, strengths, and interests; and enhance their sensitivity and introspection through critical analysis of personal works.

On a social level, the Visual Arts program aims to challenge students to: examine their environments in new and different ways; respect, appreciate, and support the creative efforts of others; and examine and objectively analyze the culture they have inherited and the range of roles and responsibilities they can assume within it.

On a cultural level, the Visual Arts program aims to encourage seeing and expressing in new ways, thereby enriching lives and to lead to a more thorough understanding of past cultures including recognizing the contributions of ethnic and social groups in today's pluralistic world.

Note: Due to the wide selection of course offerings in studio art and due to fluctuations in enrollment, some courses may be offered on an alternate-year basis.

VISUAL ARTS OFFERINGS

FORM	III	IV	V	VI
GRADE	9	10	11	12
ART FUNDAMENTALS	✓	✓	✓	✓
CLAYWORKING 1		✓	✓	✓
PHOTOGRAPHY 1		✓	✓	✓
FILM & VIDEO		✓	✓	✓
ENVIRONMENTAL ART		✓	✓	✓
SCULPTURE		✓	✓	✓
ARCHITECTURE, DRAFTING, AND DESIGN 1		✓	✓	✓
DRAWING & PAINTING 1		✓	✓	✓
CLAYWORKING 2			✓	✓
PHOTOGRAPHY 2			✓	✓
ARCHITECTURE, DRAFTING, AND DESIGN 2			✓	✓
DRAWING & PAINTING 2			✓	✓
PORTFOLIO DEVELOPMENT			✓	✓
ADVANCED TOPICS			✓	✓
A.P. ART HISTORY			✓	✓

ART FUNDAMENTALS: 2-D & 3-D DESIGN (#12304)

Major year course. 3 credits. Forms III-VI. This course is a prerequisite for all other courses in the visual arts except A.P. Art History.

This introduction to the principles of two-dimensional and three-dimensional design enables students to develop a critical visual vocabulary. Principles of design are studied in depth. Basic materials and art techniques introduce the various disciplines in the visual arts and provide a foundation for future art studies. Students enjoy a diversity of materials and technical processes and deepen their appreciation through a historical perspective of art. Museum trips and related activities enhance the studio experience.

CLAYWORKING 1 (#12756)

Major year course. 3 credits. Forms IV-VI.

Art forms which may be executed in clay may range from two-dimensional, through reliefs and murals, to the full three-dimensional forms of sculpture and art pottery. This course develops the skills and sensibilities that will allow students to pursue their interests in any of these directions. Wheel-throwing and hand-building are taught, using stoneware and porcelain clays and glazes fired in both oxidation and reduction. Glazes will be formulated with the aid of the computer and special software. Mixed media techniques and clay will also be explored. The history of clay art forms, as well as contemporary movements, are studied with the emphasis on design, organization of form, and the development of an expressive personal visual vocabulary. A museum trip or other related activities will enhance the studio experience.

PHOTOGRAPHY 1 (#12807)

Major year course. 3 credits. Forms IV-VI.

Students will study photography as an art form and learn to incorporate individuality and the principles of design into their work. Students learn to use a 35mm camera and gain the necessary technical skills for developing and printing. The course develops the students' powers of observation, inquiry, and imagination, and demands that they learn to follow procedures that require careful timing, close attention, patience, and planning. Cooperation with others and the careful handling of chemicals and photographic equipment are stressed. The history of photography and its graphic applications are covered. The school will furnish a 35mm SLR camera and Adobe Photoshop to each student enrolled for the period of the course.

FILMMAKING & VIDEO (#12707)

Major year course. 3 credits. Forms IV-VI.

This course offers instruction in the fundamentals of filmmaking, video, and animation. Students learn basic techniques including scripting, lighting, filming, editing, sound, and special effects. We begin with practice with equipment and study of films to understand principles of good filmmaking. Montage, documentaries, and special effects are among the featured projects.

ENVIRONMENTAL ART (#12719)

Major year course. 3 credits. Forms IV-VI.

This year-long Environmental Art course introduces students to art that first gained international attention in the 1960s and has since become a significant art practice. Students will explore the possibilities for using natural and recycled materials found on campus to make art with an emphasis on site-specific sculpture. They will be encouraged to become keen observers of their surroundings and develop a sense of place that will energize their work. Pingry has almost two hundred acres that provide easily harvested clay, wood, and stone with which to build sculptures. Students will learn to think of the natural world as their palette, and they will make their own art materials: paper from plants, dyes from flowers, and encaustic paint from beeswax. Interdisciplinary projects with Environmental Science, Environmental History, and Creative Writing classes will be emphasized.

SCULPTURE (#12726)

Major year course. 3 credits. Forms IV-VI.

Students study various media to produce three-dimensional sculptural forms. Pâte de verre, hot glass, casting, clay, wood, stone, hydro-stone, plaster, and metals are employed to communicate a personal visual vocabulary. Modeling, mold-making, carving, casting, and fabrication techniques are introduced. Large-scale works are created through collaboration. The computer is, at times, employed as a designing tool, and the two-dimensional images are then translated into three-dimensional sculpture. The history of sculpture, contemporary movements, and architectural applications is stressed. Group projects and individual expression heighten the students' understanding and appreciation of art and sculpture. Museum/gallery visits and other related activities will enhance the experience.

ARCHITECTURE, DRAFTING, & DESIGN 1

(#12837)

Major year course. 3 credits. Forms IV-VI.

The first directive of the study of architecture and of interior and industrial design is learning to design. Design is the process of planning, problem solving, development, construction, and presentation of ideas. Students will develop skills in visualization through sketching, drafting, and constructing models. Computer -aided design programs will be used as tools to develop and grow conceptually. Students will study the work of a variety of artists, architects, and product designers.

DRAWING & PAINTING 1

(#12104)

Major Year Course. 3 credits. Forms IV-VI.

The core goals of this course are to practice observing the world with clarity and imagination, to develop analytical skills from a visual perspective, and to interpret experience expressively using visual tools. The emphasis during the first semester will be on drawing and painting from life. Students will draw with a variety of tools offering range and flexibility in expressing ideas, including charcoal, pen and ink, and pastels. They will also develop skills working with acrylic and oil paint media. During the second semester, assignments will encourage students to develop a visual point of view and find creative, original solutions to visual problems. Students will receive regular feedback and evaluation of their work from the instructor, and also periodic feedback and exchange of ideas from classmates.

Field trips, museum visits, shows in our gallery, and the study of relevant artists will be integrated into the process of developing ideas for assignments. Student will be encouraged to display their work and to communicate through their art.

CLAYWORKING 2

(#12766)

Major year course. 3 credits. Forms V-VI.

Prerequisite: Clayworking 1.

This course centers on wheel-throwing as a means of making clay forms. Basic and advanced throwing skills, materials, concepts, glazing, and firing are covered. The computer will be used to conceive some designs, which will be translated into three-dimensional forms. Hot glass, pâte de verre, and casting will also be combined with the clay medium. Glazes will be formulated with the aid of glaze calculation software and the computer. Students learn how formulated minerals react to heat and produce crystalline glazes. Oxidation, reduction, raku, overglaze, and luster-finishing techniques will be explored as the student constructs utilitarian and non-utilitarian expressive works in clay. Museum/gallery visits and other related activities will enhance the experience.

PHOTOGRAPHY 2

(#12805)

Major year course. 3 credits. Forms V-VI.

Prerequisite: Photography 1.

This course is designed for advanced photography students. Students will learn more complicated skills in printing, shooting, lighting, and special effects. Aesthetic awareness and individual expression through photography will be stressed. Students will learn sophisticated digital photography applications in Photoshop and they will also learn to use a cellphone for making "serious" artwork. Museum/gallery visits and other related activities will complement the classroom coursework. The school will furnish a 35mm SLR camera and Adobe Photoshop to each student enrolled for the period of the course.

ARCHITECTURE, DRAFTING, & DESIGN 2

(#12847)

Major year course. 3 credits. Forms V-VI.

Prerequisite: Architecture, Drafting, and Design 1.

Students will continue in-depth study in architecture, drafting, and design. They will develop higher-level skills of drafting, site and floor plan creation, and model building, and they will acquire an understanding of the concepts of plot plans, mapping, landscape design, topography, and interior design. Advanced computer-aided design programs will be used to develop creations. Students will continue to develop their compositional understanding, critical thinking, and problem-solving skills with more complex and challenging projects.

DRAWING & PAINTING 2 (#12204)

*Major year course. 3 credits. Forms V-VI.
Prerequisite: Drawing and Painting 1.*

Independent thinking and thoughtfully considered self-expression are emphasized in this course. Students will return to the touchstone of drawing, with regular drawing assignments scheduled throughout the year. Skills developed in Drawing and Painting I will be honed, and nontraditional mark-making materials will also be explored. Most students will have reached a level where they understand that the greatest challenge is not **how** to draw and paint, but **what** to draw and paint. Ideas from key art history movements and major issues in contemporary art will be featured elements in assignments. Watercolor, mixed media, and collage are examples of methods and media that will be introduced and explored in depth. Working with multiple images, digital technology, and various other nontraditional media will give students more resources and more freedom to create work that meets a high standard of original and critical expression. Personal expression and effective visual communication of ideas will be the overarching goals, and the instructor will work individually with each student to move forward in that effort.

PORTFOLIO DEVELOPMENT (#12739)

*Major Year Course. 3 credits. Forms V-VI.
Prerequisite: Departmental permission. Honors.*

This course is designed for the serious art student who has mastered basic art skills and is interested in producing a substantial body of work. Emphasis is placed on developing a portfolio which may be used for college admission or to support an application. Students will work both independently and collaboratively with other students employing the different disciplines of art. This course will foster the highest level of concentration in the visual arts.

ADVANCED TOPICS IN ART (#12743)

Major year course. 3 credits. Forms V-VI. Prerequisites: 2 years of art in the Upper School + Departmental permission. Prospective students must apply for permission and submit a portfolio and statement of purpose during the course registration period.

The serious art student at an advanced level may choose to undertake an individual art project under the direction of a member of the art faculty. Project content, meeting times, and deadlines will be established on an individual basis to best accommodate and support the learning process. This course provides a suitable working environment for the highly motivated student.

A.P. ART HISTORY (#12909)

Major year course. 3 credits. Forms V-VI. Prerequisite: Permission of the teacher and the Upper School Director. Art Fundamentals is not a prerequisite.

Art from prehistoric to contemporary times is studied analytically and historically. Concentrating mainly on art in the Western world, paintings, sculpture, and architecture are shown in slides, films, and photographs, and a few visits are made to art galleries and museums. The cyclical nature of art history is explored as is the relationship of each period of art to the events of the time. Thus art is interrelated with the political, religious, historic, economic, social, and scientific developments of each era.

In addition to preparing to see the world with new insights and more discerning and appreciative eyes, students must take the Art History Advanced Placement exam in May.

WORLD LANGUAGES – MODERN LANGUAGE

Our program emphasizes oral skills early in language learning. After the students have been exposed to a given concept and are able to apply it in speech, the skills of grammar, reading, and writing reinforce this oral ability. Upon completion of this sequence, Pingry students can both communicate and comprehend the spoken word effectively. They have an in-depth understanding of different cultures through the study of geography, history, literature, the arts, and civilization. The students develop an open-minded attitude toward alternative ways of viewing reality and should be able to see themselves and their own culture from different perspectives.

LANGUAGE REQUIREMENTS

Pingry offers Chinese, French, German, Latin, and Spanish. Language study begins in Grade 6. Grades 6 and 7 together constitute Level 1. To satisfy Pingry's graduation requirement in language, a student must complete three consecutive years of study in one of these five languages in the Upper School. A student may study more than one language at a time.

FIRST-YEAR MODERN LANGUAGE CHINESE 1 (#19901); FRENCH 1 (#19714); GERMAN 1 (#19724); SPANISH 1 (#19644)

Major year course. 3 credits. Forms III-V.

The first-year language experience is designed to enable students to express themselves in basic but grammatically accurate and properly pronounced sentences on a wide variety of practical topics. To achieve this goal of elementary fluency without reliance on English, the basic vocabulary and structures are initially presented through various media. The oral aspect is then reinforced by reading and writing exercises and a synthesis of the contrasting structural differences between the foreign language and English. During each class period, every student actively participates in pattern practice, question-and-answer and cooperative-learning situations, and expression of ideas — all in the foreign language.

Class materials are so designed that the student must function in the foreign language in a real-life way rather than through mere artificial mimicking of the teacher. Students are thus encouraged to think in the target language. They initially repeat only what they have heard, and, using the patterns of the target language, they construct their own sentences, which in turn are developed into basic guided compositions. The materials used reflect the everyday culture of the countries where the language is spoken, helping students develop an open-minded, positive attitude toward other cultures.

MODERN LANGUAGE 1/2

FRENCH 1/2 (#19715); SPANISH 1/2 (#19345)

Major year course. 3 credits. Forms III-VI. Prerequisite: First year of a foreign language.

The first semester of this course reinforces the student's language learning skills and mastery of the most important vocabulary, grammar, and cultural concepts of the previous first year course. The second semester will present the grammatical structures, verb tenses, vocabulary, and cultural concepts introduced in the first half of the second year course. Classes are conducted in the target language, and the student also is encouraged to think, speak, and write more consistently in the target language. Daily aural and oral practice, including partner and group activities, games, and student-inspired dialogue, provides an opportunity to perfect pronunciation and to develop the ability to express ideas in the target language. Visual aids and models that portray how the grammar functions establish structures which the students should use. Students will also read for understanding and literary appreciation to build their vocabulary and grammar skills.

SECOND-YEAR MODERN LANGUAGE

**CHINESE 2 (#19902); FRENCH 2 (#19314);
GERMAN 2 (#19324); SPANISH 2 (#19344)**

Major year course. 3 credits. Forms III-VI. Prerequisite: First year of a foreign language.

The second-year language experience reinforces skills that were introduced at the first-year level, develops them to a higher degree, and continues to present grammatical structures and tenses. Classes are conducted — and the student is encouraged to think, speak, and write more consistently — in the target language. Daily oral practice, including group activities, games, and student-inspired dialogues, provides an opportunity to perfect pronunciation and intonation, while developing the ability to express ideas in the target language. The presentation of vocabulary through pictures and other visual aids and the use of paradigms to illustrate how the grammar functions establish structures which students will use at the second-year level. Students read for understanding and appreciation while also building vocabulary and grammar skills.

MODERN LANGUAGE 2/3 **FRENCH 2/3 (#19716); SPANISH 2/3 (#19346)**

Major year course. 3 credits. Forms III-VI. Prerequisite: Second year of a foreign language.

The first semester of this course reinforces the student's language learning skills and mastery of the most important vocabulary, grammar, and cultural concepts of the previous second year course. The second semester will present the grammatical structures, verb tenses, vocabulary, and cultural concepts introduced in the first half of the third year course. Students learn more idiomatic forms of expression, literary vocabulary in preparation for reading and the transition to authentic literature, and more advanced grammatical structures which they are encouraged to apply in oral and written expression of ideas. Composition work reinforces grammatical skills. Oral performance is a more prominent component of the language experience.

THIRD-YEAR MODERN LANGUAGE **CHINESE 3 (#19905); FRENCH 3 (#19414);** **GERMAN 3 (#19424); SPANISH 3 (#19444)**

Major year course. 3 credits. Forms III-VI. Prerequisite: Second year of a foreign language.

The third year of study continues to build on the basic oral and written skills that the student needs to communicate effectively in another language. In addition to a review of all the grammar covered in the first two years, students learn more idiomatic forms of expression, literary vocabulary in preparation for reading, and more advanced grammatical structures, which they are encouraged to apply in oral and written expression of ideas. Composition work reinforces grammatical skills. Oral performance becomes a more prolific component of the language experience. The student also begins the transition to the reading of authentic literature in the target language.

FOURTH-YEAR MODERN LANGUAGE **FRENCH 4 (#19514); SPANISH 4 (#19545)**

Major year course. 3 credits. Forms IV-VI. Prerequisite: Third year of a foreign language.

This course is designed to improve the students' oral and written skills. The students are expected to use the target language in all forms of communication. Literature plays an important role in the students' language development and as a means for literary appreciation and cultural and historical understanding. Students will also demonstrate their learning mastery through projects, oral reports, and authoring their own original work. Presentation and review of grammar is closely tied into all activities.

HONORS/PRE-A.P. **FOURTH-YEAR MODERN LANGUAGE** **CHINESE 4 PRE-A.P. (#19906); FRENCH 4** **HONORS (#19515); GERMAN 4 HONORS** **(#19524); SPANISH 4 PRE-A.P. (#19546)**

Major year course. 3 credits. Forms IV-VI. Prerequisite: Third year of a foreign language and teacher's recommendation. (Prerequisite for Spanish 4 Pre-A.P./French 4-H.: Spanish 4/ French 4 or a grade of A– or better in Spanish 3/French 3, as well as an oral interview.)

The fourth-year course is conducted exclusively in the target language. The program includes extensive grammar instruction and the building of vocabulary through a variety of texts, as well as through writing essays, making oral presentations, and performing skits. Attention is given to cultural, historical and political events as reflected in the texts, and to the values and customs of the various societies. Students write essays and discuss topics on subjects of contemporary, literary, or personal interest.

ADVANCED TOPICS 1 **(FRENCH #19620 AND GERMAN #19630)**

Forms IV-VI, Prerequisite: French and German IV-H

While this course completes the formal study of grammar, idiomatic usage, and stylistic conventions in expository writing, its main focus is exposing the students to two of the following six thematic areas: Beauty and Aesthetics, Contemporary Life, Families and Communities, Global Challenges, Personal and Public Identities, and Science and Technology. The two themes will be undergirded by literary works, current events articles, websites, realia from the target culture, films, and various other sources. Students will be expected to participate in teacher-directed activities as well as pursue their own interests and engage in their own research in order to communicate in the target language about these themes using interpersonal and presentational modes of expression.

ADVANCED TOPICS 2 **(FRENCH #19621 AND GERMAN #19631)**

Forms IV-VI, Prerequisite: Advanced Topics 1 (French and German)

This course will seek to refine and deepen the students' skills in idiomatic usage, grammar, and style in both oral and written communication. It will continue and complete the study of the remaining four thematic areas that were started in Advanced Topics I: Beauty and Aesthetics, Contemporary Life, Families and Communities, Global Challenges, Personal and Public Identities, and Science and Technology. The students will further develop their skills in the interpersonal and presentational modes of expression in the target language. Students who continue the language in college can expect to take courses at the advanced level.

Students in Advanced Topics 2 are prepared for and may choose to take the Advanced Placement exam.

FIFTH-YEAR A.P. MODERN LANGUAGE

A.P. CHINESE 5 (#19907); A.P. SPANISH 5 LANGUAGE (#19647)

Major year course. 3 credits. May be taken if the language requirement has already been satisfied. Forms IV-VI. Prerequisites: Fourth year of modern language and permission of the teacher or have the equivalent background as determined by the department.

The fifth-year modern language course broadens the skills developed in the fourth-year course; it is intended for those who have chosen to develop their proficiency in the target language. Emphasis is on the use of the language for active communication: ability to understand the spoken language, development of vocabulary sufficient to read newspapers, magazines, etc., ability to express oneself accurately both orally and in writing. These are intensive training courses to develop language skills as close to native proficiency as possible. The role of literature as fertile ground for enhancing the student's overall mastery of grammar, vocabulary, and idiomatic usage is actively recognized. Students will be required to take the A.P. language exam.

CHINESE 5 (#19904)

Major year course. 3 credits. Forms V-VI. Prerequisite: Chinese 4 or teacher's recommendation.

In this course, students will enhance their ability to communicate in Chinese in various social and educational settings, which they encounter in America and are similar to those their counterparts experience in China. The topics and settings are drawn from real life experiences of students who have lived and studied in China. A variety of tasks are designed to help students master the key vocabulary and grammatical structures for effective communication. The goal of this course is to enable students to understand and also describe in the target language the challenges of daily life in Chinese-speaking countries.

FRENCH 5 (#19618)

Major year course. 3 credits. Forms V-VI. Prerequisite: French 4.

In this course, students will hone their speaking, listening, reading, and writing skills as they learn about French and Francophone history, art, and literature. By the end of this course, students will possess stronger linguistic skills and a much deeper understanding of how the French language and French-speaking people came to be as they are today, as well as the many French influences on our own culture.

SPANISH 5 (#19646)

Major year course. 3 credits. Forms V-VI. Prerequisite: Spanish 4.

This course promotes self-expression in Spanish, both oral and written. The grammar will be reviewed within the framework of the different readings and vocabulary topics. The students will research daily current events, discuss them orally, and provide a written summary in Spanish. They will also be exposed to an overview of the major artistic and literary movements in the world and read pertinent short stories from Hispanic literature.

SIXTH-YEAR MODERN LANGUAGE FRENCH 6 HONORS (#19658)

Major year course. 3 credits. Forms V-VI. Prerequisite: French V; recommendation by the teacher.

This course focuses on specific literary topics. Great works of writers during significant literary movements and eras are studied. The role of language, replete with nuances, more sophisticated language forms, and stylistic considerations, is closely analyzed to enable the student to write major papers in the language using the appropriate expository conventions.

SPANISH 6 HONORS LITERATURE (#19648)

Major year course. 3 credits. Forms V-VI. Prerequisites: A.P. Spanish 5 Language and teacher's recommendation.

In this course, literary movements, genres, authors, and literary criticism are covered in depth. Selected pieces by Lorca, Matute, Paz, García Márquez, Neruda, and Borges are read. As time permits, other works in Spanish literature may be added. Students also compose original poems and short stories. Students who wish to take the A.P. exam in Spanish Literature should consult with their instructor.

CHINESE 6 HONORS (#19908)

Major year course. 3 credits. Forms V-VI. Prerequisite: A.P. Chinese V or teacher's recommendation.

This course will focus on developing the students' interpretive and presentational modes of expression by discussing and writing about exciting contemporary social issues in China, such as the population, housing, education, employment, and family relationships. The curriculum uses materials which are drawn from current newspapers, magazine articles, TV programs, films, and modern literature. The students are expected to compare these issues with those in other countries and engage in performances that reflect their research about the topics. In this way, this course refines and deepens the students' oral and written skills in idiomatic usage, grammar, and style.

SPANISH 6 LANGUAGE (#19649)

Major year course. 3 credits. Forms V-VI. Prerequisite: Spanish 5.

This course is a continuation of Spanish 5. Major authors in Spanish literature will be presented. The students will read poems, essays, short stories, and fragments of major works such as novels and plays. Enhancing the students' reading comprehension and writing skills is another major focus. Students will be required to write their own original stories and deliver oral presentations. Assessments will also require the students to understand and explicate literary pieces — poetry and other short reading passages — to which they have not been exposed in class.

SEVENTH-YEAR MODERN LANGUAGE

CHINESE 7 ADVANCED (#19909)

Major year course. 3 credits. Forms V-VI. Prerequisites: Honors Chinese 6 or teacher's recommendation.

This course is a continuation of Chinese 6. Students will discuss and conduct in-depth research on the topics related to China's social transformation since the implementation of the Open Door Policy. The topics include "Economic Development," "Individual Investments," "Urban Commercial Consumption," and "The Policy of Family Planning for Population Control." Students will also explore the impact of the fast-growing economy on the environment and on the cultural and ideological changes in contemporary China. Oral discussion in Chinese is an important component of the course. The curriculum will enhance their linguistic skills, as well as provide opportunities to engage in critical thinking.

SPANISH 7 ADVANCED LITERATURE & COMPOSITION (#19800)

Major year course. 3 credits. Form VI. Prerequisites: Honors Spanish 6 Literature and teacher's recommendation.

This rigorous course will span literature from the medieval period to the 19th and 20th centuries up to the modern period, covering works such as *El Cid* to authors such as Gabriel García Márquez. Major compositions involve overall study of the various authors and their styles.

WORLD LANGUAGES – CLASSICAL LANGUAGE

Latin is the gateway to the cultural, intellectual, emotional, and spiritual life of the Romans, whose culture, along with the Greek and Judeo-Christian traditions, is at the root of Western civilization, its influences appearing in our language, history, law, literature, government, philosophy, architecture, and art. The study of Latin keeps our intellectual and cultural heritage alive, affords students an opportunity to explore Roman culture, and gives them a solid linguistic base for the study of modern languages as well as a real understanding of the vocabulary of educated English. At Pingry we teach comprehension of the Latin language through a historical novel which traces a Roman family throughout the Roman world during the first century CE. These texts will develop their understanding of the social and political history of the Roman people.

LANGUAGE REQUIREMENTS

Pingry offers Chinese, French, German, Latin, and Spanish. Language study begins in Grade 6. Grades 6 and 7 together constitute Level 1. To satisfy Pingry's graduation requirement in language, a student must complete three consecutive years of study in one of these five languages in the Upper School. A student may study more than one language at a time.

LATIN 1 (#19734)

Major year course. 3 credits. Forms III-V.

Students learn vocabulary, grammar, and syntax by translating stories about the historical banker Caecilius Iucundus, set in Pompeii in the year before its destruction. The story then moves on to Roman Britain. Through these Latin readings and background information in English, students progress through gradually more difficult Latin grammar and syntax. At the same time, they encounter basic information about the social, political, and historical background of the Roman Empire.

LATIN 2 (#19334)

Major year course. 3 credits. Forms III-VI. Prerequisite: Latin 1 or Middle School Latin.

This course, which builds on previously established foundations, reviews and integrates items already met while introducing new vocabulary, grammar, and syntax. The historical novel continues, covering such themes as the history, science, medicine, and religion of Alexandria, Egypt, and Roman Britain.

LATIN 3 (#19434)

Major year course. 3 credits. Forms III-VI. Prerequisite: Latin 2.

By the end of Latin 3 our students will have met most of the main grammatical points of Latin. The characters first encountered in Latin 1 continue from Roman Britain to Imperial Rome. The topography and history of ancient Rome, struggles for power, and contrasts between rich and poor are some of the cultural topics covered.

LATIN 4 (#19534)

Major year course. 3 credits. Forms IV-VI. Prerequisite: Latin 3.

The readings in the Cambridge Latin Course Unit 4 bring to a close the historical novel that began in Latin 1 and round out the student's knowledge of Latin grammar in preparation for reading Roman authors in the original. The remainder of the term is spent on the authors Catullus, Martial, Ovid, Pliny, Vergil, and Petronius.

LATIN 5 (#19535)

Major year course. 3 credits. Forms V-VI. Prerequisite: Latin 4.

This is an advanced course covering a broad range of Latin literature. Within limits, the literature read will be tailored to the interests and abilities of the class. Catullus, Cicero, Plautus, Petronius, Horace, Julius Caesar, Vergil, and Ovid all may be read, as well as any other writer in whom the students may have a special interest or who may be appropriate given the current events of the year. All works are read in Latin with attention to style (especially as it relates to intent), historical and cultural context, and the use of rhetorical devices.

A.P. LATIN 5 **(#19638)**

Major year course. 3 credits. Forms V-VI. Prerequisite: Latin 4.

This course prepares students for the Advanced Placement Examination of the College Board. The required syllabus for the course includes both Latin and English readings from Vergil's *Aeneid* and Caesar's *Gallic War*. Throughout the course students develop linguistic competence through translating prepared poetry and prose literally, reading passages of prose and poetry with comprehension, and analyzing the texts in written arguments. Leadership, war and empire, and human beings and the gods are the significant themes of the course.

LATIN 6 HONORS **(#19641)**

Major year course. 3 credits. Forms V-VI. Prerequisite: Latin 5, A.P. Latin 5 or departmental permission (for example in the case of the student having completed Latin 4 with an A or A+ and being unable to schedule Latin 5 or A.P. Latin 5).

The student and teacher develop the syllabus based on the student's interests from a list of Latin literature from the 2nd century B.C.E. through the 3rd century C.E. If the student has studied sufficient Greek, some Greek grammar and literature may be added. The literature is read with emphasis on accuracy in reading the language, recognition of rhetorical devices, analysis for theme, form, and stance, and cultural context. Examples of works which may be included are the odes of Horace, the poetry of Catullus, the *Cena Trimalchionis* of Petronius, the *Aeneid* of Vergil, the plays of Plautus and Terence, the historical writings of Tacitus, the poetry of Ovid, and the speeches and other writings of Cicero. The choice of Greek works, if read, will depend of the student's skill level in Greek.

INTERDEPARTMENTAL COURSES

CONTEMPORARY AMERICAN ISSUES (#10994 FOR FALL, #10995 FOR SPRING)

former course name: American Dreams

Major year course. 3 credits; 1.5 credits for fall or spring only. Forms V-VI.

This interdisciplinary course examines some of the most controversial and enduring issues in American history and culture. Students will analyze primary source documents, film, and literature to help recognize the historic roots of major issues. At the core of our studies will be four units focusing on the topics of race, gender, class, and religion. Each topic will be rooted in a historic foundation and then brought forward to the present day. The goal of each unit will be to have students wrestle with their own conceptions of these topics as they relate to their everyday world.

Classes will be discussion-oriented; students will write short reaction papers and longer research-oriented papers as well as prepare projects and presentations and take traditional tests. Course material will include interdisciplinary scholarship as well as fiction, journalism, historical narratives, photographs, and film.

FREEDOM: RESPONSIBILITIES & LIMITATIONS (#10999)

Major year course. 3 credits. Forms V-VI. Honors.

This interdisciplinary course examines the many aspects of freedom through an analysis of fine arts, literature, religion, and philosophy. Students address a wide range of social, political and ethical issues to gain a diverse perspective on freedom and its many manifestations in different cultures. The earliest and most influential principles and doctrines of freedom are evaluated in the light of our most pressing contemporary controversies, including affirmative action, reproductive rights, and freedom of speech.

Classes are discussion-oriented, and students periodically make presentations to the class. Students keep weekly journals as a written response to the course and are also responsible for a series of more formal, critical writing assignments. The broad nature of freedom, the interdisciplinary character of the curriculum, and the focus on current events ensure that student input is a fundamental component of the course.

Classroom discussions emphasize such seminal principles of Western thought as individual rights, the social contract, and majority rule. Readings include *The Grand Inquisitor*, *The Communist Manifesto*, *The Sunflower*, *The Stranger*, and *Makes Me Wanna Holler*. The textbooks *Morality and Moral Controversies* and *Social and Political Philosophy* provide for discussion of many ethical issues and sociopolitical relationships. In-house speakers and field trips to New York City enrich and broaden class readings and discussions.

DANCE 1: CREATIVE DANCE & MOVEMENT (#10777 AS ARTS, #10777A AS FITNESS)

Major year course. 3 credits. Forms III-IV.

This course is open to anyone who loves to move. Whether you are a trained dancer, an athlete, or someone who locks the door and poses in front of the mirror, this course will develop the dancer in you.

Students take class in comfortable clothes with the feet bare. They learn to create and perform their own dances. They explore dance in terms of body parts and shape, energies, actions, space, and relationships. They incorporate these values into choreographed warm-ups, guided movement explorations, and group improvisations. Then, combining this work with the input and skills of class members, they create dance pieces that are shown daily, weekly, or monthly. Ideas for dances may be chosen by the teacher or students. The year culminates in a formal dance showing by student choreographers with costume, music, and movement all selected by the students.

Benefits of creative dance include increased ease of movement as new and more efficient muscle patterns are developed, improved self-image (because moving enhances and enlivens the positive feelings of the body), and relief from stress.

Students may elect this class to fulfill an Arts or a Fitness requirement for one, two, or three trimesters.

DANCE 2: MODERN DANCE (#10778 AS ARTS, #10778A AS FITNESS)

Major year course. 3 credits. Forms IV-VI.

Prerequisite: Dance 1 or permission of the instructor.

Dance 2 explores the exciting history and innovative techniques of modern dance. Modern dance, also called barefoot dance, jazz, or lyrical dance, is an American-born, 20th-century art form that took a new and fresh approach to dance. Rebels of their time, Isadora Duncan, Martha Graham, Doris Humphrey, and others had ideas of freedom, equality, and social concerns which needed a new vocabulary of movement to be expressed.

Jazz dance, traditional dance rhythms, and ballroom dance steps round out our modern vocabulary so that students can become fluent with other forms of dance. Partnering and contact improvisations are also added to give students experience giving and taking, following and leading with weight. Relaxation techniques, yoga stretches, and constructive rest are stress relievers that dancers will also use in class from time to time.

Throughout the year, students will perform their work for the class and record their work on video. Formal showings of student-choreographed work will be the culminating project of this class.

Students may elect this class to fulfill an Arts or a Fitness requirement.

FINANCIAL LITERACY 9 (#99000)

Trimester course. 1 credit. 3 class meetings per cycle. Required of all Form III students.

The goal of the program is to equip students with the tools and knowledge to foster responsible financial decision-making. It provides a thorough examination of such topics as financial planning, financial statements, time value of money, investments, credit, insurance, taxes, and careers. The course will be supplemented by financial speakers and problem types in the concurrent mathematics courses.

FINANCIAL LITERACY LECTURE SERIES (#99100)

Required of all Form VI students.

The goal of the senior financial literacy seminar series is to graduate students who are informed about personal finance, the importance of saving, budgeting, credit, and thoughtful and wise investing. There are three mandatory seminars throughout the year, each addressing different topics. A question and answer period will be provided at each seminar to promote student understanding. The culminating seminar will be held in May to review topics already covered, and will ensure seniors are prepared for their financial journey beyond The Pingry School. Our mission is that each Pingry graduate will have accumulated knowledge to be an informed and responsible financial decision maker for their own personal financial lives and to be a contributing, financially ethical, and knowledgeable member of the global community.

PUBLIC SPEAKING: THE ART OF DISCOURSE (#99901)

Trimester course. 1 credit. Forms III-VI.

Public speaking is the communication of information to an audience with a clear intention. Students in this course develop an understanding of how language is used to enlighten, entertain, inspire, or challenge an audience. Students will learn how to construct a speech, how to select language that will help them realize their intention, and how to use the voice and body in the presentation of their material. Students will examine the works of great presenters and their speeches as part of the course.

YEARBOOK DESIGN & PRODUCTION (#10725)

Year-long course. 1 credit. 4 class meetings per cycle. Forms III-VI.

This course is designed to teach the techniques of layout and editing. Along with the organization and production of the yearbook, there will be frequent writing and graphic design assignments and in-class evaluation of all work submitted. Emphasis will be on expressing ideas in print, drawings, graphics, and photographs. The assigned work will be formulated and produced on computers through mastery of scanning processes, InDesign, and PhotoShop. Students desiring to serve as editor in chief, assistant editor in chief, or editor of any section of the yearbook must take this course. This course does not satisfy the Arts graduation requirement.

Students may be asked to run a school-provided copy of Adobe Photoshop 6 on their laptops if it is appropriate to their responsibilities.

OTHER COURSES

COMMUNITY SERVICE 10 HOURS PER YEAR.

Required of all students, Forms I-VI.

Pingry recognizes the need to support our community and to encourage a sense of social responsibility among our students. The development of character, self-esteem, compassion, and leadership are key components of a Pingry education. These objectives are the foundation of our Community Service Program. Students are encouraged to volunteer in their fields of interest. Myriad opportunities are available, including tutoring, community outreach, special projects, and work in schools, hospitals, and senior communities.

Organizations with which associations have been established include Bridges, Community Food Bank, Matheny Medical and Educational Center, ECLC, and the Samaritan Homeless Interim Program. New projects based on individual interest are always welcomed. When possible, the school provides transportation and needed resources.

DRIVER EDUCATION (#10401)

Trimester course. Form IV.

This course meets the New Jersey Driver Education requirement. At its conclusion, the state test will be administered. This course may be taken during the student's Fitness Education period and will fulfill the Fitness requirement for Form IV. All students enrolled in Driver Education will be billed a separate fee for the course.

PEER GROUP (#10300)

1 class meeting per cycle for first 2 trimesters. Required of all Form III students.

The Peer Group program is designed to help freshmen adjust to the Upper School by providing support from seniors who receive extensive training in group dynamics, leadership techniques, and values-clarification issues. The program is directed by three faculty advisors, including Pingry's personal counselors.

From September through early March, all Form III students meet one period each week in small groups with their senior co-leaders to discuss academic and social concerns. There is a two-day camping trip for seniors and freshmen in September as well as two evening programs. In one of the programs, parents are invited to participate in Peer Group activities with their children; the other is a Senior-Freshman Activity Night.

PEER LEADERSHIP (#10301)

First 2 trimesters. Form VI. Seniors are selected for this program on the basis of communication skills, leadership potential, and a sense of commitment.

This course is designed to train selected seniors in group dynamics and leadership skills, while helping freshmen adjust to their school and social environments. Course participants provide support and leadership in small-group meetings with freshmen. Two overnight retreats are scheduled along with several evening activities.

SUMMARY OF UPPER SCHOOL COURSE OFFERINGS

COMPUTER SCIENCE

CODE	NAME	USUAL GRADE	LENGTH
09448	SURVEY OF COMPUTER SCIENCE	9–12	SEM (F)
09449	PROGRAMMING	9–12	SEM (S)
09447*	A.P. COMPUTER SCIENCE	10–12	YR
09446	ADVANCED TOPICS	11–12	YR

DRAMA

CODE	NAME	USUAL GRADE	LENGTH
10724	DRAMA 1	9–12	YR
10744	DRAMA 2	10–12	YR
10754	DRAMA 3	11–12	YR
10764	DRAMA 4	12	YR
10794	MOVEMENT FOR ACTORS	10-12	TRI (F)

ENGLISH

CODE	NAME	USUAL GRADE	LENGTH
15304	ENGLISH 9	9	YR
15404	ENGLISH 10	10	YR
15701	AMERICAN LITERATURE	11	SEM (F)
15711	EUROPEAN & BRITISH LITERATURE	12	SEM (F)
15721	WORLD LITERATURE	12	SEM (F)
15232	AMERICAN PERSPECTIVES	11–12	SEM (S)
15012	CREATIVE WRITING	11–12	SEM (S)
15246	CIVIL WAR STUDIES	11–12	SEM (S)
15152	ETHICAL DILEMMA	11–12	SEM (S)
15242	LITERATURE & MADNESS	11–12	SEM (S)
15122	MAGICAL REALISM	11–12	SEM (S)
15112	MYTH IN LITERATURE	11–12	SEM (S)
15042	NEW VOICES	11–12	SEM (S)
15112	MYTH IN LITERATURE	11–12	SEM (S)
15035	PHILOSOPHY	11–12	SEM (S)
15052	SHAKESPEARE	11–12	SEM (S)

FITNESS

CODE	NAME	USUAL GRADE	LENGTH
INTROFIT	INTRO TO PHYSICAL FITNESS	9	TRI
EDFIT	FITNESS EDUCATION	10–11	TRI
AMFIT/PMFIT	BEFORE-/AFTER-SCHOOL FITNESS	11–12	TRI

HEALTH

CODE	NAME	USUAL GRADE	LENGTH
18305	HEALTH 9	9	TRI
18404	HEALTH 10	10	TRI

SUMMARY OF UPPER SCHOOL COURSE OFFERINGS

HISTORY

CODE	NAME	USUAL GRADE	LENGTH
11306	WORLD HISTORY 9	9	YR
11405	WORLD HISTORY 10	10	YR
11509	AMERICAN SOCIETY & CULTURE	11	YR
11007	U.S. ENVIRONMENTAL HISTORY HONORS	11	YR
11508*	A.P. U.S. HISTORY	11	YR
11920*	A.P. GOVERNMENT & POLITICS	11–12	YR
11520F/11520S*	POSTWAR AMERICAN CULTURE	11–12SEM (F) OR YR	
11510*	A.P. EUROPEAN HISTORY	11–12	YR
11511*	CHINA AND MODERN EAST ASIA HONORS	11–12	YR
11905*	A.P. PSYCHOLOGY	11–12	YR

MATHEMATICS

CODE	NAME	USUAL GRADE	LENGTH
13327	INTERMEDIATE ALGEBRA	9	YR
13307	INTERMEDIATE ALGEBRA & GEOMETRY	9	YR
13426	GEOMETRY	9/10	YR
13416/13527	ADVANCED ALGEBRA & TRIGONOMETRY	10/11	YR
13425	GEOMETRY & ADVANCED ALGEBRA	10	YR
13535	PRE-CALCULUS	11	YR
13516	ADVANCED PRE-CALCULUS	11	YR
13617	ANALYSIS	12	YR
13619*	A.P. CALCULUS AB	12	YR
13629*	A.P. CALCULUS BC	12	YR
13618	CALCULUS	12	YR
13640*	MATH 6: MATHEMATICS SEMINAR	12	YR
13656*	DISCRETE MATHEMATICS	12	SEM (F)
13655*	NUMBER THEORY	12	SEM (S)
13641*	A.P. STATISTICS	11/12	YR
11779F/11779	ECONOMICS: PRINCIPLES & ISSUES	11–12SEM (F) OR YR	
11777*	A.P. MACRO/MICROECONOMICS	12	YR

MUSIC

CODE	NAME	USUAL GRADE	LENGTH
14701	C.P. ORCHESTRA/WIND SINFONIA	9–12	YR
14704/14714	MEN'S/WOMEN'S GLEE CLUB	9–12	YR
14705/14703	C.P. MEN'S/WOMEN'S GLEE CLUB	9–12	YR
14755	JAZZ ENSEMBLE	9–12	YR
14764/14774	BUTTONDOWNS/BALLADEERS	9–12	YR
14919*	A.P. MUSIC: THEORY	10–12	YR

SUMMARY OF UPPER SCHOOL COURSE OFFERINGS

SCIENCE

CODE	NAME	USUAL GRADE	LENGTH
17405	CHEM 1: BONDING & REACTIVITY	9–10	SEM (F)
17304	BIO 1: MOLECULAR BASIS OF LIFE	9–10	SEM (S)
17307	BIO 2: ENERGETICS & ADAPTATION	10–11	SEM (F)
17404	CHEM 2: QUANTITATIVE	10–11	SEM (S)
17309*	HONORS BIOLOGY 2	10-11	SEM (F)
17408*	HONORS CHEMISTRY 2	10-11	SEM (S)
17207	INTRODUCTORY PHYSICS	9	YR
17504	PHYSICS	11–12	YR
17508*	HONORS PHYSICS	11–12	YR
17612	SCIENCE FOR 21ST CENTURY	11–12	YR
17604	HUMAN ANATOMY & PHYSIOLOGY	11–12	YR
17609*	A.P. BIOLOGY	11–12	YR
17619*	A.P. CHEMISTRY	11–12	YR
17660*	A.P. PHYSICS C - MECHANICS	11–12	YR
17661*	A.P. PHYSICS C - ELECTRICITY/MAGNETISM	12	YR
17630	ADVANCED PHYSICS - MDLG & VISUAL DISP	11–12	YR
17631	INTRO TO SCIENTIFIC RESEARCH	11–12	YR
17613*	HONORS ENV SCIENCE: FEEDING,FUELING	11-12	YR

VISUAL ARTS

CODE	NAME	USUAL GRADE	LENGTH
12304	ART FUNDAMENTALS	9–12	YR
12756	CLAYWORKING 1	10–12	YR
12807	PHOTOGRAPHY 1	10–12	YR
12707	FILMMAKING & VIDEO	10–12	YR
12719	ENVIRONMENTAL ART	10–12	SEM (F)
12726	SCULPTURE	10–12	YR
12837	ARCHITECTURE, DRAFTING, & DESIGN 1	10–12	YR
12104	DRAWING & PAINTING 1	10–12	YR
12766	CLAYWORKING 2	11–12	YR
12805	PHOTOGRAPHY 2	11–12	YR
12847	ARCHITECTURE, DRAFTING, & DESIGN 2	11–12	YR
12204	DRAWING AND PAINTING 2	11-12	YR
12739*	PORTFOLIO DEVELOPMENT	11–12	YR
12743	ADVANCED TOPICS IN ART	11–12	YR
12909*	A.P. ART HISTORY	11–12	YR

* = Honors/A.P. YR = Year SEM = Semester TRI = Trimester
(F) = Fall (W) = Winter (S) = Spring

SUMMARY OF UPPER SCHOOL COURSE OFFERINGS

WORLD LANGUAGES

CODE	NAME	USUAL GRADE	LENGTH
19901	CHINESE 1	9-11	YR
19902	CHINESE 2	9-12	YR
19905	CHINESE 3	10-12	YR
19906	CHINESE 4 PRE-A.P.	10-12	YR
19904	CHINESE 5	11-12	YR
19907*	CHINESE 5 A.P.	11-12	YR
19908*	CHINESE 6 HONORS	11-12	YR
19909*	CHINESE 7 ADVANCED	12	YR
19714	FRENCH 1	9-11	YR
19715	FRENCH 1/2	9-12	YR
19314	FRENCH 2	9-12	YR
19716	FRENCH 2/3	9-12	YR
19414	FRENCH 3	9-12	YR
19514	FRENCH 4	10-12	YR
19515*	FRENCH 4 HONORS	10-12	YR
19618	FRENCH 5	11-12	YR
19620*	FRENCH ADVANCED TOPICS 1	11-12	YR
19621*	FRENCH ADVANCED TOPICS 2	11-12	YR
19658*	FRENCH 6 HONORS	11-12	YR
19724	GERMAN 1	9-11	YR
19324	GERMAN 2	9-12	YR
19424	GERMAN 3	10-12	YR
19524*	GERMAN 4 HONORS	10-12	YR
19630*	GERMAN ADVANCED TOPICS 1	11-12	YR
19631*	GERMAN ADVANCED TOPICS 2	11-12	YR
19644	SPANISH 1	9-11	YR
19345	SPANISH 1/2	9-12	YR
19344	SPANISH 2	9-12	YR
19346	SPANISH 2/3	9-12	YR
19444	SPANISH 3	9-12	YR
19546	SPANISH 4 PRE-A.P.	10-12	YR
19545	SPANISH 4	10-12	YR
19646	SPANISH 5	11-12	YR
19647*	SPANISH 5 A.P. LANGUAGE	11-12	YR
19649	SPANISH 6	11-12	YR
19648*	SPANISH 6 HONORS LITERATURE	11-12	YR
19800*	SPANISH 7 ADVANCED LIT. & COMP.	12	YR
19734	LATIN 1	9-11	YR
19334	LATIN 2	9-12	YR
19434	LATIN 3	9-12	YR
19534	LATIN 4	10-12	YR
19535	LATIN 5	11-12	YR
19638*	LATIN 5 A.P.	11-12	YR
19641*	LATIN 6 HONORS	11-12	YR

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(F) = Fall (W) = Winter (S) = Spring

SUMMARY OF UPPER SCHOOL COURSE OFFERINGS

INTERDEPARTMENTAL COURSES

CODE	NAME	USUAL GRADE	LENGTH
10994/10995	CONTEMP AMERICAN ISSUES HONORS	11–12	SEM (F/S)
10999*	FREEDOM	11–12	YR
10777/10777A	DANCE 1 (ART/FITNESS CREDIT)	9–12	YR
10778/10778A	DANCE 2 (ART/FITNESS CREDIT)	10–12	YR
99000	FINANCIAL LITERACY 9	9	TRI
99100	FINANCIAL LITERACY LECTURE SERIES	12	3X/YR
99901	PUBLIC SPEAKING	9-12	TRI
10725	YEARBOOK	9-12	YR

OTHER COURSES

CODE	NAME	USUAL GRADE	LENGTH
—	COMMUNITY SERVICE	9–12	10 HR/YR
10401	DRIVER ED.	10	TRI
10300	PEER GROUP	9	2 TRI (F,W)
10301	PEER LEADERSHIP	12	2 TRI (F,W)

THE PINGRY SCHOOL
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