Dear Middle School Students and Parents,

The word ‘education’ is derived from the Latin root *duco* or *ducere*, meaning to lead. The prefix, *ex*, out of, is added, and over time the verb *educare* has evolved on its own to be specifically understood as ‘drawing out, in terms of children.’ Understanding that the curriculum is our vehicle for education, our opportunity to draw students out and widen their base of knowledge, perspective, experience, and skill, the courses that comprise the Middle School program are designed to complement each other both horizontally (at grade level) and vertically (within a discipline). Teachers working at the same grade level coordinate with colleagues to seek interdisciplinary opportunities, but also to make sure expectations are aligned. Teachers working within the same department select and arrange content in logical sequence, and they also coordinate the progression of skill development.

Learning should be a joyful process, and ideally one that fosters insatiable curiosity. Enclosed you will find course descriptions for the 2020-2021 school year. We hope that as you read through them, your curiosity is piqued and that you look forward towards next year with eager anticipation.

Our mission at Hackley is to “challenge students to grow in character, scholarship and accomplishment, to offer unreserved effort, and to learn from our community’s varying perspectives and backgrounds in our community and the world.” The course descriptions set the road map for this goal. We look forward to traveling this path with you and learning together.

Sincerely,

Cyndy Jean
Middle School Director

and

The Middle School Faculty
CLASSICAL LANGUAGE: LATIN
The study of Latin emphasizes mastery of vocabulary, facility with the nuances of an inflected language, command of complex grammatical constructions, accuracy in translation, as well as familiarity with the history, myths, customs of daily life, and culture of the ancient Romans. Particular attention is paid to increasing the students’ English vocabulary through the study of derivatives from Latin. Students are introduced to and encouraged to use the many and varied online resources which complement traditional textbooks. Students finishing the three-year Latin sequence in eighth grade are credited with two full years of language study and will go on to the Latin 3 course in ninth grade. In addition to Latin, the Department of Classics offers Etymology for those students not studying a foreign language in the eighth grade.

591. Latin 6
The Middle School Latin curriculum uses the Oxford Latin Course series. Students are introduced to the character Quintus Horatius Flaccus, the poet Horace, as a young boy, whose life they will follow throughout the Oxford series. In this way, the history of the Late Republic and Early Empire is presented. Students in the first year are introduced to the concepts of inflection, declension, conjugation, dictionary entry, as well as other grammatical constructions. The skill of translation is practiced from Latin into English and from English into Latin. The present tense, the first three declensions, and noun/adjective agreement are presented. Students follow Quintus’ early experiences in school, including his introduction to the stories of Homer’s Iliad and Vergil’s Aeneid and to major figures of early Roman history.

Text: Balme and Morwood, Oxford Latin Course Part I (2nd edition)

592. Latin 7
A continuation of the previous year, this course traces the life of Quintus as he studies in Rome and eventually Athens, where he encounters the art, architecture, and philosophy of Ancient Greece. Students experience the assassination of Julius Caesar and the ensuing civil war through the eyes of Quintus and his friends. Students learn the imperfect, perfect, and future tenses, the passive voice, the present participle, the fourth and fifth declensions, comparison of adjectives and adverbs, and the relative pronoun. Grammatical constructions are introduced in the reading passages before they are formally drilled in the grammar section, offering students the chance to use intuition in translation.

Text: Balme and Morwood, Oxford Latin Course Part II (2nd edition)

593. Latin 8
Latin 8 corresponds to the Upper School Latin II course. Students learn the subjunctive mood and grammatical constructions that employ the subjunctive, such as result clauses, indirect questions, and conditions. The ablative absolute, indirect statement, and deponent verbs are also introduced. Quintus serves in the army (on the side of Brutus) returns to Italy, and ultimately finds his way back to Rome, where he discovers his talent for poetry. As Quintus becomes a part of the inner circle of the emperor Augustus, students begin to read his poetry in its original form, to which they will return in Latin III and IV.
COMPUTERS
Students today live in a digitized, computerized, programmable world. To make sense of it, they need to understand computer science. Middle School Computer Science classes introduce computer programming and offer students an opportunity to learn and use new technologies. With an emphasis on communicating their ideas clearly through a variety of media, the four-year sequence allows students to develop logical reasoning, algorithmic thinking, design and structured problem solving, and digital literacy.

705. Computer 5
This one-trimester course reinforces concepts learned in grade 4, moving from basic to more complex programming topics including conditional statements, using variables, simple loops, writing simple programs, and creating a simple game using the SCRATCH programming environment.

706. Computer 6
This one-trimester course reinforces the computer programming concepts learned in grade 5, plus introduces students to binary programming, use of the command line and file management, and an investigation of the hardware used in contemporary computing devices.

707. Computer 7
This one-trimester course continues the study of problem solving and programming through a design-based approach. Using the Scratch programming environment, seventh grade students engage in creative computing to support their development as computational thinkers. This course offers students the opportunity to draw on computational concepts, practices, and perspectives through a wide variety of activities designed to explore examples in each of these areas. Students will ultimately apply what they have learned to the world of physical computing by programming an external microprocessor that will run an external object of their own design.

708. Computer 8
Building on the concepts learned in seventh grade, the one-trimester Computer 8 course incorporates new programming environments and enhances students’ skills in the areas of problem solving, computational thinking, and programming. Concepts learned through this project-based course include scripting and object-based programming. Students will apply what they have learned and program an external microprocessor that will incorporate a number of input and output sources.

ENGLISH
The English program seeks to foster students’ enjoyment of literature and intellectual inquiry, to
develop their capacity to read with insight and sensitivity, to promote their skills in interpreting the world around them, and to cultivate their ability to express themselves with power and clarity both orally and in writing.

Presupposing that the better one reads and understands, the better one will write, and that the better one writes, the better one will read and understand, the English program nurtures student growth with carefully planned experiences exploring and emulating the work of effective and distinguished writers in a variety of genres.

Students receive integrated instruction in the basics of reading, and writing. Subjects include vocabulary, spelling, grammar, sentence mechanics, paragraph structure, organization, basic logic, the use of evidence, and even some exploration of rhetoric and style—including creative use of diction and syntax.

**150. English 5**
Fifth grade English students expand upon their knowledge of reading texts, writing analytically and creatively, and thinking critically through active participation in class discussions, group projects, occasional presentations, and creative writing.

Throughout the year, students are asked to take risks in class discussions based on their work on assigned readings and grammar studies. Students work on active reading skills to develop their understanding of the author’s purpose and theme. Together, they learn to analyze characters and passages to gain a better understanding of the texts read in class, while being asked to identify examples of figurative language embedded in the text. As students learn to annotate works of literature – highlighting, writing marginalia, and asking questions of the text – they learn to use their annotations to explore analytical arguments through writing. Fifth graders also use their informal writing to develop analytical ideas, and they respond to QQA (Question, Quote, Analysis) prompts.

Students divide their time between analytical and creative writing. They write memoirs, poetry, short stories/responses from the perspectives of literary characters, their own Greek myths, and rewrites of the last chapters of novels they have read in order to explore alternate endings and to summarize sequels. Proofreading skills, vocabulary, grammar, and organizational techniques are the foundations of writing lessons. Students learn systematically how to pre-write, draft, revise, edit, and publish analytical paragraphs, poems, short stories/responses, and memoirs. They revise constantly to ensure that their writing includes a strong thesis statement, good organization, and increasing sophistication of figurative and expressive language.

As students build on their reading skills, they are encouraged to develop an increasing love of fiction and nonfiction texts, as well as an appreciation for sharing literature with their peers. Students study vocabulary in the context of the texts read in class, and they strengthen their understanding of the shades of meaning of words and learn to apply them in their writing.

Technology plays a critical role in the curriculum. Students not only learn responsible use of technology in order to produce work both in and outside of class, but also learn how to use
certain devices and software (e.g. Google Slides and Google Docs), thereby enhancing their technological literacy. Though keyboard typing is not directly instructed, students practice touch-typing and keyboard typing often when completing writing assignments.

**In recent years, the fifth-grade curriculum has included such texts as the following:**

- Ji-Li Jiang, *Red Scarf Girl*
- Elizabeth George Speare, *The Sign of the Beaver*
- Tina Packer, *Tales from Shakespeare*
- D’Aulaires, *Greek Myths*
- Jerry Spinelli, *Maniac Magee*
- Linda Sue Park, *A Single Shard*
- *The Oxford Illustrated Book of American Children’s Poems*
- Grammar Textbook: *Rules of the Game*

**160. English 6**

Most protagonists strive to escape their confining situations by using their imaginations to create a more harmonious existence. These imaginative efforts take the form of intellectual, social, and spiritual aspirations. Still, what makes these characters lives less than they want? What can they do to overcome their limits and live a happier life? What will they find on their quest for a better life? The answer to these questions lies in the visions presented by the authors, poets, and playwrights studied this year.

Each unit draws on a variety of approaches ranging from whole class discussions to small group projects to individual presentations. In addition, students complete at least two interdisciplinary projects each year. In the process, students study such literary concepts as plot, characterization, setting, foreshadowing, flashback, metaphor, simile, personification, and symbolism. In addition, they learn how these devices each help reinforce the theme.

Students write both formal paragraphs and creative pieces. In fact, they develop expository, narrative, descriptive, and persuasive pieces, as well as short stories, myths, free writes, poems, and news articles/features. In the process, they refine the skills of outlining/webbing, organizing ideas, and writing both analytical responses to texts and analytical paragraphs.

Students study vocabulary drawn from class texts, as well as from a master list of words often misused in student writing. They practice grammar not only in the context of their reading and their own writing, but also in weekly formal grammar study. Grammar study includes parts of speech, pronoun and verb agreement, capitalization, modifier usage, and punctuation (commas, semicolons, and colons). They also learn unified and varied sentence structure, transitions, punctuation, and proper citation/bibliographic format. Further writing skills develop through teacher- and student-generated sentence completions, analogies, original sentences, and crossword puzzles.

At the year’s end, student work culminates in consolidating insights on the courses theme,
which is “What makes a hero?”

**In recent years, the sixth-grade curriculum has included such texts as the following:**
Sharon Draper, *Out of My Mind*
Wendy Mass, *A Mango-Shaped Space*
Reginald Rose, *Twelve Angry Men*
Karen Cushman, *Catherine Called Birdy*
Salman Rushdie, *Haroun and the Sea of Stories*
Tanya Lee Stone, *Almost Astronauts*
*Grammar for Writing: Grade 9*
Assorted short stories, poems, & articles

**170. English 7**
Students will explore a variety of text about characters facing vastly different challenges. In doing so, students will discover significant similarities among those characters—most important, that they ask themselves the same questions we often ask ourselves: Who are we? Where are we going? In what do we believe? How do we fit into the world around us?

Students will examine the choices characters make, the obstacles they overcome, and the people who help and hinder them along the way. In addition, they will consider their own stories, seeking to develop a clearer sense of identity and voice as they develop their skills as readers, writers and thinkers.

Students concentrate on four and five-paragraph composition, becoming increasingly aware of the importance of both the thesis and the topic sentence. In addition, they have the opportunity to choose their own outside reading projects and to experiment with creative writing—with an emphasis on memoir and creative non-fiction.

Students study vocabulary in the context of the texts they read. After a brief review of grammar previously studied, students confront more difficult grammatical constructions, including complements, phrases, pronoun case and compound and complex sentences. They also confront matters of mechanics and usage. A public-speaking project culminates the year and encourages students to explore issues of identity, freedom, and culture in a first-person narrative

**In recent years, the seventh-grade curriculum has included such texts as the following:**
Grimes, Nikki, *Bronx Masquerade*
Alvarez, A., *Before We Were Free*
L’Engle, M., *A Wrinkle in Time*
Orwell, G., *Animal Farm*
Sadlier-Oxford, *Grammar for Writing, Fifth Course*
Shakespeare, W., *A Midsummer Night’s Dream*
Sword, A., *A Child’s Anthology of Poetry*
Wiesel, E., *Night*

180. **English 8**

Through a variety of texts (novels, poems, short stories, scripts) and visual media (films, plays, visual art), the eighth-grade curriculum invites students to explore identity. Students will examine personal identifiers such as race, ethnicity, gender, socio-economic class, religion, ability (mental and/or physical) and sexual orientation, as well as a number of cultural identifiers such as family composition, language, and belief structure. In so doing, eighth-graders will investigate their own identities and ask themselves the following essential questions:

- *What elements comprise our identity?*
- *Are those elements static or do they change over time?*
- *To what extent do they shape our belief system and behavior, and to what extent do our belief system and behavior shape our identity?*
- *How does labeling and stereotyping influence how we look at and understand the world?*

By means of our investigation of identity, we will focus intensely on honing reading and writing skills – particularly close reading, literary analysis, and both analytical and creative writing. Students will analyze characters through the lens of identity and consider how various identifiers influence characters’ decisions and behaviors. To do this effectively, students must first practice close reading and passage analysis skills. Through passage analyses and generative writing, students will begin developing theses, which they will test through their own writing. A major emphasis will be placed on defending theses with text-based evidence. Early assignments will focus on refining paragraph structure and development, but as the year progresses, students will engage in more sustained writing assignments, like analytical and persuasive essays. Creative writing also plays an important role in the curriculum, giving students the opportunity to explore identity through characters they create. In addition, it helps develop their facility and comfort with language!

Grammar and vocabulary feature prominently in the curriculum as well. Students review parts of speech and basic parts of a sentence. They learn how to enhance clarity and depth through varied sentence structure. Students discuss punctuation and explore how it can affect meaning in their own writing. Vocabulary is selected from the course texts and presented to students using various methods. To demonstrate mastery of their new words, students are encouraged to use them in their own writing.

**Possible texts and films include:**

Na, An, *A Step from Heaven*
Cisneros, Sandra, *The House on Mango Street*
Jimenez, Francisco, *The Circuit*
Lee, Harper, *To Kill a Mockingbird*
Shakespeare, William, *The Merchant of Venice*
HEALTH EDUCATION

The Health Education curriculum in the Middle School is a compilation of the issues that affect the lives of today’s adolescents. Integral to the curriculum is the development of communication skills, decision making, and critical thinking with respect to knowledge, attitudes, and behavior. The topics to be covered include: Creating and balancing a healthy lifestyle, Nutrition, Mental/Emotional Health, Communication and Healthy Relationships, Inclusivity and Belonging, Sexual Health, Substance Abuse Prevention, and stress management. There are selections from various textbooks, articles and other sources compiled as reference material in addition to guest speakers, and videos.

995. Health 5/ 996. Health 6
Fifth/sixth grade health is an introduction to the middle school program and integrated into physical education classes. Communication and decision-making skills are emphasized and practiced throughout the curriculum. The topic areas include nutrition and maintaining a healthy lifestyle; smoking prevention; stress management; and puberty education. Fifth/sixth grade health also includes a unit on bullying.

997. Health 7
Seventh grade health is a two semester course which meets three times a cycle and focuses on wellness. Students learn to recognize that their physical health, mental/emotional health and social health are all interrelated. We take a close look at the influence of the media on body image and how it impacts the behavior and self-esteem of adolescents. Some of the topics introduced include nutrition, peer-pressure, substance abuse and disease prevention. Responsibility and decision-making skills are reinforced throughout the course.

998. Health 8
Eighth grade health is a two semester course, meeting three times a cycle. In the eighth grade the skills of conflict resolution, decision-making and stress management are reinforced. Students learn to recognize risk factors within the context of substance use and sexually transmitted diseases. Emphasis is placed on an individual’s increasing responsibility to weigh the consequences of decision-making throughout their lifetime

HISTORY AND SOCIAL SCIENCE

In History, Middle School students are given an introduction to a selected area of humanity’s past record of achievement so that they will understand not only their own civilization, but also better understand themselves. Closely related is the necessity for encouraging independent study and thought; students must learn to think critically about the problems of their era, and they must be encouraged to pursue their studies beyond the time of the specific course involved. The study of history is also deeply humanistic. When students immerse themselves in events such as the background of a war or revolution, they ought to become more mature; they will
have learned something fundamental about the nature of human beings. History is the great storehouse of human experience; in this sense it is closely related to poetry, literature and philosophy in its value to the student. Basic skill building is an important part of the program. Learning how to evaluate evidence, how to use the library, how to write cogent and well-organized papers, how to read maps and charts, are essential features of all courses in the History and Social Science program.

250. History 5: Ancient Cultures: How Do We Learn About History?
Ancient Civilizations: Growth and Empire

In fifth grade history, students start the year exploring key concepts of the development of a civilization and by engaging in activities that foster an understanding of how ancient people moved beyond subsistence farming. During the course of the year, students immerse themselves in the study of four ancient cultures: Mesopotamia, Egypt, Greece and Rome. Each unit combines simulations, informal and formal writing, and reading and note-taking skills. This integrated curriculum provides direct instruction in study skills and content information, and requires students to discuss, interpret and present what they understand. For example, in the Mesopotamia simulation, students vying for control of a board based on a map of the Ancient Near East, earn points by completing assignments and by applying what they are learning as they make decisions for their teams. As each team tries to build an empire that will control the board, all of the students learn about how empires were built and at what cost. Each unit reviews the essential questions: What did this civilization accomplish, both for good and ill, through their work as empire builders? How are empires built? Why do empires end?

260. History 6: Discovering History
The sixth grade history course focuses on medieval and Renaissance history, beginning with the onset of the Dark Ages in the 5th century, and ending with the revival of European art, literature, and culture in the 16th century. Students will traverse many of the most important events of this period, from the collapse of Rome, the crowning of Charlemagne, and the era of the Crusades. We will also explore the changes brought upon by the Black Death.

This course pays particular attention to the many facets of history. We look at political history, reviewing the methods and systems people used to govern. Cultural history is studied as well. Students will become familiar with the way people lived during the medieval period. A study of economics and culture is also stressed. Cultural diffusion is also a major subject of this course. Students will learn how watershed moments like the Viking period, and the Crusades, had an impact on the relationships among people from all over the European and Arabic world. Religion is also a major focal point, and will be an important topic throughout the course of the year.

The course also has a strong skills element. Students will begin writing full paragraphs at the beginning of the year, and end writing multi-paragraph works. Annotating skills are also taught. Students will become used to looking at primary sources in order to better understand the past. Much time is also devoted to developing research skills, with students working on numerous projects throughout the year.
270. **History 7: Cultural Perspectives: Asia, Africa and Mesoamerica, 1000-1600**

The course examines the histories of cultures in the three regions, exploring themes such as: Cultural diffusion; rebellion and discontent; how governments fail; economies and the basis of value; social structures; definitions of “civilization,” and others. Examples may be found in the Yuan-Ming period in China, the Mali-Songhai in Africa and the Toltec-Aztec in Mesoamerica, among others. The study of these cultures reveals to students the richness of the various regions in the period before European contact. Skills emphasized in the course include research and writing, map skills, debate and the development of sustained argument, and the ongoing skills related to reading, note-taking and others found earlier in the middle school curriculum.

280. **History 8: Religion in World Societies**

The eighth grade course examines major world religions in the context of the societies in which they emerged and with the goal of understanding their continuing importance. Hinduism, Buddhism, Daoism, Judaism, Christianity and Islam are studied as they emerge from their particular historical circumstances, but also as systems of thought and belief. Attention is paid to the sacred texts of world religions, and to the moral and ethical systems that blossom from those texts and from some of the major religious figures who have contributed to the development of these religious traditions. Students are asked to understand major tenets of each religion, but also to gain a greater understanding of the questions and answers which overarch religious belief. Emphasis will also be placed on the ways in which religions have survived and changed over time, including the modern era. The course continues to build on skills developed earlier in the middle school history curriculum, including the writing of a research paper near the year’s end.

**MATHEMATICS**

All the mathematics courses in the Middle School share common goals. Rote, mechanical approaches to problem solving and the belief that memorization is the best way to learn mathematics are discouraged. Instead, students are compelled to understand the concepts underlying the methods they use in doing arithmetic and algebraic computations. An attempt is made to connect mathematics to the everyday experience of students using real life problems and projects that develop a mathematical “common sense” and a solid foundation for learning more mathematics with enthusiasm and confidence.

Teachers in the mathematics department stress the process of learning and not merely the product in order to improve logical reasoning and self-reliance. Teachers strive to develop in their students a better understanding and awareness of the relationship among factual knowledge, thinking processes, and problem solving ability.

For all courses in Middle School Math, we balance the use of technology with more traditional problem solving methods. Students study arithmetic algorithms and algebraic manipulations. But this traditional content is often reviewed using web-based skill-testing programs such as IXL. Teachers present material and students work together to solve problems and explain
concepts, but demonstration technology such as Khan Academy and Desmos are also used to augment these experiences. In addition, calculation aids like calculators and spreadsheets are woven into the curriculum where appropriate.

350. Mathematics 5
The primary focus of the fifth grade math curriculum is to help our students make sense of mathematics in a meaningful way as they build upon the foundations established in the lower school. The curriculum revolves around number sense in whole numbers, fractions and decimals, taught using pictorial models. In addition to developing discipline in their written work, students will gain mental math skills in all four operations. We will explore equivalence and proportionality through our work with fractions, ratios and percentages. Following our work on decimal operations, students will have an opportunity to practice converting within the metric system. Many pre-algebra concepts, such as order of operations, exponents and prime factorization are also investigated. Geometry and spatial relations are explored as a part of our course of study along with basic statistics and a variety of real-world problem solving situations. In Geometry, students will add the area of triangles to their knowledge of 2-dimensional shapes. They will use protractors to measure angles and they we learn angle properties that will help to determine missing angles involving triangles, as well as intersecting lines. Throughout the year we supplement the content using manipulatives, games, videos, estimation, technology, and hands-on activities. In addition, students generate math projects to extend or integrate with other subject areas, such as science, art and history. For example, students will create line designs and tessellations, they research mathematicians, and they will work in collaboration with science classes as they engage in a maple syrup project. Students are also asked to conduct an independent research project on a topic of their choice. This project culminates in a video presentation using Explain Everything on iPads.


360. Mathematics 6
This course emphasizes the development of students’ critical-thinking skills in mathematics. We build upon the foundations established in Math 5 regarding fractions, decimals, and whole number sense. Students will use their knowledge of these three topics to make connections to percentages, probability, proportional thinking, and integers. Students will also investigate two- and three-dimensional figures to expand their spatial reasoning and visual thinking skills. During our longer blocks, students are engaged in group activities, projects, exercises with manipulatives, games, and other non-routine materials such as Percento, Pentominoes, and Brain Maths puzzles to further extend their knowledge of mathematics. A variety of creative problems are consistently woven into the curriculum using the Primary Mathematics materials. Through our course work, students will have developed the basic pre-algebra skills necessary to advance to the next level of our Middle School math program.

During the first trimester, students build upon the foundations established in Math 6 regarding ratios, percentages, and integer operations. Students extend their knowledge in these areas by studying operations with signed decimals and fractions and studying statistic concepts involving mean, median and mode. The second trimester introduces students to the fundamental algebraic concepts of evaluating and simplifying algebraic expressions. They then apply these skills to writing algebraic expressions for verbal phrases and analyzing algebraic equations and formulas. Students also solve basic algebraic equations. Students then apply these new algebraic tools to extend their knowledge in the areas of ratios and percent. During the third trimester, students explore sequences and connect patterns in tables to equations and graphs. Students also apply algebraic problem solving methods to geometric concepts, including finding missing angles, perimeters and areas of plane figures, and volumes and surface areas of solids. Students work on a project that incorporates a variety of trimester 3 concepts including scale drawing, rates, and proportional reasoning. These quotidian experiences enable students to develop general procedures and strategies for problem solving. Student engagement is regularly enhanced through games, puzzles, and projects that capitalize upon longer block periods.

Texts: Discovering Mathematics CC Textbook 7A DMCCT7A
Discovering Mathematics CC Workbook 7A DMCCW7A
Discovering Mathematics CC Textbook 7B DMCCT7B
Discovering Mathematics CC Workbook 7B DMCCW7A

**375. Algebra I** (Grade 7) / **380. Algebra I** (Grade 8)
This is a course for students judged ready for a rigorous algebra course in the eighth grade, as well as for a select group of seventh graders who are ready to accelerate. The first trimester covers operations with integers and rational numbers, one-variable equations and inequalities, graphing linear equations, and relations and functions. The second trimester deals with systems of equations, absolute value and inequalities, exponents, and polynomials operations. In the third trimester, students study factoring, solving and graphing quadratic equations, and rational and radical expressions and equations.

Text: McDougal Littell, *Algebra I*

**377. Linear Topics in Algebra 8**
This course is designed to reinforce the skills and extend the algebra concepts developed during Math 7. Over the year, students study the linear topics of the Algebra curriculum while also preparing for the ninth-grade physics course work. During the first trimester, students explore the relationships between linear tables, graphs, and equations by studying numerical sequences, break-even scenarios such as cost comparisons and revenue-expense situations, and distance-speed-time correlations. In the second trimester, students study simplifying algebraic
expressions, solving one-variable linear equations, and applying these skills to various word problem scenarios. In the third trimester, they expand their knowledge for graphing lines, relating tables of values to slopes and intercepts. Students continue their work on linear graphing concepts and word problems for two linearly related variables. Student engagement is regularly enhanced through games, puzzles, and projects that capitalize upon longer block periods. Technology supports instruction throughout the year.

Texts: McDougal Littell, *Algebra 1*

### 385. Geometry 8

This course assumes one year of algebra and some familiarity with the geometry taught earlier in the middle school. The first trimester covers inductive reasoning, introduction to two-column proofs, properties of parallel lines, and basic constructions. During the second trimester, students study congruent triangles, similarity, the Pythagorean theorem, and special right triangles. In the third trimester, students learn about circles, the area of polygons and circles, surface area and volume, and trigonometry. In addition, students learn to interpret statistical graphs, including dot, stem, box and whisker plot, and scatter plots.

Text: *Geometry* by Jurgensen, Brown, Jurgensen

### MODERN LANGUAGES

By studying a modern language over a three-year period, Middle School students build a strong foundation for future work. During this early period, they are also exposed to the cultures associated with the language studied. More importantly, they develop their oral skills at a time when they are developmentally ready to assimilate oral techniques with ease. Students who complete the three-year modern language sequence in the eighth grade are given a minimum of one year of credit toward the Upper School language requirement.

### FRENCH

#### 571. French 6

This is the first course of a three-year sequence, after which students enter French II in the Upper School. Four units are covered in this first year and touch on themes familiar to the students: greeting people, school, family and friends, and food. These themes are presented in an engaging manner that encompasses not only basic vocabulary and grammatical structures, but also phonetics, a narrative in a roman-photo format, as well as articles on culture from all parts of the Francophone world. A workbook provides written practice for vocabulary and grammar while an activity book provides exercises related to oral materials. Each unit includes video and on-line resources to engage the students in the current French world. Materials developed by the teacher, including student projects, will supplement the curriculum. Oral production of French is emphasized from the beginning of the course.

Text: Textbook, workbook and Supersite: D’accord 1
572. French 7
This is the second course in the three-year Middle School program. An additional four thematic units are presented this year: sports and leisure time activities, holidays and celebrations, vacation and travel, and finally, house and home. The materials and their structure are the same as in French 6 and build on the already established skills. More complicated grammatical constructions are introduced including more irregular verbs, direct and indirect object pronouns and the past tenses. This gives the students greater ability to express themselves in both oral and written communication. Oral communication uniquely in the target language becomes a more achievable goal and expectation. Projects and assessments can begin to include increasing amounts of oral presentation. More sophisticated reading material can also be introduced.

Text: Textbook, workbook and Supersite: D’accord 1

573. French 8
This is the third course in the three-year Middle School program. As in the previous two years, four more thematic units will be introduced. The themes include more on the home and chores, food in all its cultural diversity in France, health as well as daily routines of French life, and technology. The grammar of the two previous years is reinforced and additional irregular forms of verbs are stressed. Students continue to refine their understanding of the uses of the past tense and the conditional is added, as are reflexive verbs. They begin to learn to make comparisons and to control all the object pronouns. By this point the class is conducted almost exclusively in French and it is expected that the students communicate for the most part in French. Students will also begin to expand their horizons as they study more about the French-speaking world outside of France. They will begin to work on projects that reflect this diversity.

Text: Textbook, workbook and Supersite: D’accord 1

SPANISH

580. Spanish 5
Spanish 5 aims to continue developing beginning aural and oral skills in our youngest middle schoolers. Through thematic units based on our textbook, Español Santillana, students will increase their vocabulary and grammar knowledge as well as learn cultural traditions of the Spanish-speaking world. Classes are fully immersed and students advance in their learning through interactive activities, songs and games. Students will conclude the year having learned the conjugations of regular verbs in the present, gender and number agreement, articles, possessives, expressions of location and the difference between the verbs SER and ESTAR.

581. Spanish 6
This is a continuing course in the Middle School Spanish language sequence. Students in this course learn through many language-learning techniques including a greater use of language in “real” contexts, mini-dramas, memorization, and audio-visual materials. Grammar and vocabulary are learned within the context of the students’ daily activities at school and at home.
They learn to communicate their ideas using both regular and irregular verbs in the present tense. They master many basic grammatical structures such as agreement of gender and number of articles, nouns and adjectives; and they also learn essential vocabulary pertaining to greetings, school activities, weather, professions, eating habits. In addition to studying linguistics, students continue to learn about various cultural and historic aspects of the Spanish-speaking world.

Text: Textbook, workbook and Supersite: Descubre 1

582. Spanish 7
This course, conducted mainly in Spanish, reviews and expands upon the grammar and vocabulary presented in the previous year. Students learn many idiomatic expressions, verb conjugations in the immediate future and the recent past, new irregular verbs, reflexive verbs, direct and indirect object pronouns, and sufficient vocabulary to support the continued growth of oral and written expression in the target language. In addition to linguistic study, students continue to learn about various cultural and historic aspects of the Spanish-speaking world.

Text: Textbook, workbook and Supersite: Descubre 1

583. Spanish 8
This course, conducted primarily in Spanish, emphasizes speaking and listening skills while developing more advanced reading and writing skills. The aim of this course is to equip students for the transition to Upper School Spanish II or Spanish III. Grammar will include continued study of object pronouns, reflexive, irregular and idiosyncratic verb usage and the addition of several new tenses. Additionally, students continue to study further thematic vocabulary. Historical and cultural components also will be incorporated as will a first taste of literature and cinema [level appropriate/time allowing].

Placement in Upper School Spanish III or Spanish II is dependent on assessments during the year, February examination results, and the recommendation of both teacher and Head of Department.

Texts: Textbook, workbook and Supersite: Descubre 2

583X. Accelerated Spanish 8X
This course, conducted in Spanish, emphasizes speaking and listening skills while developing more advanced reading and writing skills. The aim of this course is to equip students for the transition to Upper School Accelerated Spanish III or Spanish III. Grammar will include continued study of object pronouns, reflexive, irregular and idiosyncratic verb usage, and the addition of many new tenses, as well as the imperative and subjunctive moods. Students continue to study further thematic vocabulary. Historical and cultural components also will be incorporated as well as appropriate literature and cinema, time allowing.

Placement in Accelerated Spanish 8X is dependent on assessments during the year, February examination results, a placement test, and the recommendation of both teacher and Head of Department.
Placement in Accelerated Spanish III or Spanish III is dependent on assessments during the year, February examination results, and the recommendation of both teacher and Head of Department.

Texts: Textbook, workbook and Supersite: Descubre 2

CHINESE

551. Chinese 6
This introductory course is for those students who wish to begin their study of the Mandarin dialect of Chinese in the Middle School. In the early stage of the course, students will learn to read and write pinyin (the phonetic representation of Chinese sounds), and will then move on to learning the techniques of writing simplified Chinese characters and recognizing different structures of character composition and their radicals. By year’s end they will learn to write or recognize about 125 characters. The approach will be thematic, and new material will be incorporated by means of basic conversations and simple texts. Elements of Chinese culture will be integrated into the course. A textbook and interactive website will form the central core of the course, supplemented by audio-visual and web based resources which will be used for home and class work.
Text and Workbook: Discovering Chinese Pro, Volume 1, Lessons 1 – 12, Simplified Chinese. Website Subscription: Discovering Chinese Pro

552. Chinese 7
This is the second course in the three-year Middle School sequence of Chinese language study. Students will continue developing the skills that were established in Chinese 6, with more complex conversational and grammatical forms introduced at a faster pace. Basic pinyin, character writing and grammatical structures are reviewed when new units are introduced, enabling students to solidify their prior knowledge of the Chinese language while learning new material. By year’s end, students will learn to write or recognize approximately 150 additional characters and know how to input characters electronically for presentations and correspondence. Students will expand their basic communication skills through speaking tasks and will read and write short passages on familiar and personal topics. Chinese history and culture will continue to be introduced to help students develop a broader understanding and appreciation for their study of the language. A textbook and interactive website will form the central core of the course, supplemented by audio-visual and web based resources which will be used for home and class work.

553. Chinese 8
This is the final course in the three-year Middle School Chinese language sequence. The approach remains thematic, and new material will be incorporated by means of basic conversations and longer and more complex texts. Students will continue to work on Chinese communicative skills, including speaking tasks that use new grammatical forms and vocabulary
and will learn to write or recognize approximately 200 additional characters. Students will expand their skills, reading, writing and speaking short passages on familiar and personal topics. Authentic Chinese resources will be introduced. In addition to the text materials, Chinese readers and web-based resources will also be utilized in class and for home study. Chinese history and culture will continue to be incorporated into the lessons discussions to help students develop a broader understanding and appreciation for their study of the language and culture of China.


MIDDLE SCHOOL MUSIC
Given proper training and abundant encouragement, a young musician’s skills blossom during grades five through eight. Performers in major ensembles have the opportunity to develop their individual potential in voice or instrumental music. Students enrolled in minor courses will learn more about the value and power of music in our society from a non-performance perspective. Embarking on a musical journey, Middle School students will deepen their understanding of musical language through thoughtful listening and collaborative performance with peers.

In fifth grade, students are offered the opportunity to learn a woodwind, brass, or percussion instrument; they should choose Introduction to Band. For those students who continue playing a stringed instrument they have chosen in the earlier grades, String Orchestra 5 provides them the opportunity to work together in an ensemble class. Our Introduction to Chorus class offers young singers the chance to develop music reading skills and crucial fundamentals in a choral setting, while preparing repertoire designed to showcase their newly developed musical skills.

For our sixth graders, Band 6, String Orchestra 6 and Chorus 6 reinforce the fundamentals taught in Grade 5 with more emphasis on performance and ensemble.

Seventh- and eighth-grade musicians join together to form our major Middle School ensembles, the Concert Band, Orchestra, and Chorus. These ensembles meet five days per seven-day cycle. In these groups students apply the fundamental training and critical-listening skills developed in the fifth and sixth grade to create a mature, cohesive ensemble sound. Although fundamentals continue to be reinforced throughout all levels of performance at Hackley, these ensembles work primarily as performing groups, developing team pride, peer support, and ultimately an exciting and beautiful sound. These ensembles will give performances a minimum of two times per year.

Seventh- and eighth-graders who choose not to be in one of the major ensembles must elect to take one of our minor music courses. These courses are designed both to expand the range of students’ musical experiences and to help students become more discerning listeners.
FIFTH GRADE MUSIC CLASSES (select one):

945. Introduction to Band
Open to students who wish to learn to play flute, oboe, clarinet, bassoon, saxophone, horn, trumpet, trombone, baritone, tuba, or percussion, students enrolled in this class will develop expertise on their chosen instrument while learning the fundamentals of musical language. Students will receive group lessons three times per seven-day cycle and are expected to spend time reviewing their lessons at home. Additional private instruction is offered through the Hackley Music Institute after school or through referral to area music professionals.

955. Introduction to Chorus
Students in this class work on fundamental choral skills such as tone production, pitch matching, intonation and part singing through the study of time honored musical exercises and tailor made repertoire. Singers are introduced to the idea of musical independence, learning to expand the “inner ear” and generate musical ideas from within. Emphasis is placed on developing a strong sense of relative pitch. Much of the work is done a cappella (without accompaniment) to help singers gain confidence in their own newly acquired skills. Whenever possible, the chorus will meet as two groups, split by gender so that the teachers may tailor instruction to the students’ different voices.

965. String Orchestra 5
This course is open to any student who plays violin, viola, cello and string bass. Students learn the techniques of ensemble playing and proper rehearsal habits while reviewing the fundamentals of pitch and rhythm reading. Short works of major composers are performed. Private lessons are strongly encouraged.

SIXTH GRADE MUSIC CLASSES (select one):

946. Band 6
Open to students who play or would like to play flute, oboe, clarinet, bassoon, saxophone, horn, trumpet, trombone, baritone, tuba, or percussion, the ensemble will perform elementary band materials, transcriptions of major classical works, and popular tunes. Students learn techniques of ensemble playing and good rehearsal habits. Students are expected to practice their band music at home. Private lessons are strongly encouraged and may be scheduled through the Hackley Music Institute or with an area music professional.

956. Chorus 6
This course continues to develop choral skills, stage movement, diction and vocal technique while reinforcing and enhancing the fundamental musical skills acquired in fifth grade. Repertory is drawn from classical, folk and popular music. Curriculum also introduces some analysis of musical forms and styles and use of appropriate musical terminology. Whenever possible, the chorus will meet as two groups, split by gender so that the teachers may tailor instruction to the students’ different voices.
966. String Orchestra 6
A continuation of String Orchestra 5, this course is open to any student who plays violin, viola, cello and string bass. Ensemble skills and rehearsal techniques are enhanced and fundamentals are reinforced as students prepare more challenging repertoire to suit the grade level.

SEVENTH GRADE MUSIC CLASSES (select one):

PAMA-2. Concert Band (Major)
This course is open to seventh and eighth grade students who have received sufficient training on their chosen instrument (flute, oboe, clarinet, bassoon, saxophone, horn, trumpet, trombone, baritone, tuba, or percussion) through participation in instrumental programs in the fifth and sixth grade, or through equivalent experience at a previous school or with a private teacher. Students in this ensemble study works from the standard repertoire written for this age level while enhancing ensemble skills such as intonation, rhythmic accuracy, dynamics and tonal blend.

PAMA-7. Chorus 7-8 (Major)
This course is open to seventh and eighth grade students who have received sufficient choral or vocal training through participation in Introduction to Chorus, Chorus 6, or equivalent work at a previous school or with a private teacher. The five meeting times per seven-day cycle allows the opportunity for enhanced reading and ensemble skill development. Whenever possible, the chorus will meet as two groups, split by gender so that the teachers may tailor instruction to the students’ different voices.

PAMA-5. Orchestra 7-8 (Major)
This course is open to seventh and eighth grade students who have received sufficient training on their chosen instrument (violin, viola, cello or string bass) through participation in instrumental programs in the fifth and sixth grade, or equivalent experience at a previous school or with a private teacher. Students in this ensemble study works from the standard repertoire written for this age level while enhancing ensemble skills such as intonation, rhythmic accuracy, dynamics and blend.

MIN 7-9. All Things Musical (Minor)
This course offers a survey of musical genres and invites students to savor the universal appeal of music. After reviewing the elements of music, students will study a variety of historical styles and idioms, focusing on exemplary composers and performers who defined and transformed their musical worlds. They will consider ways in which music reflects and affirms cultural values, and they will learn about the use of music in therapeutic settings. Various composers in the Western classical music tradition will be considered, as well as major contributors to Jazz, Rock and Roll, Electronic Music, and students’ own cultural heritage.

MIN 7-10. Introduction to Musical Theater
This class explores the history and evolution of musical theatre in America. Students will learn about operettas, ballad operas, vaudeville, minstrel shows, and the emergence of what is now the traditional Broadway Show. Examples from the various time periods will be studied closely. Students will become familiar with the works of notable composers and lyricists, including Irving Berlin, Gilbert and Sullivan, Rogers and Hammerstein, Leonard Bernstein, Stephen Sondheim, Stephen Schwartz, and many others.

**EIGHTH GRADE MUSIC.CLASSES (select one):**

**PAMA-2. Concert Band (Major)**
This course is open to seventh and eighth grade students who have received sufficient training on their chosen instrument (flute, oboe, clarinet, bassoon, saxophone, horn, trumpet, trombone, baritone, tuba, or percussion) through participation in instrumental programs in the fifth and sixth grade, or through equivalent experience at a previous school or with a private teacher. Students in this ensemble study works from the standard repertoire written for this age level while enhancing ensemble skills such as intonation, rhythmic accuracy, dynamics and tonal blend.

**PAMA-7. Chorus 7-8 (Major)**
This course is open to seventh- and eighth-grade students who have received sufficient choral or vocal training through participation in Introduction to Chorus, Chorus 6, or through equivalent experience at a previous school or with a private teacher. Students in the choral major will develop their music-reading and ensemble singing skills. Whenever possible, the chorus will meet as two groups, split by gender so that the teachers may tailor instruction to the students’ different voices.

**PAMA-5. Orchestra 7-8 (Major)**
This course is open to seventh- and eighth-grade students who have received sufficient training on their chosen instrument (violin, viola, cello or string bass) through participation in instrumental programs in the fifth and sixth grade, or through equivalent experience at a previous school or with a private teacher. Students in this ensemble study works from the standard repertoire written for this age level while enhancing ensemble skills such as intonation, rhythmic accuracy, dynamics and blend.

**MIN 8-11. Introduction to Musical Theatre (Minor)**
This class explores the history and evolution of musical theatre in America. Students will learn about operettas, ballad operas, vaudeville, minstrel shows, and the emergence of what is now the traditional Broadway Show. Examples from the various time periods will be studied closely. Students will become familiar with the works of notable composers and lyricists, including Irving Berlin, Gilbert and Sullivan, Rogers and Hammerstein, Leonard Bernstein, Stephen Sondheim, Stephen Schwartz, and many others.

**PHYSICAL EDUCATION AND ATHLETICS**
Hackley’s academic tradition is matched by a strong athletic tradition. Sports contribute
significantly to individual development, commitment, pride, camaraderie and community while fostering hard work, fidelity and courage. In addition, sports offer a necessary release for a student’s natural exuberance while promoting physical fitness.

**995. Physical Education 5 / 996. Physical Education 6**
The Physical Education program for students in fifth and sixth grades provides developmental instruction in activities designed to foster the basic skills and strategies necessary for a lifetime of physical activity and wellness. The program’s focus is on the child’s physical, social, and emotional growth and well-being. Instruction is aimed at developing gross motor skills, directionality, object manipulation, coordination, spatial awareness, and lifetime fitness. The instructional environment emphasizes participation, cooperation, respect, leadership, sportsmanship, and teamwork.

**SCIENCE**
Students begin the study of science in the Middle School by examining topics with which they can have first-hand experiences, including life on their own planet, interactions with their local environment, and an understanding of the physical and biological world. Opportunities are provided that will engage their interest and stimulate them to ask questions about their surroundings. Specialized equipment and computer sensors are often used during laboratory work with an emphasis on building laboratory and observational skills. These skills, along with a strong introduction to science concepts, enable students to be prepared for more sophisticated concepts that they will face in higher-level courses.

**495. Science 5**
Students begin their middle school science coursework in the fifth grade with an introduction to the inhabitants of Hackley’s natural environment. Utilizing Hackley School’s rich outdoor environment of forests, wetlands, and fields, students will learn to identify and explore the natural history of some of the common members of both our flora and fauna. After a study of our local, natural world, students investigate astronomy, and finally an introduction into the world of physical science. Concepts relating to astronomy, forces, motion, and energy are developed through a variety of hands on experiments, demonstrations, and textbook readings. Real-world applications of these concepts are presented in order to encourage an understanding of how the content of the course relates to the students’ everyday lives. In between each topic students will participate in team-based STEM projects that improve their investigative skills.

Texts: Prentice Hall Science Explorer: *Astronomy*

**496. Science 6: The Physical World**
In this course, students will study the general nature of the Earth by examining the forces that shape it both at the surface and below. Beginning with the study of Geology, students will study rocks and mineralogy in depth. Followed by a study into Plate Tectonics, we will explore how dynamic forces deep within the Earth create tectonic activity. Later we will introduce the science of surface processes that shape the Earth and the major role of water. Finally, the course will culminate with the exploration of the water cycle, understanding water as a natural resource, and
examining our oceans. In addition, students will learn the nature of scientific inquiry by participating in the laboratory inquiries and activities throughout the year.

Texts: Prentice Hall Science Explorer, *Inside Earth*
Prentice Hall Science Explorer, *Earths Waters*

497. Science 7: Life Science

Biology is the study of life and living things, including their structure, function, growth, evolution, ecology, and taxonomy. This course emphasizes three key themes in life science: the connection between structure and function, the evolutionary relationships between living things, and the interdependence between organisms and on their environment within ecosystems. Concepts and content are explored through laboratory work, reading and writing assignments, collaborative research projects, computer applications, and classroom discussions. Hackley’s nature trails also provide an outdoor classroom and laboratory for active, hands-on investigations of local ecology. In the laboratory, students learn to work both cooperatively and autonomously, to use equipment properly and safely, to make observations carefully and thoroughly, and to reason scientifically.

Texts: Prentice Hall Science Explorer: *From Bacteria to Plants*

498. Science 8: Chemical Topics in Biological Systems

Science 8 is designed to build off of the skills acquired in Science 7. Science 8 provides an exploration of chemical and biochemical processes within the body. The course focuses on ways in which stored chemical energy and chemical compounds are used by humans to accomplish biological functions and the very important relationship between structure and function in biological systems. It begins with modern genetics, using a biochemical lens to look at cells, DNA and proteins. It then turns to the study of many of the major biological systems in the human body.

Texts: Prentice Hall Science Explorer, *Human Biology*

THEATRE ARTS

Theatre Arts offers Middle School students an opportunity to explore concepts of performance based upon character. Over the course of their experience in the Middle School, students are exposed to the craft of scene writing, character development, stage presence, blocking, and the behind-the-scenes technicalities that bring theatre to life.

Seventh and eighth grade students who elect to major in theatre arts should select Acting Intensive. Seventh and eighth grade students who minor in theatre arts should select All Things Theatrical.

915. Drama 5
Students will explore their own artistic potential using theater games and improvisational exercises that focus on ensemble building, storytelling, creative movement and voice, and the art of pantomime. Students will gain greater self-confidence along with a strong knowledge of and respect for the creative process. Additionally, students will learn how to discuss or critique their own work and that of their classmates in a respectful manner that seeks to improve everybody’s experience.

916. Drama 6
Using various structures and styles of improvisation, students will be introduced to the basic tenets of acting. Additionally, students will regularly engage in skit/scene creation and development. The course focuses on each actor’s individual progress and his or her ability to engage in the rehearsal and development process both individually and with others. Theater games and other ensemble building exercises will continue. Review of pantomime techniques will also occur to provide additional technique for scene building.

PAMA-8. Acting Intensive 7-8 (Major)
Acting Intensive is a class for students who enjoy the art of acting and want frequent opportunities to perform. To begin the course, students will learn the basics of truthful, realistic acting and character development by trying their hand at scenes, monologues and different projects. They will explore acting through improvisation and movement exercises, working individually and in collaborative and cooperative groups. Students will test the skills they learned in a public showcase of scenes and monologues during trimester one. The young performers will continue to hone their acting skills in trimester two, and in the third trimester, they will once again take the stage and perform in a play. All students will take an active role in the process, including rehearsal auditions, performance research, and production design. The students in this class will not only learn skills related to theatre, but also build practical skills for life: being a positive member of a team/ensemble, learning patience, acquiring active listening skills, and understanding the importance of being present in the moment. Students who register for the class should be prepared to participate in performances in trimesters one and three. Due to the outside time commitment required for this class to rehearse and perform in productions, eighth grade students who want to try out for Varsity teams in either the winter or spring season should not register for Acting Intensive.

MIN7-8/MIN8-10. All Things Theatrical (Minor)
This class will teach students everything they need to know about the theatre in order to appreciate a play or even write, star in, produce or direct one themselves one day! The fast-moving course will consist of approximately eight different units including improvisation, creative writing, monologues, scene study, design, and theatre production/technical theatre.

VISUAL ARTS
The Middle School art program offers students a rich artistic experience by cultivating visual and perceptual awareness, developing technical proficiency in a range of media and disciplines, and nurturing an appreciation and enjoyment of art and the creative process. As looking and seeing are at the core of any studio activity, students in the M.S. art program learn the value and
importance of careful and thoughtful observation as an essential part of the creative process. And as drawing is at the root of all art making, M.S. artists are encouraged to deepen their understanding of the formal drawing issues introduced to them in our Lower School program. Level appropriate projects and exercises reinforce these issues and allow students opportunities for personal interpretation, and to explore their own solutions to visual problems. Using an assortment of materials from pencil, pen, charcoal, and pastel, to paint and sculptural media, students will gain confidence in their ability to make creative decisions as they tackle both figurative and abstract challenges. Middle School artists will also further develop the critical thinking skills essential for real progress in the visual arts. Analyzing, critiquing, and discussing art, inside and outside the Middle School studio, are important elements of the curriculum. The history of art, both past and present, is linked to many of the projects in all four grades, so that students understand and appreciate the important role art has played in society through the ages. In seventh and eighth grades, students who elect to major in art shall participate in three different trimester-long offerings. “Explorations in Sculpture”, “The Illusion of Volume-Exploring the Methods of the Renaissance Masters”, “Digital Photography”, and “Drawing and Painting: Realism to Surrealism” are possible trimester offerings available to Middle School art majors.

875. Studio Art 5
The fifth grade art curriculum focuses initially on helping students transition from our Lower School program to the Middle School studio, and teaches our new Middle School artists appropriate studio behavior and practices. Fifth graders will become responsible for their own setup at the start of class and cleanup at the end of each class, and will be encouraged to work and focus in the studio as they would in any other classroom in the Middle School. The 5th grade curriculum strives to build on the interest and enthusiasm for art generated in our Lower School program, while reinforcing central concepts and fundamental techniques. Projects during the year are designed to develop drawing, design, and perceptual skills, as well as encourage creative thinking and growth.

876. Studio Art 6
The sixth grade art curriculum builds on the knowledge and skills learned in the fifth grade by presenting students with more challenging projects and visual problems, as well as greater freedom to solve them. Growing confidence and independence are fostered through expanded projects that emphasize the importance of careful observation and perceptual drawing. In the fifth grade, color theory is introduced, and craftsmanship is discussed as an essential component of the art making process.

MIN 7-6. Studio Art 7 (Minor)
The seventh grade art minor challenges students to create works with more sophisticated thinking and techniques. The course emphasizes the importance of thoughtful mark making as an essential descriptive tool, and instructs students how to convincingly create the illusion of three-dimensional form on the flat surface of a drawing page. Seventh graders will have the opportunity to experiment during the year with painting, printmaking and sculpture.
MIN 8-6. Studio Art 8 (Minor)
The eighth grade art minor engages students with a series of in-depth projects that emphasize the human figure as a subject. Students will approach the figure with a variety of exercises and projects ranging from faster, intuitive gesture sketches to more developed analytical drawings. Projects will continue to focus on learning how to represent the illusion of form and volume on the drawing page, and a more complex understanding of color theory will be addressed and encouraged. At the end of the year, students will have the tools, knowledge, and confidence to matriculate confidently into our Upper School Foundation Art program.

New Media Art: Computational Design and Craft (Major)
Young artists will have compelling and creative experiences in computation and making, as this class will be a combination of creative coding, graphic design, physical computing, digital fabrication, and handcraft. Students will explore aesthetics and personal expression through various media like computer animation, wood, plastic, fabric, paper, among others. Computational design supports high levels of precision and visual complexity. These exciting powers can be harnessed by young artists to create digital designs that they can then turn into physical things with the help of digital fabrication machines like the laser cutter, vinyl cutter, 3D printer, embroidery machine, and CNC machine. Depending on the projects designed, students will be introduced to programming in Processing, 2D design in Adobe Illustrator and Photoshop, and 3D design in Tinkercad and Beetleblocks. Students will learn about the work of early computational artists like Vera Molnár, Manfred Mohr, Georg Nees, and Waldemar Cordeiro, and conceptual artists like Agnes Denes, François Morellet, and Sol LeWitt, among others.

Explorations in Sculpture
Let your imagination flow. Students will experience the magic of throwing pottery forms on the electric wheel. In this course emphasis will be placed on gaining skill in craftsmanship and on learning to problem solve independently, as well as cooperatively. The fundamental principles of sculpture, such as composition, spatial design, use of texture, line, and color on form, will be investigated. Students will construct small and large scale architectural vessels and sculptures with extruded shapes and clay slabs. Each project will be inspired by artwork from a variety of cultures including: Native American, African, Chinese and Latin American. Students will learn to articulate their ideas in class critiques and discussions. Important drawing and design concepts will be integrated into each class project. During the course the following questions will be considered: Why should we study art? What is art and how does art and design affect our lives? Students will also look at a variety of careers that require artistic knowledge and skill, especially in the field of ceramics. A visiting artist will join the group for a day and discuss his/her work and career.

Drawing and Painting: Realism to Surrealism
The class introduces students to the concepts and techniques put forth by the surrealist artists of the early 20th century such as: André Breton, Leonora Carrington, Frida Kahlo, Dorothea Tanning, Salvador Dali and Max Ernst. A variety of observational and experimental approaches to drawing and painting will be presented, and the fundamentals of composition and design will be reinforced as each student produces their own surrealist-inspired painting from conception to finish.
The Illusion of Volume - Exploring the Methods of the Renaissance Masters
During the European Renaissance, artists made groundbreaking moves towards capturing the volume and depth of the real, three-dimensional world onto a two-dimensional surface. Students will learn a number of “classical” drawing techniques including tonal range and chiaroscuro. The class will study the paintings of masters of these techniques, namely the works of Caravaggio, Artemesia Gentileschi, Peter Paul Rubens and Vermeer. Students will work with a range of art materials including ink and charcoal, and will finish the trimester with an “Incognito Self-Portrait” in acrylic on canvas.

Digital Photography
This course is designed for those who are interested in learning how to design commercial printed materials such as book and CD covers, brochures, and movie posters. Throughout the course, students will learn how to prepare creative electronic files and use Adobe InDesign and Photoshop to express their ideas and concepts. A series of fun and practical projects will teach students the fundamentals of good design. Group critiques will allow students to discuss their work, explore new ideas, and monitor their own progress. A digital camera is recommended for this course.