Nueva Middle School

2019–2020

Contents

Grade 5

Design Thinking, Engineering, and Computer Science

Course Overview

The fifth-grade Design Thinking, Engineering, and Computer Science class challenges students to use the design thinking process to transform their ideas into solutions to problems. Through this integrated yearlong class, students will learn and practice skills in design thinking, engineering, and computer science. The primary fall project involves creating a tested, durable Pueblo dwelling toy for young students. Students will observe the younger children to identify needs and values, and use those needs and values to brainstorm, prototype, and build custom mechanical toys. At each step of the project, students will be challenged to improve their skills with new engineering concepts, new tools or components, and to further refine their design process as they build their static structures, moving elements, engaging accessories, and whatever else they need to create an atmosphere of fun. We will then focus more on computer science through a series of activities and projects. Students will continue to develop their resilience as they are exposed to different programming concepts, development environments, and the digital resources necessary to confidently assess and master an unfamiliar programming language. Students will use various programming environments to create projects that may include web page design and learning Javascript. For example, we may make a a class website showing a community garden connecting all of the *Seedfolks* book's characters as an integrated humanities project. Ultimately, students will create a program that extends the theme of their tree-house and uses a device to physically interact with their structure.

Course Goals

- Expand and develop confidence in design thinking skills, including need-finding, creative ideation, and iterative prototyping skills
- Acquire engineering concepts around strong joints, mechanisms, and constraining moving parts
- Develop proficiency with woodworking, TinkerCad, 3-D printing, and laser cutting
- Gain techniques for and reflect on managing time, materials, and team dynamics over a long, multistage project.
- Develop effective ways to solve computing problems
- Continue to develop programming skills, breaking down ideas into simple computer instructions, and debugging

- Develop resilience and an understanding that intermediate failure is an important, informative part of any complex, risk-taking project

Homework and Assignments
Most work will occur in the classroom; occasional homework assignments will help students further their learning and build resiliency and persistence.

Assessment
Students will reflect both on their process and product throughout the year, supported by feedback from users as well as self-reflections. Each unit will have a set of minimum specifications that students must meet to complete that unit. Students will be expected to demonstrate improvement from the skill level at which they entered the course. In this class, what students learn when they attempt to complete an exercise is more important than the outcome.

Math

Course Goals
- Develop knowledge in four content strands of mathematics: algebra and functions, geometry and measurement, statistics and probability, and numerical relationships and operations
- Develop skills in five process standards of mathematics: problem solving, reasoning and proof, communication, representations, and connections
- Explore mathematical concepts in ways that help students develop deep understanding of concepts
- Develop attitudes of confidence, curiosity, persistence, and inventiveness in relation to mathematics
- Improve students' abilities to solve problems of varying complexity, both independently and collaboratively

Class Norms across Fifth-Grade Classes
- **Appreciate and acknowledge different ways of being good at math.** Making connections to other subjects or math ideas, thinking deeply about one thing for a while, seeing math in pictures and diagrams, enjoying computations, and describing your math thinking clearly are all different ways of being good at math.
- **Be respectful of oneself and others**. This includes comments made to oneself and others and giving each other the time to have insights (or "Aha!" moments.)
- **Be curious.** Students are encouraged to ask their own mathematical questions, including "I wonder what would happen if…"

- **Seek appropriate challenge.** We value productive struggle in mathematics. If your child thinks something is too easy or feels finished, they should create a related problem that is more challenging for them or dive deeper into why the math works the way it does.
- **Develop academic habits.** This includes coming to class on time with all materials and using class time wisely. Students should email their teacher before an absence (if planned) and check the homework blog to stay on top of the work.
- **Be proactive about learning.** This includes reflecting on work and creating learning goals. Students should also reach out to their teacher to meet at lunch or after school should they have a question about class material.
- **Be willing to work together.** Students will often work in groups during math class and will learn collaborative habits to help them work with all peers productively.

Materials

Materials to bring to class every day:

- math folder
- math journal
- pencils with erasers
- water bottle

Homework

Homework serves a variety of purposes, such as practicing skills, reflecting on newly learned concepts, extending ideas from class work, introducing or previewing new concepts, and working on long-term assignments and projects. We view homework as an opportunity to explore ideas and take risks, and thus do not expect perfection. We encourage students to make every effort to do their own work before they seek help from others.

Homework will generally be assigned at the beginning of the week and due at the end of the week. Over the course of the week, students should spend **one hour total** on their homework. For example, this may be 30-minute blocks over two nights or 20 minutes on each of three nights. **If students do not finish a weekly assignment in approximately one hour, they may stop working on it**. We, as teachers, consider this assignment complete as it will allow students to participate in discussions and ask questions. Larger projects will take longer (maybe much longer) than one hour, but they will not be due the next day. Weekly homework will be a mix of:

- **Practice Problems:** Familiar problems to make sure students understand ideas from class
- **Pushing Problems:** Unfamiliar problems (problems that are different from what we did in class) to encourage deeper insights into problems from class and to develop new ideas

- **Review problems:** These problems refresh on material from earlier in the year .
- **Pondering Problems**: These might be problems that seem unrelated to the current topic, where students will see a connection later in the year
- **Personal Problems**: An opportunity for students to create their own problems and ask original questions

Getting Help

Students are encouraged to form study groups whenever possible and to discuss math across grade levels in advisory or outside of class. Extra help is available from any math teacher by prior arrangement before school, at lunch, or after school. In addition, a drop-in math lab will be available on Wednesdays and Fridays after school in J209/J210 for any students wanting homework help or math extensions. Please encourage your child to contact their teacher by email **as soon as they have a question**, so that they do not risk falling behind on class content.

Flexible Groupings and Assessment

Teachers will begin the year co-teaching with the movable wall open to solve an open-ended task together. Starting the year together will help all students get to know all the fifth grade math teachers, as they began to do during our step-up day in June. Further, all teachers will be able to observe and work with all students in this problem-solving, community-building, and high-ceiling task.

The remainder of the year is divided into content-based units grounded in the mathematical habits as part of our spiraled math curriculum (statistics, fractions, ratios and proportions, and geometry). At the start of each of these units, students will spend one day in class pre-assessing on content knowledge for that particular topic. Teachers will use the results of these low-stakes pre-assessments to create an individual action plan for each student related to that topic. This will be shared with students and parents. For the remainder of the unit, students will work within 2-3 differentiated, teacher-led cohorts on specific content to meet the learning objectives outlined in their personalized action plan. Groupings will be made based on student learning styles, prior knowledge of content, and recent work in class. Students will remain with this cohort and a single teacher for the whole unit. This model does provide flexible groupings such that a student in Molly's cohort could move next door to work with Lissie's cohort for a day or more, if necessary for additional practice or extension. Students will have the opportunity to assess at the end of each unit and reassess throughout the year as a way to demonstrate and reflect on their growth for each unit.

Consistent with our current model of project-based, interdisciplinary learning, units will also culminate in a project and feedback will be shared in a rubric. Students are expected to take responsibility for their own learning and to participate fully in the assessment process. At the end of each semester, students

will be expected to complete a self-evaluation addressing academic habits, mathematical habits of mind, mathematical skills.

MATHEMATICAL HABITS OF MIND	DATA AND STATISTICS	FRACTIONS
Investigate strategies for solving unfamiliar problems, such as: • pattern sniff • describe • organize and simplify • experiment, guess, and conjecture • visualize and abstract • contextualize and reflect • persevere	Investigate ways to create survey questions, collect and analyze data, and represent findings using: • central tendencies — mean, median, mode • measures of variance • traditional and nontraditional statistical graphs • Google sheets technology • how to tell different stories using statistics • comparisons between data sets "Dear Data" project Social justice collaboration with humanities	Investigate procedures and concepts involving operations on fractions and mixed numbers • addition, subtraction, multiplication, and division of fractions • comparing fractions • investigate the relationships between fractions, decimals, and percentages • advanced conceptualizations of fraction operations
RATIO, PROPORTION, SCALE	**GEOMETRY**	**INVENT YOUR OWN**
Investigate uses of ratio including: • scaling for different situations • unit rates and best buys • maintaining proportions • graphical representation of proportions "If You Hopped Like a Frog" project	Investigate area and perimeter for regular and irregular 2-D shapes: • pentominoes • triangle areas • area of a trapezoid • Pick's theorem Investigate surface area and volume for 3-D shapes, including	Investigate the components of a problem space such as: • axioms • assumptions • parameters • context "Invent Your Own" project

Art

Course Goals

Fifth-grade art is a balance of exploration, play, and technical problem solving. Students are encouraged to work individually as well as cooperatively, to be bold, and to try new methods and approaches. We will continue to practice and develop our studio habits and skills from past years.

Ongoing collaboration with other subjects will be furthered. Students will create visual works to support themes in humanities, writing, math, science, social justice, SEL, and more.

Course Overview

We will begin the year by using masking tape as a drawing and sculptural material, considering new ways of designing, and making art that is both inventive and temporal.

As we work with principles of design — such as unity, rhythm, balance, and proportion — we will continue to build our visual art vocabulary, confidence, sense of humor, and critical thinking as artists. We will keep a sketch book throughout the year to generate ideas and seeds of future projects. Art class will include 2–D and 3–D projects, playing back and forth, and challenging how we use everyday materials and traditional ones. Our work will be thematic, and our projects multifaceted.

We will explore drawing, design, painting, sculpture, collage, print-making, and installation art. Other material use may include paper, cardboard, plaster, wire, canvas, and fabric.

Connections will be made to art history and contemporary art. We will look at contemporary artists, such as Claudio Bravo, Sheila Hicks, Arlene Shechet, Jessica Stockholder, Mark Bradford, and Lawrence Weiner. We also look forward to continuing some of our traditional Nueva projects, such as repainting our stools in the art room and clay heads.

Our art studio will start in our lovely lower school art room and go beyond. The Nueva campus invites us to go out of the studio and into the world.

Wednesday at lunchtime is an open studio and students may opt in to various art-based academies. We will have a spring art show and ongoing displays of our work throughout the school year. Come and visit us any time!

Music

Course Goals

The music program in Nueva is inspired by the philosophies, practices, and teaching approaches of Kodály and Orff, focusing on active music-making and music literacy skills. Music in fifth grade continues to build on music skills through singing, movement, and playing of instruments including recorders (soprano, alto, and tenor), ukulele, and (Orff) pitched and unpitched percussion instruments in the classroom. Students will continue to study and practice music concepts such as rhythm, melody, meter, form, expression, harmony, and chord progressions as they gain skills in playing instruments and singing. They will have

opportunities to play, perform, and create arrangements or compositions in class. Performances at the end of each semester will include choral and instrumental work practiced in class.

Course Overview

Continued study and practice of the following musical concepts will be tied in with the course topics.

- Pitch, rhythm, tempo, meter, articulation dynamics, expressive techniques, form, structure, and chord progressions
- Timbre and instrument recognition
- Ensemble performance skills

SEL

Course Goals

SEL helps fifth-grade students:

- Become more aware of personal choices that promote self-confidence and emotional intelligence
- Gain insight into skills that promote cooperation and teamwork
- Develop leadership, empathy, positive communication, and conflict-resolution and problem-solving skills
- Build community, enhance group trust, and increase respect and acceptance for differences between self and others

Course Overview

Fifth-grade students meet weekly for SEL. Teaching methods promote experiential learning and include group work, discussion, writing, improvisation, role play, and visual arts — catalysts for the skills of emotional and social intelligence.

Our curriculum this year involves a wide range of activities, including:

Open Session Discussions Fifth graders will participate in a series of Open Session discussions, a hallmark of the Nueva SEL program for Middle School students. Using student-generated social and emotional issues such as personal decisions, real-life friendship struggles, and normal stresses of growing up and gaining responsibility, students learn to apply their listening skills to clarify their classmate's issues, offer support and encouragement, and provide practical advice and solutions. This activity also deepens trust and problem-solving skills.

Cooperative Activities Cooperative group challenge activities promote team-building and provide a chance for students to reflect on and receive feedback about their individual leadership styles and contributions and the roles that they

play in the dynamics of a group. Discussions connecting these experiences to other parts of their lives (classroom, friendship, activities outside of school) provide opportunities for self-reflection and learning.

Mindfulness Techniques Students learn and practice a variety of mindfulness techniques, using breath, body awareness, and movement to enhance focus and concentration. Guided imagery and visualization are reviewed, and new techniques are taught to promote improved self-awareness, self-management, and health and wellness. We also teach about current brain research connecting meditation and mindfulness to physical and emotional health.

Identity and Self-Awareness Fifth graders explore the questions, "Who am I?" and "Who do I want to be?" from multiple angles, using art, story, games, and self-reflection. By creating individual and class projects together using collage and mixed media, students also explore issues related to identity and developing a sense of self. They set goals, come up with solutions, and find ways to support each other and themselves to meet these personal goals.

Media Literacy The fifth-grade SEL curriculum will include an ongoing series of classes dedicated to media literacy, digital citizenship, online behavior, and online safety. The program integrates with the fifth-grade technology classes, supporting students in preparation for the One-to-One Laptop program in sixth grade.

Health, Nutrition, and Puberty Education Three class periods in the spring cover health and nutrition for the growing body. Four class periods in the spring focus on the body and puberty education. We plan to have same-gender groupings for puberty education. The nutrition and puberty education series will be presented by expert guest educators. A parent meeting is also scheduled before the nutrition and puberty education series so that parents can preview the topics being discussed and offer feedback in making this a positive learning experience for their child.

Homework and Assignments

There are occasional homework assignments in SEL. Homework is designed to be a set of enjoyable activities to provide practice with SEL skills. Students can expect assignments to include reflective thinking and/or writing, interviewing an adult, and/or observation and research. Typically, students are given time in class to complete their work, and if they need more time to finish the work they may take it home and send it to me at an agreed-upon time.

Assessment

The most essential factor for SEL assessment is each student's level of class participation and personal reflection. Students will also be evaluated on behavior and focus, respect for the other students and the curriculum, and individual effort and follow-through on completing in-class activities, class assignments, and individual projects. Assessment includes how SEL skills are

practiced and applied within the Nueva community and outside the classroom — during recess and lunch, for example.

Structured Word Inquiry

Course Goals

- Introduce the practices of scientific word investigations, including understanding the morphology and phonology of words
- Explore vocabulary in the context of writing genres
- Hone specific word choice in written work
- Make connections among words to build a larger vocabulary
- Investigate the concepts of denotation and connotation

Course Overview

In SWI, the fifth graders explore language by investigating the meaning, structure, etymology, and relationships among words. They engage in scientific inquiry about words, positing hypotheses and using research to test those hypotheses. Students make extensive use of online research tools, such as etymonline.com, dictionaries (such as the Oxford English Dictionary), and websites that show relationships among words. Students build on their knowledge of vocabulary, noting commonalities between word bases, exploring loan words, and considering the history of words. Through this research, students enrich their writing with a larger, more precise vocabulary.

We will meet monthly in the first semester and bimonthly in the second semester.

Homework

There is no homework assigned in this class, but students will work on projects during class time and SWI as incorporated into the writing curriculum.

Assessment

Students will be assessed through teacher observation and through written classwork. Assessment will overlap with the writing classes.

Science

Course Goals

The fifth-grade science course aims to empower students as scientists and planetary stewards. Every effort will be made to allow students to pursue their

own curiosity within the curriculum. In all the integrated content units, students will develop transferable science skills they will refine throughout Middle School:

- Asking scientific questions
- Developing & using models
- Planning & carrying out investigations
- Analyzing data
- Constructing explanations
- Engaging in argument from evidence
- Evaluating science
- Communicating science

Course Overview

Sense of Place is the overall theme this year, as students will be exploring their place in Earth's geologic history, the Tree of Life, and both local and global ecosystems. Hands-on investigations and creative projects are central to the course design. Geology, biology, ecology, and environmental science topics will be investigated in integrated units. Students will also apply their science learning during field experiences on campus throughout the year, at Fitzgerald Marine Preserve in February and on the Crow Canyon expedition in May.

Assignments and Homework

Science notebooks and binders will be kept in the classroom and Google Classroom will be utilized for digital work. Weekly homework, when assigned, will be posted on the homework blog and should take about 30–60 minutes to complete. Some larger projects will require work at home, but deadlines will be staggered over an extended period of time.

Assessment

Students will be assessed on science content knowledge and skills; feedback will also be provided on student habits of mind. In each unit, students gain practice through multiple formative assessments. Students will be formally assessed for their evaluations through major assignments, labs, projects, and reflections that will be announced in advance with a rubric or checklist provided.

Writing

Course Goals

The fifth-grade writing program has several goals:

- Write in response to literature
- Practice writing in a variety of genres
- Integrate a rich, varied vocabulary into writing pieces

- Continue to develop editing and revision skills
- Develop effective strategies for starting to write
- Write regularly and deliberately
- Accept feedback and integrate feedback into drafts

Course Overview

The fifth-grade writing program stems from the grade-wide theme of movement: social movements, the movement of people, and the movement of the earth. The literature for the class ranges from personal narratives to fiction, poetry, and nonfiction articles.

The first semester begins with discussions and writing around the book *I Am Malala*, by Malala Yousafzai, the summer reading book. We'll also read *Seedfolks*, by Paul Fleischman, and delve into poetry. Students will write daily, and there are culminating writing pieces for each of the units.

In the second semester, students explore the ecology of the Bay Area, studying flora and fauna of Nueva and the surrounding areas. Students will develop characters as part of a short story unit and explore the role of conflict and setting. We'll read *How I Became a Ghost*, by Tim Tingle, as we focus on the history and culture of the Choctaw people. For the final unit, the students investigate the history of Native American tribes in preparation for the week-long trip to Crow Canyon in May.

The course focuses on the development of writing skills across genres, as well as the development of the writer's voice. Students practice grammar and vocabulary in the context of the writing pieces themselves. Managing time effectively, breaking projects into manageable chunks, writing for extended periods of time, and improving the flow and organization of writing pieces are key goals for this class.

Homework and Assignments

Homework is a key element for success in this class. Homework time should not exceed 30 minutes per night. Homework is not given on weekends, but students may choose to complete assignments over the weekend if that fits their schedule better. Homework for the week is handed out at the week's first class meeting and assignments with due dates are posted on the homework blog and Google Classroom on the day the class meets. Writing homework may include completing writing begun during class, reading texts, writing responses to the literature, and doing "20-minute-power-writes."

Assessment

Students are assessed on their writing pieces, classroom participation, focus, study skills/organization, time management, appropriate laptop use, self-advocacy, resilience, and effort. Students receive informal verbal feedback during in-class writing sessions, as well as written feedback on their writing pieces. Writing

mechanics practice and class discussions will be a part of class as well. Each writing assignment has a rubric so that students can clearly understand the expectations for each assignment and receive clear written feedback on the key aspects of each assignment.

Calendar

September	*I Am Malala*
October/ November	*Seedfolks*
November/December	Poetry/short stories
January	Ecology of the Bay Area
February	Ecology of the Bay Area
March	Short stories/*When I Became a Ghost*
April	Native American research and writing
May/June	Reflections on Crow Canyon

Humanities

Course Goals

Students in fifth grade will:

- Read, gather information from, and analyze texts of various genres and formats (e.g., essays, articles, poetry, fiction, photographs, maps, timelines)
- Respond factually, analytically, and creatively to materials and concepts
- Generate relevant and complex questions for inquiry
- Find and use multiple resources to support conclusions
- Use the writing process to develop well-organized, well-supported, and even persuasive pieces
- See topics and issues from multiple perspectives
- Make comparisons and draw conclusions about cultures across time and region

Course Overview

In the fall, the fifth grade will embark on the research and writing process while analyzing themes of individuality, community, and culture through a lens of *movement*. Beginning with our summer reading of *I Am Malala*, we will discuss notions of identity and society as seen in Malala Yousafzai's autobiography, as well as several pieces on current events.

As we consider how our individual identities make up the communities in which we live, students will have the opportunity to express how the physical movements we make hold cultural significance. While synthesizing a number of resources, we will also consider the cultures (and cultural movements) of Japan,

Spain, and China, as fifth grade begins to consider the languages they may study in Middle School, as well as the multitude of cultures with which we identify.

We will then examine how communities and cultures change, and with the help of our social justice coordinator, Alegria Barclay, we will research historical and current social movements. With the powerful words and art of past movements as inspiration, students will create their own artwork to accompany original speeches that focus on social justice issues of their choosing.

Looking to where our cultures and societies came from, we will then begin our study of the earliest people in North America. Peering through the lens of archeology, we will explore local civilizations and those of the Southwest from centuries and millennia ago while investigating how geography and geology help shape culture, as well as the ethical considerations researchers must take into account. We will spend time focusing our study on Chaco Canyon, a complex society that was located in what is now New Mexico. This study of native cultures will help prepare fifth graders for our culminating Southwest trip to Crow Canyon Archeological Center in Cortez, Colorado, where we will interact with the remains of the incredible civilization that arose in the Mesa Verde region during the same period as Chaco Canyon.

Homework and Assignments

Students in fifth-grade humanities can expect homework assignments about once a week and should plan to spend approximately forty minutes on most homework assignments. Some assignments (such as topical readings and reflections on current events) will be given nightly as they will be related to our work in class and will facilitate enriched conversations. However, most of our work centers on projects that will allow students some flexibility in scheduling their homework time.

All homework assignments will be discussed in class and posted on the homework blog. The blog will be updated by 4:00 pm every day.

Assessment

General areas of assessment include:

- Expression of ideas in written pieces, discussion, and creative projects
- Proper usage of newly learned skills (i.e., persuasive writing techniques and rhetorical devices for speechwriting and presenting)
- Organization of materials, timeliness, and following class agreements
- Effort in all areas

Students will receive informal feedback during one-on-one conferences in class and more formal feedback in response to written pieces and projects. Students will also assess their own work through reflection and self-assessment tools. Parents will receive formal assessments twice a year as well as periodic feedback throughout the semester.

Grade 6

Humanities

Course Goals

This year in sixth-grade humanities, our objective will be to review and gain an understanding of American history and the American experience. Moving from early colonization to the 21st century and world leadership, we will look through a wide lens and move forward in time as we focus on trends, trendsetters, and events that molded our country.

Course Overview

We will begin with a study of early colonization, focusing on the various reasons why colonization developed; individuals who helped organize and build the various colonies; the religious, cultural, economic, and political differences that set the colonies apart; and what eventually brought the colonies together. We will also examine the Salem witch trials for a quick study on religion, society, and the human condition as we analyze the events that took place, using critical thinking as we question Why? We will review the role of some of the Founding Fathers and Mothers during those early years, as well as others, some of whom are historical icons and some relatively unknown, each contributing something of value to our country's foundation.

We will move forward and discuss how the growth of the country also led to the growth of independence from England, highlighting the abuses suffered by the colonists in terms of oppressive acts and externally imposed controls, which led to acts of revolt and revolution, including the creation of the Declaration of Independence. The students will then have an opportunity to create their own version of the Declaration, based upon a request for freedom from a chosen topic. There were verbal and written battles over the creation of the Constitution, so we will focus on Federalist/Anti-Federalist activities through debate, and review the creation of the Bill of Rights. We will compare the original Bill of Rights with modern applications and interpretations of those rights, including court case examples for open discussion in class as we see how they affect civil rights, diversity, and social justice for all Americans.

We will move thereafter to an examination of the physical and economic growth of the country, and the development/differentiation of the North and South in terms of economy and culture. We will discuss slavery in depth, examining its growth and involvement in the division between the North and South. An overview of the Civil War will follow, with some focus on major battles,

but also on the roles of women during the war period, camp life as a soldier, and the war's conclusion. We will also examine Lincoln's role as a major influence upon the country during his terms as president. Reconstruction follows, as does the growth of the nation, internally and abroad, leading us into the Gilded Age as we study the heroes and anti-heroes of the time — including those known as robber barons or captains of industry, as well as those known as muckrakers. Once again, unbridled growth leads us into the role the United States played during World War I and its aftermath.

Once war ends, we grow as a country again; we suffer through the Great Depression and the Dust Bowl, and the class will examine the roles of children in keeping their families afloat. The 1940s see World War II, the Holocaust and the Cold War that followed. As we move into the 1950s, we see social and educational change, McCarthyism, and civil rights legislation and court rulings. As the 1960s unfold, we witness the early stages of the Viet Nam war, political strife, including assassinations of prominent leaders, and the cultural revolution highlighted by Woodstock and the decade of protest music. We see the 1970s and the changes in our country, bringing us to the present.

Another topic — which does not necessarily follow the chronology of the American experience but is still important to understand — will encompass several weeks of concurrent study. The students of the sixth grade will, as groups, have an opportunity to create their own legislative bills, using interactive materials and culminating with actual voting as is done in Congress. The students will gain an understanding of the lobbying process and how bills are actually made into laws.

The year will conclude with our annual trip to Washington, DC, in May, with side trips to such places as the Gettysburg battlefield, so students can see firsthand the historical sites that they have studied.

During the course of the year, we will utilize various resources. Of course, the computer will be instrumental in everyday activities, as we perform historical research, writing, and note-taking and view videos of historical events and speeches. We also have an extensive library of books covering all major course materials. Topical current events will be introduced, there will be some lectures, we'll use debates, and we'll play "history games."

There will be homework ranging from reading and analyzing selected historical works — either as handouts or from research — to writing papers such as news reports of events as they happen, creative fiction, and poetry. We will take "deep dives" into historical fact, and examine how bias and culture has influenced our reading of history. There will also be group projects that may involve communication among students outside of school as well as during class, leading to group presentations or debates, such as a debate between the North and the South prior to the Civil War. Most homework, other than long-term projects, will usually be due in a couple of days. We will advise the students

of the time we expect to be spent on these projects, with the hope that over time, their time management and research skills will improve. Additionally, the written assignments will be given in collaboration with the sixth-grade writing teachers, so as not to overload the students with duplicative or overreaching writing.

Assessment
In the study of history, recall is something that many teachers find important. We find that understanding the historical meaning of events is at least as important, if not more so, so our focus will be not so much on the memorization of dates or minute details of events, but on understanding why things occurred as they did, what they meant to the country, and how they affected the citizens. We will look at total class participation, writing assignments, proper source credits, bibliographies, and historical accuracy. We will peer critique individual oral presentations in class, and look at how the students work together in group projects, how they prepare for class discussions, and their overall classroom decorum.

Overall Goals
We feel that understanding history is understanding life itself, that history is always around us, and that today's current events are tomorrow's history. Our students will grow with these understandings and use this knowledge forever. We also know and appreciate the importance of being able to express oneself in class, in peer groups, and eventually in the marketplace. To that end, we place emphasis on public speaking skills throughout the school year, utilizing such methods as individual oral presentations, debates, and town hall–style meetings.

Japanese I

Course Goals
Welcome to Nueva's Japanese program! Students begin their three-year journey into the language and culture in sixth grade, culminating in an exciting exchange program with Japan in eighth grade! In hopes of creating lifelong learners of global citizenship, we learn Japanese through cultural exploration and practice, hands-on experiences, and discussions. The goals of sixth-grade Japanese include becoming a passionate learner with a solid foundation of language and gaining a better understanding of Japanese and our own cultures.

Course Overview
In the first semester, students are introduced to basic language and culture, as well as the study habits necessary to learn a language. While learning basic self-

introductions, greetings, and related customs, students begin studying the first writing system, called Hiragana. Once we have a firm grasp of these 46 Hiragana and simple structures of the language, we dive in to learn Katakana, the second writing system of Japanese. Throughout the second semester, we expand vocabulary and daily expressions, and introduce more grammar to encourage various forms of communication. Students learn to describe themselves and families. The second semester is also when students embark on a cross-curricular project called the Sustainable Living Project. Japanese, art, science, math, and more work in concert to produce a culminating project that includes a properly scaled model of an energy-efficient dwelling for a real Japanese family. Through language class, it is impressive to watch the sixth graders produce and present a descriptive brochure written entirely in Japanese.

Homework
Homework is assigned regularly, particularly in the form of individual studying. Homework also takes the form of writing practice, brainstorming, reading exercises, and so on. As language courses only meet three days a week, these assignments, and consistent studying outside of class, are very important for successful language acquisition.

Assessment
While the styles of assessment vary, students are formally and informally evaluated on their language acquisition progress, cultural awareness and knowledge, classwork ethic, preparedness, and so on.

Calendar
Japanese class meets three days a week for seventy-five minutes each class; this Japanese class meets Fridays mostly in the 1st and 3rd weeks of each month. In the first semester, there will be a Modern Language field trip for all sixth-grade Japanese, Mandarin, and Spanish students. The Japanese language students go to an authentic Japanese supermarket in San Mateo, using language skills to read food items and experience food culture. We also explore the nearby Japanese garden in Central Park, San Mateo, where students explore Japanese aesthetics of beauty and nature. From April to May, all language students begin the cross-curricular project called the Sustainable Living Project. Their final products and presentations are shared at culmination night in late May. All families are encouraged to attend the sixth-grade culmination night.

Mandarin I

Course Goals

nǐ hǎo 你好！ Welcome to Nueva's Mandarin program. Sixth-grade Mandarin class provides students with a thorough, in-depth introduction and foundation in all aspects of Chinese language and culture, with a focus on cultivating intrinsic motivation, engagement, personalized language-learning skills, and habits of mind. By the end of the year, students will be able to have simple conversations on a variety of topics about themselves and their immediate environment, and they will be prepared for further Mandarin with a solid foundation, learning habits, and confidence.

Course Overview

We start the year with three fun, engaging introductory units on pinyin (phonological system), characters (writing system), and culture. Each unit culminates in a personalized showcase project. To get ready for the language field trip in the fall semester, students learn vocabulary and have conversations on food and drinks. In the field trip to the Ranch 99 Chinese market, students will use their Mandarin skills to complete a fun scavenger hunt and order food and drinks.

With the knowledge and foundation from the introduction units, we start the first project-based thematic unit — *Family Photo*. In this unit, students learn how to introduce themselves and their families and ask/answer simple questions. The fall semester ends with an interactive presentation of learning.

In the spring semester, students expand their learning from talking about themselves to the world with a three-layer map project. They learn how to talk about countries and cities they have visited, have not visited, or wish to visit, with supporting explanations. They also learn the geography, climate, weather, food, and famous sites in different Chinese provinces and cities. This is to help them get ready for the interdisciplinary sixth-grade sustainable-living culmination, in which they create a bilingual brochure and presentation to introduce their house and location.

Foundational information concerning geography, history, and culturally appropriate manners and expressions will be introduced and reiterated in all the units.

Homework and Assignments

- Students are expected to spend 5–10 minutes of vocabulary review on Quizlet daily
- Students are expected to spend 20 minutes after each class on specific assignment or working on their projects/presentations

Assessment

- Weekly short vocabulary quiz
- Unit test at the end of a thematic unit (usually around three weeks)
- Presentation of learning after major projects
- Self-assessments
- One-on-one progress checks and oral tests

Calendar

- Field trip: Ranch 99 in Foster City
- Mid-Autumn Festival on September 13 and class celebration that week
- Spring Festival on January 25 and special celebration that week
- Chinese exchange students visit January 10–16

Accelerated Mandarin 1

Course Overview

We are offering two levels of Mandarin in sixth grade. Nueva's new Accelerated Mandarin class for sixth graders will build on students' prior knowledge and experience with the language. Aimed at heritage speakers, students who have transferred from immersion programs, and students who have attended extended outside classes, this language course will start at a seventh- or eighth-grade level, depending on the needs of the class, and deepen the four primary language skills: listening, speaking, reading, and writing. A project-based learning approach will be used to differentiate and support student needs. Students will continue to participate in landmark integrated projects of their grade level (the sustainable living project, for example), but will move at a pace and depth appropriate to their skill. Through each thematic unit — starting from self, family, and school, expanding to community and world — students will learn pinyin, reading, writing, and typing in simplified characters, and will progress in parallel with oral skill development. Foundational information concerning geography, history, and culturally appropriate manners and expressions will be introduced and reiterated in all the units. We will create a fun, engaging Mandarin learning environment. The class will be carefully aligned to the upper school curriculum with age-appropriate interactive activities and projects.

Course Goals

- Develop a deeper understanding of the philosophies, strategies, and habits of learning a second language.
- Lay a solid foundation for further study with an all-around development of Mandarin
- Gain the systematic knowledge of pinyin, rules of characters, and typing

- Learn to create conversation, present after each lesson, and talk about some life-related topics with native speakers
- Understand teacher's instructions and questions and respond properly
- Develop an understanding of the culture and history by participating in creative activities and holiday celebrations

Homework and Assignments

- Students are expected to spend 5–10 minutes of vocabulary review on Quizlet daily
- Students are expected to spend 20 minutes after each class on specific assignment or working on their projects/presentations

Assessment

- Class participation and self-assessments
- One-on-one progress checks
- Vocabulary quizzes
- Unit tests (interpersonal, presentational, and interpretive)
- Presentation of learning after major projects

Calendar

- Mid-Autumn Festival on September 13 and class celebration that week
- Field trip: Ranch 99 in Foster City
- Chinese exchange students visit January 10–16 (tentative)
- Spring Festival on January 25 and special celebration that week

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Spanish I

Course Goals

¡Bienvenidos! Our journey begins with Spanish language and culture in the many Spanish-speaking communities near and far. We will learn best approaches to language acquisition and mastery. The exposure to new values, ideas, customs, and traditions will lead naturally to an appreciation for and excitement about Spanish. Class meets three times a week, moving toward the ACTFL recommendation of 90% comprehensible target language.

Course Overview

Students will build a foundation of basic conversation, with oral and written interactions providing them with tools to increase their vocabulary and grammar. Daily interpersonal, interpretive, and presentational oral and written activities will enable students to comprehend at ACTFL Novice by the end of sixth grade. Students will use basic structural patterns in the present and present progressive. We will study alphabet, numbers, colors, days of the week, months,

seasons, the weather, greetings, and likes/dislikes; regular verbs and some irregular verbs like “ser,” “estar,” and “tener”; basic geographic, family, and house vocabulary, hobbies, food; and basic adjectives and adverbs, some food vocabulary, and the telling of time.

Culture of the many communities that speak Spanish will be woven throughout classroom discussions. Specifically, students will take a closer look at customs of Spanish speakers, geography, food, and holidays, allowing aesthetic and hands-on experiences of the cultures. The course of study includes a brief overview of Spanish-speaking countries, their geographical locations and their people, culminating in student-developed interdisciplinary work as part of their year-end Sustainable Living Projects. Other projects may include the sharing of recipes and food, artwork, recordings, movies, and a web site.

Homework

Each week, students will receive a list of homework assignments that they will turn in the following weeks. The expectation is that they spend 20-30 minutes per class meeting on the activities in the assignment collection. These will include practice with assigned vocabulary, grammar, reading, writing, and pronunciation, with remedial support and optional challenge work. Individual feedback is provided in return of homework, and daily class-time feedback is provided for individual and group corrections and support. Teachers may also provide individual or small-group feedback as needed during lunch recess or before or after school.

Assessment

Written quizzes and oral interviews will enable students to monitor their vocabulary retention, grammar progress, and language learning success. Students will also be assessed based on their class participation, preparation, progress with content, study habits, and projects.

Field trip

Students will have one language-specific field trip in the fall semester where they will practice speaking, reading, and writing in Spanish.

Math

Course Goals

- Develop knowledge in four content strands of mathematics: algebra and functions, geometry and measurement, statistics and probability, and numerical relationships and operations

- Develop skills in five process standards of mathematics: problem solving, reasoning and proof, communication, representations, and connections
- Explore mathematical concepts in ways that help students develop deep understanding of concepts
- Develop attitudes of confidence, curiosity, persistence, and inventiveness in relation to mathematics
- Improve students' abilities to solve problems of varying complexity, both independently and collaboratively

Class Norms across Sixth-Grade Classes

- **Appreciate and acknowledge different ways of being good at math.** Making connections to other subjects or math ideas, thinking deeply about one thing for a while, seeing math in pictures and diagrams, enjoying computations, and clearly describing math thinking are all different ways of being good at math.
- **Be respectful to oneself and others**. This includes comments made to oneself and others and giving each other the time to have insights (or "Aha! moments.")
- **Be curious.** Students are encouraged to ask their own mathematical questions, including "I wonder what would happen if…"
- **Seek appropriate challenge.** We value productive struggle in mathematics. If your child thinks something is too easy or feels finished, they should create a related problem that is more challenging for them or dive deeper into why the math works the way it does.
- **Develop academic habits.** This includes coming to class on time with all materials and using class time wisely. Students should email their teacher before an absence (if planned) and check the homework blog to stay on top of their work.
- **Be proactive about learning.** This includes reflecting on work and creating learning goals. Students should also reach out to their teacher to meet at lunch or afterschool should they have a question about material from class.
- **Be willing to work together.** Students will often work in groups during math class. They will learn collaborative habits to help them work with all peers productively.

Materials

Materials to bring to class every day:

- math folder
- math journal
- pencils with erasers
- laptop
- water bottle

Homework

Homework serves a variety of purposes, such as practicing skills, reflecting on newly learned concepts, extending ideas from class work, introducing or previewing new concepts, and working on long-term assignments and projects. We view homework as an opportunity to explore ideas and take risks, and thus do not expect perfection. We encourage students to make every effort to do their own work before they seek help from others.

Homework will generally be assigned at the end of the week and due at the end of the week. Over the course of the week, students should spend **one hour total** on their homework. For example, this may be 30-minute blocks over two nights or 20 minutes each of three nights. **If students do not finish a weekly assignment in approximately one hour, they may stop working on it**. We, as teachers, consider this assignment complete, as it will allow students to participate in discussions and ask questions. Larger projects will take longer (maybe much longer) than one hour, but they will not be due the next day.

Homework will be a mix of:

- **Practice Problems:** Familiar problems to make sure students understand ideas from class.
- **Pushing Problems:** Unfamiliar problems (problems that are different from what we did in class) to go deeper into ideas from class, develop new ideas, and DO math.
- **Pondering Problems**: These might be problems that seem unrelated to the current topic, where students will see a connection later in the year.
- **Personal Problems**: An opportunity for students to create their own problems and ask original questions.
- **Review Problems:** These problems review material from earlier in the year.

Getting Help

Students are encouraged to form study groups whenever possible and to discuss math across grade levels in advisory or outside of class. Extra help is available from any math teacher by prior arrangement before school, at lunch, or after school. In addition, a drop-in math lab will be available on Wednesdays and Fridays after school in J209/J210 for any students wanting homework help or math extensions. Please encourage your child to contact their teacher by email **as soon as they have a question**, so that they do not risk falling behind on class content.

Flexible Groupings and Assessment

Teachers will start the year co-teaching with the movable wall open to explore easy-entry, open-ended tasks. Starting the year together will help all students to get to know all sixth-grade math teachers, whom they met during our step-up day in June. Further, all three teachers will be able to observe and work with all students in this problem-solving, community-building, and high-ceiling task.

Grade 6

The remainder of the year is divided into content-based units grounded in mathematical habits as part of our spiraled math curriculum (number theory, counting, algebra, financial literacy, and geometry). At the start of each of these units, students will spend one day in class pre-assessing content knowledge for that particular topic. Teachers will use the results of these low-stakes pre-assessments to create an individual action plan for each student related to that topic. This will be shared with students and parents. For the remainder of the unit, students will work within 2 or 3 differentiated, teacher-led cohorts on specific content to meet the learning objectives outlined in their personalized action plan. Groupings will be made based on student learning styles, prior knowledge of content, and recent work in class. Students will remain with this cohort and a single teacher for the whole unit. This model provides flexible groupings, such that a student in Kim's cohort could move next door to work with Lissie's cohort for a day or more, if necessary for additional practice or extension. Consistent with our current model of project-based, interdisciplinary learning, units will culminate in project work. All students will finish the year with the Sustainable Living Project, which is quite individual and differentiated. Students will have the opportunity to assess at the end of each unit and reassess throughout the year as a way to demonstrate and reflect on their growth for each unit.

Consistent with our current model of project-based, interdisciplinary learning, units will culminate in a project and assessment will be shared in a rubric.

<table>
<tr><th colspan="3">MATHEMATICAL HABITS OF MIND</th></tr>
<tr><td colspan="3">Use open-ended problems to explore mathematical habits of mind, including strategies for solving unfamiliar problems — explore and organize, generalize and test, abstract and symbolize, represent and connect, prove, apply, retrieve and strategize, communicate clearly, estimate and think precisely, show a growth mindset, respect community, reflect, develop academic habits</td></tr>
<tr><th>NUMERICAL RELATIONSHIPS</th><th>COUNTING</th><th>HISTORY OF MATHEMATICS</th></tr>
<tr><td>Investigate properties of numbers, including:
prime numbers
LCM and GCF
number systems
decimal place values in different bases
addition and subtraction in different bases</td><td>Investigate the uses and intricacy of counting, including:
combinations
permutations
counting lists
experimental probability
“Group Counting” project</td><td>Learn about the history of mathematical thought, including important mathematicians
“The Mathematician” project</td></tr>
</table>

Grade 6

PATTERNS AND ALGEBRAIC THINKING	FINANCIAL LITERACY	GEOMETRY
Investigate ways to recognize and represent linear, geometric, quadratic, and other mathematical patterns, including: • English descriptions • T-table descriptions • algebraic descriptions • graphical descriptions "Café Patternea" project	Investigate different representations of numbers, including: • Fractions, mixed numbers, decimals, and percentages • Investigate different types of numbers on the number line, such as whole numbers, integers, rationals, and irrationals "Twenty Year" Project	Investigate practical uses of geometry, including: • line and angle definitions/ properties • constructing/modeling • scale drawings, measurement • deriving area formulas for 2-D polygons Utilize project management skills to address: • budget • cross-curricular time management "Sustainable Living" project

Design Thinking, Engineering, and Computer Science

Course Overview

In this yearlong class, students will practice all the elements of the design thinking process as they proceed through several integrated projects. This class will begin with a deep dive into prototyping, including an introduction to (or practice with) the tools in the I-Lab and explorations into how programming can be used as a prototyping tool. Students will then work through a project called Health Innovations wherein students will identify health condition–related needs of someone they know, research and explore the problem space, invent solutions, and present their design process and prototypes. This project provides students with a solid foundation in design thinking and gives students an opportunity to focus on identifying a need and working to make a difference in the world. As the focus shifts to computer science, students will explore and develop computational thinking and programming skills. They will investigate ways to create and debug programs integrated with existing content knowledge and to make use of their developing understanding of the design thinking process. Students will primarily use Javascript to create projects that may include website design, digital art, and data visualization.

Course Goals

Students will learn and practice:

- All the elements of the design thinking process, including user identification, gaining empathy through interviews and observation, gaining confidence through the brainstorming process, and prototyping in different ways

- Presentation skills
- Develop computer programming habits and mindsets
- Integrate concepts from other classes to help understand the context of programming as tool for interdisciplinary work
- Practice diagnosing problems and assessing algorithmic correctness

Homework
Occasionally, assignments started in class will need to be finished at home, and it is possible that some pre-investigation into a subject will help utilize class time more efficiently. Because homework is likely to be uncommon in the I-Lab, it is very important that, when there is homework, all students complete the assignments, which will be detailed on the homework blog.

Assessment
Students will reflect on their process, as well as the results of their project, in a process of self-assessment based on core competencies. Students will receive peer and teacher feedback on delivery of their presentations and guiding support in their design work.

Visual Art

Course Goals
In sixth grade, each student will take a quarter of art taught by either Rachel or Reenie. This class gives students the opportunity to work with a wide variety of different two-dimensional and three-dimensional materials. Through independent and collaborative projects, students will learn and develop skills and techniques in perspective, proportion, color mixing, shading, precision paper cutting, collage, modeling, and design elements. Students will look at and discuss the works of traditional and contemporary artists that will help inspire and inform their projects. Each week students will learn art terms and the elements and principles of design to assist in their discussion of their own artwork with appropriate vocabulary. To further enrich their curriculum, art topics and themes for projects draw on subject matter the students are studying in their other courses, such as humanities, writing, and SEL.

Course Overview
This course is designed to offer students opportunities to explore a variety of media. Topics and themes are taken from other grade 6 courses to broaden and further their understanding of the subject. Materials and processes to be explored include drawing, acrylic and watercolor paint, paper-cutting, photography, ink, collage, clay, printmaking, and digital art. Through the manipulation of materials, students incorporate their own experiences, ideas,

and feelings into their art projects, whether they are drawing, painting, or sculpting. Students look at the work of artists such as Lotte Reiniger, Kara Walker, Beatrice Coron, Gustave Baumann, and Ellen Harvey to help give context and inspire their work.

Projects for this course include:

- Drawing (people, animals, architecture)
- Clay power animals
- Folktale silhouette lanterns
- Clay relief sculpture
- The Monument Project

December Arts Culmination and Spring Art Show

Friday, December 13, is our Arts Culmination for Quarter 1 and Quarter 2 students. This a wonderful evening showcasing the students' art work and music. It is an exciting event where we share all that we have done during the semester. The expectation is that all students will attend and participate.

The Spring Art Show is at the end of April and takes place during Arts Appreciation Week. Sixth graders in Quarter 3 and Quarter 4 display work and there is a reception celebrating their artistic accomplishments.

Homework and Assignments

Students are expected to keep a sketchbook, which will be a place for them to sketch ideas and write (reflections, artist notes, and vocabulary). Periodically through the semester, the sketchbooks will be collected.

Regular homework is minimal, with the exception of project deadlines. In these cases, artwork may need to be completed at home or during lunch recesses when the art studio is open to students. The expectation is that students will complete all art assignments.

If a student misses a class, they will be expected to make up the work outside of class time. This could mean at home or during an arranged time in the art studio during a lunch period.

If there is homework, students will hear about it first in class and then see it on the homework blog.

Open Studio Time

The art room is open to students at lunch recess on Tuesday and Thursday. They may use that time to work on independent projects or receive one-on-one help with current projects.

Assessment

Students are assessed with each project through learning outcomes that include communication & self-expression, problem-solving & critical analysis, and technical fluency. In addition to these competencies, the 8 Studio Habits of

Mind are used for assessment and student reflection. These 8 dispositions with transferrable skills include:

- Develop craft
- Engage & persist
- Envision
- Express
- Observe
- Reflect
- Stretch & explore
- Understand (arts) community

Calendar of Quarter 1 Projects
August 26 – October 17

- Crests
- Power animals (clay)
- Printmaking
- Self-portraits

Music

Course Goals
The goal of sixth-grade music is to explore Western European music theory through class study and ensemble performance. The class is designed for nonmusicians as well as students who already play an instrument. By the end of the year students will have gained a basic to advanced working knowledge of chord construction, rhythm, and ensemble skills that will serve as the foundation for continuation in the various seventh- and eighth-grade music ensembles.

Course Overview
Students will learn fundamentals of music, including rhythm, pitch, interval recognition, ear training, and a basic understanding of chord construction and progression, as well as understanding the layout and notes of the piano keyboard. Once students gain a basic understanding of theory, the group will apply it by selecting and learning songs as a group. Throughout the year the students will perform their songs, and they will record a CD at the end of the year.

Homework and Assignments
A portion of class time will be devoted to theory work. Students move through the program at their own pace and it should not require regular homework assignments.

Assessment
Students will be evaluated based their participation and focus in class discussion and rehearsals in addition to completion of theory worksheets in class.

Calendar

The group will perform on 4 occasions during the school year, including:

- All-School Assembly (GCC) — 1:00 pm
- Middle School Arts Culmination Concert (GCC) — December 13, 6:00 pm

SEL

Course Goals

SEL guides sixth-grade students to:

- Understand their own strengths and appreciate differences between themselves and others
- Work effectively in partnerships and groups by honing communication skills, such as active listening, asking thoughtful questions, empathizing, asserting oneself, and negotiating
- Explore the complexities and value of genuine friendship
- Gain a healthy perspective and truthful understanding of bodies, nutrition, and puberty
- Develop ethical thought and action

Course Overview

Sixth graders meet for SEL weekly in their gem groups. The curriculum is centered on developing community, facilitating relationship building, and integrating new and returning students through activities that explore identity, individuality, similarities, and differences. Celebrations and challenges related to making new friends, maintaining friendships, and including others are common themes in class discussions each year. Students also work through ethical issues introduced by technology as they prepare for the responsibilities of managing a laptop. In the spring, the students will prepare for their trip to Washington, DC.

Curriculum topics in sixth grade can include time management, organization, digital literacy, gender stereotypes, media literacy, points of view, managing stress, mindfulness techniques, self-advocacy, peer pressure, friendships, conflict resolution, health/nutrition, and puberty education. Topics are addressed in a sequence and developed in response to the specific and unique needs of the group of individuals. The program also supports the integration of laptops. We strongly believe in focusing on themes that are relevant and meaningful to students, so we implement some curriculum responsively as we move through the year.

Several times each semester, students use the Open Session framework to ask (anonymously, if they wish) for input from peers to help them solve problems and make decisions related to academics, friends, social concerns, and/or personal

struggles. Students participate in a problem-solving process that aids them in developing empathy, building trust, deepening relationships, establishing meaningful connections, and addressing everyday problems in an inclusive and collaborative setting. Open Session has proven to be an essential part of the sixth-grade SEL curriculum, serving as a healthy way for students to share their perspectives and gain from others' perspectives.

Sixth-grade SEL students will engage in classroom discussions, art projects, role plays, small-group and partnered activities, mindfulness practices, and writing/journal exercises. Students watch films, read fiction and nonfiction, interview others, write reflections, and work with guest educators to develop and apply skills.

Homework and Assignments

There are occasional homework assignments in SEL. Homework is designed to be a set of enjoyable activities to provide practice with SEL skills. Students can expect assignments to include reflective thinking and/or writing, interviewing an adult, and/or observation and research. Typically, students are given time in class to complete their work, and if they need more time to finish the work they may take it home and send it to me at an agreed-upon time.

Assessment

The most essential factor for SEL assessment is each student's level of class participation and personal reflection. Students will also be evaluated on behavior and focus, respect for the other students and the curriculum, and individual effort and follow-through on completing in-class activities, class assignments, and individual projects. Assessment includes how SEL skills are practiced and applied within the Nueva community and outside the classroom — during recess and lunch, for example.

Science

Course Goals

The goals are: to learn and practice scientific habits of mind (what it means to think like a scientist), to nurture love for science and learning together, to explore new scientific concepts, and to have fun!

Course Overview

During the fall semester, sixth-grade students will start by getting some practice with design thinking principles, which we'll use in many of our major projects. Fall semester projects include labs on measurement and motion, the Watermelon Free-Fall, and the Egg Drop Project. Students will also have the chance to

brainstorm, design, and conduct their own experiments, which they are welcome to showcase at Nueva's STEM Fair in the spring. Other fall topics will include velocity, acceleration, Newton's laws and force, and Einstein's general relativity. At the end of the year, we'll take the sixth grade to San Francisco's Exploratorium!

Spring projects and topics include electromagnetism, the Space Mission Project, astronomy and cosmology, sustainability, and climate science. We wrap up the year with the interdisciplinary Sustainable Living Project, which will be showcased at culmination.

Between major projects, students will participate in many lab experiments, where they will work individually and in groups. Additionally, students will learn from demonstrations, hands-on exhibits, lectures, homework, and assessments. Throughout the year, students will get to practice their design thinking and social-emotional learning skills in our class.

Homework and Assignments
All of our assignments will be announced on the homework blog. Students should spend no more than 25 minutes on their science homework.

Assessments
Students will reflect and be assessed on their progress at the end of each major project or assignment. The assessment may be based on a written check-in, worksheet, oral presentation, or lab write-up.

Calendar
Assignment due dates and project times will be posted on the homework blog.

Writing

Course Goals
The sixth-grade writing program has several goals:

- Practice a variety of writing genres, including expository (nonfiction and research) and creative writing
- Write critically about literature
- Think carefully about connections among ideas in the texts
- Plan for and organize a piece of writing using a variety of pre-writing strategies
- Reflect on learning styles, strengths, and weaknesses
- Revise writing thoughtfully, with attention to spelling and punctuation, word choice, organization, and flow
- Develop personal voice and style as a writer

Grade 6

Course Overview

The sixth-grade writing program is based on the overarching themes of the American experience. The literature for the course includes historical fiction, poetry, folktales, personal narratives, and nonfiction.

In the fall, the class uses literature as a basis for our writing. We look closely at the elements of character, setting, genre, and point of view, as well as consider how acts of kindness, moments of decision-making, community-building, and mentors affect story characters and our own lives. Writing pieces include analytical reader responses to literature (essays), original folktales, brief biographies, and research about a specific historical period and mathematical ideas. Our texts include *The Circuit*, by Francisco Jimenez, *Blood on the River: Jamestown, 1607*, by Elise Carbone, books of the students' choice, a variety of American folktales, and excerpts about a mathematician.

The spring semester's writing includes historical fiction, poetry, a passion project, work on the solar house project, research pieces in preparation for our Washington, DC, trip, and a Washington, DC, scrapbook. We read poetry, analyzing word choice and the use of poetry elements. Texts include a biography about an American historical figure, as well as a variety of poems, short stories, and excerpts.

The course focuses on the development of writing skills across genres, as well as the development of the writer's voice. Students practice grammar and vocabulary in the context of the writing pieces themselves. Work on managing time effectively, breaking projects into manageable chunks, writing for extended periods of time, and improving the flow and organization of writing pieces occurs throughout the year.

Homework and Assignments

Homework is a key element for success in this class. Homework time should not exceed 30 minutes a night. Homework is not given on weekends, but students may choose to complete assignments over the weekend if that fits their schedule better. Writing homework may include completing writing begun during class, reading texts, writing responses to literature, and doing "30-minute power writes."

Assessment

Students are assessed on their writing pieces, classroom participation, focus, study skills/organization, time management, appropriate laptop use, self-advocacy, resilience, and effort. Students receive informal verbal feedback during in-class writing sessions, as well as written feedback on their writing pieces. Writing mechanics practice and class discussions are a part of class as well. Each writing assignment has a rubric so that students can clearly understand the expectations for each assignment and receive clear written feedback on the key aspects of each assignment.

Grade 7

Humanities
The Silk Roads: Mapping Global Connections

Course Goals

The goals for seventh-grade humanities are to:

- continue preparing students to be independent learners with higher-order thinking skills, understanding the process of global connection and regional change over time
- think spatially and analyze data; foster visual literacy, with a focus on decoding maps and other infographics with focus on world regional geography
- promote understanding of the integral relationship between history, resources, and geography particularly in the contexts of Late Imperialism and contemporary geopolitics
- encourage reflection on global interactions past and present by delving into social, political, economic, cultural, and scientific exchanges between nations and regions of the world
- integrate with seventh-grade STEM curriculum to explore big ideas across academic disciplines
- improve skills in reading for information, annotating, and taking notes from discussion
- hone historical and sociological research skills, in both collaborative and independent research projects
- improve analytical writing skills, with a focus on creating clear, concise thesis statements
- develop an appreciation for world literature, art, and architecture and their relation to an understanding of globalization and human history
- foster historical thinking skills such as corroborating, sourcing, contextualizing, and close reading

The guiding philosophies of the term include:

- the relevance of integrated learning in dismantling silos of knowledge and building deeper understanding, including explicit application of knowledge of chemical properties to resource demand, extraction, and synthesis in the context of global history

- the necessity of understanding change over time as a result of scientific and technological innovation, as well as human migration and cultural exchange
- the significance of students' metacognition for enhanced learning
- the use of the "jigsaw method" to allow students the opportunity to choose topics about which they can become knowledgeable and learn from one another
- the design of assignments that challenge students in multiple modalities to encourage synthesis and analysis within an intellectual construct
- the design of week- and multiweek-long projects (collaborative and independent) with careful scaffolding to build habits of mind, academic understanding, excitement, continuity, and group cohesion
- the design of simultaneous investigations with another grade to stimulate intellectual relationships between grades
- the integration of multiple disciplines to help form holistic understandings of complex systems

Course Overview

The humanities, done right, are the crucible within which our evolving notions of what it means to be fully human are put to the test; they teach us, incrementally, endlessly, not what to do but how to be. Their method is confrontational, their domain unlimited, their "product" not truth but the reasoned search for truth, their "success" something very much like Frost's momentary stay against confusion.

— Mark Slouka

This fall we set ourselves to the crucible of the humanities by exploring the hidden connections that span the world we live on. We begin by developing our understanding of the ways in which our world is connected, from the highly visible "made in China" labels and shipping canals to the less visible NGOs, trade blocs, and undersea fiber optic cables that make our world a "smaller" place. Once we begin to understand the breadth and depth of global connections we turn our attention to the question "How did the world become so connected and interdependent?" This launches us into modern world history with a focus on trade, imperialism, and the development of modern international political and economic structures that underpin our global society. Combining our knowledge of contemporary global connections with the history of how these connections formulated, we continue our study of globalization by looking deeply at specific commodities and the hidden impacts and driving forces behind these industries. Using *A World History of Rubber* by Stephen L. Harp as an example case study, students choose their own commodity and develop an in-depth understanding of its role in the global economy and the history of trade surrounding it. We ask students to examine the driving factors behind the trade of their chosen commodity as well as the hidden impacts of

the trade on people and places around the world. Overall the globalization curriculum seeks to make visible the invisible connections that make our world an interdependent place economically, politically, and culturally.

Throughout the semester, students will work independently, in pairs, and in small teams to develop research questions and methodologies, craft hypotheses, test them with historical evidence, and ultimately write argumentative, evidence-based theses about their work.

The semester culminates with a grand physical representation of students' expertise in global trade and interdependence. At our December culmination, students arrive as experts in their chosen commodity, having examined it through the lenses of humanities and chemistry. Students write a research paper that examines 21st century imperialism through the lens of their commodity, clarifying the connections between past and present. Students also identify a social justice issue related to their commodity and create an action plan to address that issue; they participate in panels focused on world gold reserves, the impact of copper mining on developing countries, and the efforts of governments to mitigate illicit trade in ivory or diamonds; and they interact with each other, their families, and friends to brainstorm and promote solutions to real-world problems that will impact the globe in the next decades and centuries.

Units and Major Assignments

- **Where Did I Come From? Digitally Mapping Our Connected World.** Our first major assignment of the year builds on the work students did over the summer charting the path of a single object from raw materials to manufactured final product. Using Google MyMaps, students will digitally transpose the research they did over the summer to create an interactive, layered digital map. This assignment also serves as a schema-building activity that exposes students to the interdependent nature of the modern global economy.
- **Snapshot Autobiography.** Students will begin thinking critically about the work of historians by creating a snapshot autobiography that depicts four major events from their life. This assignment forms a jumping-off point for discussions we will have in class about historiographical questions such as how historians choose which events to emphasize in their narratives, and how historians uncover details of events that are not in "living memory." Ultimately this assignment provides students with the understanding that histories are very much constructed narratives shaped by a historian's choices about how to present and organize the past.
- **Motives of Imperialism: The Sun Never Sets on the British Empire.** Once students have developed an understanding of how our world today is interconnected and have gotten their feet wet with historical thinking skills, we turn our attention towards answering the question "How did our world

become connected?" The unit focuses on Victorian-era British imperialism as a historical phenomenon. By focusing on the British Empire, students examine the effects of imperialism on creating systems often rooted in inequality and exploitation while paradoxically striving towards improvement, enlightenment, and order. Students begin to grapple with the ways in which the historical phenomenon of global empires led to the connected yet unequal world we live in today.

- **Case Studies of Imperialism.** Our next three units focus student's attention on the effects of imperialism on the colonized and allow the students to "zoom in" on specific times and places. Students analyze three distinct examples: British India, the Belgian Congo, and Hawai'i (US imperialism). They examine these case studies by applying the same questions to each: What were the motivations? What were the justifications? What were the impacts? This leads students toward writing a complex comparative analysis focused on major themes of world history. The units reveal key similarities and differences while leading students back to the 21st century as they prepare for their culmination research project.
- **Culmination Research: Understanding Individual Commodities.** In preparation for the World's Fair Expo, students will choose and become an expert in a single commodity and the role it plays in the global economy. Their preparation for the World's Fair will have several components:
    - **Research Paper with Annotated Bibliography.** Students will research and write a paper exploring the hidden impacts and driving factors of their chosen commodity and related industry. Students will find sources, analyze them, and track their research by writing a full annotated bibliography.
    - **Country Profile.** As a supplement to the research paper, students will also research and become an expert in one country that is affected by their commodity and chosen industry.
    - **Issue and Action Plan.** As students have grappled all semester with the ways in which imperialism has shaped the world we live in today, their task for culmination includes identifying one social justice issue related to their commodity. Students also create an action plan that addresses this issue. This requires that students become not only experts in their issue and its historical roots, but also experts in the global and local systems and resources that can be mustered to solve the problem they have defined.
    - **Expert Panels**. Students at culmination will serve on a moderated panel of experts about their chosen commodity. This will give them a chance to verbalize the knowledge they have gained through research and tackle questions related to their commodity and the future of the world we live in.

Regular homework assignments during the week will include reading, writing, and research. Students will be expected to devote about two hours weekly to their humanities studies. Specific assignments will remain flexible to respond to student interest and curiosity generated in our classroom discussions.

Readings will include selections from texts including, but not limited to:

- *A World History of Rubber* by Stephen L. Harp
- *The Essential World History Vol.* II, W.J. Duiker and J.J. Spielvogel, eds.
- Excerpts from *The Journal of World History*
- *A History of the World in 100 Objects* by Neil MacGregor
- Excerpts and articles from various publications including:
    - *The New York Times*
    - *The BBC*
    - *Time Magazine*
    - *The New Yorker*
    - *The Economist*
- As much of this semester is focused on working as historians, students will read, interpret, and analyze multiple primary source texts and images
- Students will also have access through our library to multiple online databases and journal publications

Assessment

Students' level of engagement, written assignments, and project work will be used to determine understanding of the material and ability to synthesize and analyze information. We will assess the ways in which each student demonstrates task commitment in their independent and collaborative work, their capacity to use elements of historical thinking (sourcing, corroboration, contextualization, and close reading) in their written work and research, and their continued development of healthy habits of mind, including the ability to articulate the thinking and research behind the work they produce.

Writing

Course Goals

The seventh-grade writing program has the following goals:

- Think critically
- Communicate clearly in the written form
- Search for deeper meaning in literature
- Strengthen the written skills needed for critical expression
- Hone the artistic presentation of creative pieces with an eye toward precision of language and concise expression

- Revise for content as well as conventions
- Move in the direction of making reading and writing a lifelong habit
- Sharpen public speaking and oral communication skills

Course Overview

The seventh-grade students begin writing this semester with the introspective creation of a "Timeline of Learning to Write." In this piece, students reflect upon where they have been as writers, where they are as writers, and where they want to go as writers. This is a memoir with a focus: "How did you become the writer you are today?"

In the first semester, seventh graders write in a variety of genres, including memoirs, literary analysis, and short personal vignettes. To help our students grow both as writers and readers, we will participate in a shared reading of Sandra Cisneros' internationally acclaimed *House on Mango Street*, a collection of vignettes based on her experiences growing up in a working-class Latin-American neighborhood in Chicago. In the novel, Ms. Cisneros makes stories memorable through the repeated use of stunning figurative language. As students craft their very own thoughtful vignettes, taking inspiration from Sandra Cisneros, they will work in a writing workshop environment that will give them the opportunity to converse with one another and their teacher about their writing, and then to revise accordingly for meaningful content and artistic presentation. Students will also compose literary analysis paragraphs and/or a complete essay based on their close reading of Cisneros' work.

Moving towards Christmas break, we will begin a poetry unit that will continue into the second semester. This unit is devoted to writing poetry that springs from the reading of the Greek myths, which are so often alluded to in Western literature, including Shakespeare. We will all read *Heroes, Gods and Monsters of the Greek Myths,* an anthology compiled by Bernard Evslin. The written poetry that will be inspired by this reading will be modeled after Gregory Orr's lyrical sequence *Orpheus and Eurydice,* our "mentor text." Some students may also choose to further their knowledge of world mythologies during this reading period in order to expand upon the globalization unit they will be experiencing in their humanities classes. Poetry writing begins when we return from Christmas break.

Just before February break, writing class becomes the Nueva Drama Conservatory, a cornerstone of the Nueva experience. This year, we will be reading Shakespeare's *Tempest,* which will be followed by the composition of a five-paragraph literary analysis essay. During the study of the play, we will be joined by local professional directors who will introduce students to a variety of exercises and acting skills (stage combat, improv acting and singing, physical comedy, playwriting, and textual analysis). Groups will then form to rehearse and perform five or more plays. The term ends with culminating performances

and a trip to the Oregon Shakespeare Festival to view professional productions of the shows the class performed.

Homework
Homework may include reading, writing, light research, and at times, artwork. Ideally, the goal is to work hard in class so that evenings can be devoted to non-school activities when possible. However, with just two to three meetings per week, much of this is dependent upon available class time and how each student manages their time both at home and at school. Some students write best at home, and thus may leave that part of their homework for later in the day. Specific assignments will remain flexible to respond to student interest and curiosity generated in our classroom discussions.

Assessment
Students will be assessed on their writing pieces, classroom participation, focus during in-class writing time, organization, and growth. Rubrics will be used on all formal pieces to communicate clearly and effectively and to aid in the revision process when necessary. Individual writing conferences will be conducted throughout the day, both in and out of class time. The goal is for students to have a very clear perception of their strengths and challenges as young writers.

Math

Course Goals
- Develop knowledge in four content strands of mathematics: algebra and functions, geometry and measurement, statistics and probability, numerical relationships and operations
- Develop mathematical practices and habits of mind (see below)
- Develop deep conceptual understanding and connections in mathematics
- Develop attitudes of confidence, curiosity, persistence, and inventiveness in relation to mathematics
- Improve your ability to solve problems of varying complexity, both independently and collaboratively

Mathematical Practices and Habits Of Mind
In addition to specific content knowledge, Nueva's math program engages you in important mathematical practices and habits of mind. The following chart distills these practices as described in work done by Nueva faculty, the Common Core Standards, and other sources.

- **Explore & Organize** — approach a new problem by generating data; organize data effectively to identify patterns; tinker and invent; experiment, guess, and conjecture; discover algorithmic processes
- **Generalize & Test** — identify patterns and processes; describe, test, and justify them fully; look for patterns between different concepts
- **Represent & Connect** — represent problems in multiple ways and compare representations to generate insights
- **Abstract & Symbolize** — employ formal notations and define terms precisely to express mathematical ideas
- **Reason & Prove** — construct complete mathematical arguments supporting significant conjectures; prove; identify assumptions; critique and develop the reasoning of self and others
- **Retrieve & Strategize** — employ a variety of problem solving techniques; look for and compare multiple solutions; actively look for connections between topics; show retention of learning and ability to review and connect topics
- **Communicate** — communicate process and reasoning through multiple modes; write; present (formally and informally); express ideas clearly and succinctly; effectively target communication to appropriate audience
- **Apply** — apply the results of mathematical thinking to model real-world situations; make connections between different kinds of problems and areas of mathematical inquiry; look for applications independently
- **Growth Mindset** — Persevere; embrace challenge; see mistakes as an opportunity for growth; be willing to explore less comfortable topics; seek help appropriately; iterate; focus on process; show improvement over time
- **Community** — look for opportunities to participate and collaborate effectively in a variety of group settings; engage productively to improve classroom culture and support the learning of other students
- **Reflection** — use reflection to plan and reach goals; pinpoint areas of need
- **Academic Habits** — organize work and access it independently to maintain and deepen understanding; submit assignments on time; come prepared to class; break down complex tasks into discrete steps; create and follow through on a plan

Materials

Materials to bring to class every day:

- graph-paper notebook or binder with loose-leaf graph paper (depending on teacher)
- pencils with erasers
- laptop

Optional but useful:

- colored pencils
- ruler
- scientific calculator (TI-30X IIS recommended)

Homework

Homework serves a variety of purposes, including practicing skills, reflecting on newly learned concepts, extending ideas from classwork, reviewing skills and concepts, introducing or previewing new concepts, and working on long-term assignments and projects. We view homework as an opportunity for you to explore ideas and take risks, and thus do not expect perfection. We encourage you to make every effort to do your own work before you seek help from others. *Your* learning comes from *your* exploration.

Expect to have about 1 to 1.5 hours of homework per week. If you do not finish an assignment after working on it for this amount of time, **you may stop** working on it and bring it in to discuss with your teacher. Some projects will take longer than this, but they will be spaced out over several weeks. Please circle or take note of the questions you got stuck on and be ready to discuss these when you come to class. You may be asked to review and revise assignments — keep them in your folder or binder after they are returned to you.

Notebook

You will keep an organized notebook, which must be brought to class every day. This notebook is your personal mathematics resource. It will serve as your place to organize both class activities and homework.

Assessment

You will be assessed in a number of different ways, including individual paper/pencil quizzes and tests, projects, presentations, and participation in classwork. At the end of the semester, you will write a self-evaluation addressing the following areas:

- academic skills (participation, in-class productivity, study/homework habits, organization)
- mathematical practices and habits of mind
- mathematical content skills

Your end-of-semester report will include the following:

- a self-evaluation
- a teacher's report — a narrative describing your learning in the three categories above. This narrative may include the mid-semester report.

Individual Assistance

You are encouraged to form study groups whenever possible. You are also encouraged to discuss your math across grade levels in advisory or outside of school. In addition, extra help is available from any math teacher by prior arrangement before school, at lunch, or after school.

Grade 7

Groupings

Seventh-grade math classes will continue to use the flexible grouping model that was introduced to students in previous years. The year is divided into content-based units grounded in the mathematical habits as part of our spiraled math curriculum (probability, numeric structures, proportions, algebraic structure and equations, linear and quadratic relationships, and geometry). At the start of each of these units, students will complete a pre-assessment on content knowledge for that particular topic. Teachers will use the results of this pre-assessment to create an individual action plan for each student related to that topic. This will be shared with students and parents. For the remainder of the unit, students will work within differentiated, teacher-led cohorts on specific content to meet the learning objectives outlined in their personalized action plan. Groupings will be made based on student learning needs, prior knowledge of content, and recent work in class. Students will remain with this cohort and a single teacher for the whole unit. This model also provides flexible groupings within a unit as students might change cohorts for a day or more, if necessary for additional practice or extension. Consistent with our current model of project-based, interdisciplinary learning, units will culminate in project work. Students will have the opportunity to assess at the end of each unit and reassess throughout the year as a way to demonstrate and reflect on their growth for each unit.

DATA AND PROBABILITY	RATES, DIRECT VARIATION, AND PROPORTIONS	RATIONAL NUMBERS	ALGEBRAIC STRUCTURE
modeling probabilities with area and tree models calculating experimental and theoretical probabilities multistage events non-equiprobable outcomes calculating expected value comparing data sets using box-and-whisker plots random samples solving problems using random samples	distance-rate-time problems other rates in the real world unit rates in tables and graphs slope direct variation indirect variation proportions percents as proportions similarity *similar triangle postulates* *indirect measurement* *right triangle and circle trigonometry*	number systems and the real number line properties of rational numbers: fraction and decimal equivalents properties of and operations on integers and signed numbers associative, commutative, and distributive properties order of operations *complex and continued fractions* *imaginary and complex numbers* *invented operations* *absolute value challenge*	geometric representations of equivalent expressions writing and simplifying expressions testing equivalence by substitution, graphing, and simplifying factoring and expanding using the distributive property combining like terms

3D GEOMETRY AND SCALING	SOLVING EQUATIONS	LINEAR FUNCTIONS
surface area and volume deriving surface area and volume formulas surface area and volume ratios in scaled figures the Animal Project *higher dimensions* *fractal dimensions*	mental solving the cover-up method using properties of equality (balancing) simplifying and solving clearing fractions and decimals representing word problems with expressions and equations using algebra to solve word problems	making graphs from contexts interpreting graphs dependent and independent variables representing functions with tables, graphs, and equations identifying linear and nonlinear relationships finding slope and y-intercept to write linear equations *alternate linear equation forms (standard, point-slope)* *absolute value functions* *one-variable inequalities: solving and graphing* *solving simultaneous equations* *introduction to linear algebra and matrices*

Topics in italics are possible options for accelerated classes.

The Advanced Topics section will skip or quickly cover topics that students are already proficient in. This class will also cover linear algebra and matrices, and quadratic functions and graphing, with possible explorations of continued fractions, trigonometry, complex numbers, and Euler's formula, along with other (mostly algebraic) topics based on student readiness, need, and interest. Extension projects throughout the year will focus on proof-writing and communicating mathematical ideas, including written problem sets, a video math lesson, and an interdisciplinary project with Humanities involving data and statistics.

Japanese II

Course Goals

In the second year of Japanese language study, students expand and increase their foundation in order to express themselves and describe with more depth and detail. The study of Kanji, the third and last writing system of Japanese, is introduced. It is also fundamental that our students continuously develop as global citizens, so elements of cultural understanding are integrated throughout the curriculum. In particular, we explore societal values through Japanese folktales and children's stories. Students will better understand themselves in their society, compare cross-culturally with Japan, and continue to understand Japan with greater depth through their language study.

Grade 7

Course Overview

All students in Japanese, Mandarin, and Spanish independently review their language throughout the summer so as to start the new school year strongly. By saving several weeks of language review during the school year, we can dive into new content in September and focus on specific skills necessary for better language use and understanding.

Much of the increased vocabulary and grammar will empower students to describe their everyday activities, interests, skills, likes, and dislikes. They will also express the past and future tenses. Students study Kanji on a regular basis as well.

Throughout the second semester, learning content expands through increased vocabulary and grammar acquisition, and students explore Japanese folktales and characteristics of classic children's story writing. The culminating project for seventh grade is the Theater Performance, for which students read a children's story play and alter the script through their own language ability and expression. They can perform in person or create a culturally appropriate puppet show. Their final performance is recorded and shared with the community.

Homework and Assignments

Homework continues to be assigned regularly. It will take on a range of forms, including (but not limited to) reading and writing using current grammar and vocabulary points, creating short videos, and time devoted to individual study. For successful language acquisition, it is crucial that students study Japanese consistently outside of the classroom.

Assessment

While the styles of assessment vary, students learn to humbly receive and respectfully give feedback and constructive evaluations to peers. Students are also assessed on their progress of language acquisition throughout the year, their cross-cultural awareness and understanding, learning efforts, preparation for class, and so on.

Calendar

Japanese class meets for seventy-five minutes two or three times a week.

In the fall, there is a modern language field trip for all seventh-grade Japanese, Mandarin, and Spanish students. The Japanese language students go to Japantown in San Francisco to explore the fusion of local and Japanese culture, practice working in groups with observation assignments, and hopefully engage in Japanese conversation with native speakers.

In March, seventh graders have the important and special opportunity to host international exchange students from our partner school in Japan, the Doshisha Junior High Schools, for about a week. While the priority of hosting is given to the

eighth graders, seventh-grade families are certainly eligible — and encouraged — to apply for this important experience.

In late April, all students in Japanese, Mandarin, and Spanish embark on the Theater Performance. Their final projects will be shared with families and the Nueva faculty.

Mandarin II

Course Goals

- Develop good learning habits —frequently review the vocabulary and practice the speeches
- Explore different ways to read and write the characters and to find the individualized ways that are the most effective
- Show evidence of sufficient language control in the learned topics with practice, memorization, and retelling
- Use the language to narrate simple stories
- Read and write paragraphs in Chinese characters on familiar topics
- Describe people and animals in paragraphs with supporting details
- Write and orally present about a past event, such as the field trip, holidays, winter break, and weekends
- Ask and answer questions on where, who, when, what, and how is/how was
- Read menus in characters by identifying the category key words, such as 肉 (meat), 素(vegetarian), 汤(soup), 辣(spicy), etc.
- Understand important ancient Chinese morals and philosophy in Confucius and Taoism from classic stories, for example, 孔融让梨；拔苗助长；塞翁失马；庄周梦蝶
- Use the language to create meanings in familiar scenarios

Course Overview

Building on students' work in sixth grade, learning continues in project-based thematic units. The fall semester starts with review and summer project presentations on Mandarin children's books. To get ready for the language field trip to Oakland Chinatown, we have a Menu Project, in which students learn how to read restaurant menus in Chinese characters by identifying the key words, followed by a Restaurant Project to learn how to order in Mandarin. On the field trip, students use their Mandarin skills to do a scavenger hunt, interact with local people, and order in a restaurant and tea shop. They also have a Chinese calligraphy workshop in the Oakland Asian Cultural Center. An important goal of this field trip is to prepare students for the culmination trip to China by the end of eighth grade. After the field trip, we have a journal project

to learn how to describe a past event, which is followed by more journal projects on holidays and breaks to deepen the learning.

Then we move on to an extended writing project — Pets, Animals, and Monsters — to learn a variety of words, phrases, and sentence structures to describe animals, with a focus on memorizing more characters. In the end of the unit, students are guided to use all that they have learned and their imagination to create their own "monster." They first write out a script with required language forms to describe their monster and then create a visual illustration. In the final presentations, they listen to each other's speeches, ask questions to draw out meaning, and answer questions as evidence of comprehension.

After the Monster Project, students work on an extended story unit, in which they learn a variety of classic stories while they are introduced to the important ancient teachings of Confucius and Taoism. Students are guided to learn new vocabulary and sentence structures from authentic stories and to retell stories in their own words with sufficient practice. With the knowledge, skills, and language gained in the story unit, students work on their culmination World Language Play Project, in which they not only act out the classic stories with their group, but also create new real-life scenarios that they can apply the ancient teachings and newly learned language. All seventh grade language classes — Mandarin, Japanese, and Spanish — end with a world language film festival to share the plays that they have made.

Homework and Assignments

- Students are expected to spend 5–10 minutes of vocabulary review on Quizlet daily
- Students are expected to spend 20 minutes after each class on specific assignments or working on their projects/presentations

Assessment

- Weekly short vocabulary quiz
- Unit test at the end of a thematic unit (usually around three weeks)
- Presentation of learning after major projects
- Self-assessments
- One-on-one progress checks and oral tests

Calendar

- Mid-Autumn Festival on September 13 and class celebration that week
- Field trip: Scavenger hunt and cultural workshop in Oakland Chinatown
- Chinese exchange students visit January 10–16
- Spring Festival on January 25 and special celebration that week

Accelerated Mandarin II

Course Overview

In the second year of accelerated Mandarin, students further develop their four primary language skills — listening, speaking, reading, and writing — in a highly personalized project-based learning environment. With their habits of independent study and collaborative learning, they continue to work in small groups on carefully designed activities and projects based on their proficiency levels, with teacher instruction and support whenever needed. Individual conferences in class for goal-setting, check-in, and assessment are scheduled monthly.

To get ready for the World Language Culmination Film Project, in which students make their own film to present a classic folktale, the curriculum starts to focus more on reading, writing, and presenting skills. Another curricular focus this year is to introduce the upper school curriculum, with reading and writing from next year to help with placement and transition. It is an opportunity for the students to review and reinforce their character-writing skills with regular writing and presentation projects. By the end of the year, students should be able to write and present on a variety of familiar topics at different levels.

Homework and Assignments

- Students are expected to spend 5–10 minutes of vocabulary/character review on Quizlet daily
- Students are expected to spend 20 minutes after each class three times a week on specific assignments or working on their projects/presentations

Assessments

- Class participation and self-evaluation
- One-on-one progress checks
- Vocabulary quizzes
- Unit tests (interpersonal, presentational, and interpretive)
- Presentation of learning after major projects

Calendar

- Mid-Autumn Festival on September 13 and class celebration that week
- Field trip: Scavenger hunt in Chinatown
- Chinese exchange students visit on January 10–16 (tentative)
- Spring Festival on January 25 and special celebration that week

Spanish II

Course Goals

Students continue their progress and work toward greater proficiency in Spanish, beginning with a review of Spanish language, grammar, and culture studied in sixth grade. Students' curiosity about and understanding of Spanish-speaking communities' values, ideas, customs, and traditions will grow. Students will feel confident in moving forward with more complicated grammar structures as they begin to use past tenses (imperfect and preterit).

Course Overview

Learning continues through the practice of the four basic skills: listening, speaking, reading, and writing. Classes will be conducted almost entirely in comprehensible Spanish. We will focus on comprehension and fluency.

Students will be able to say and do more with their language skills. They will revisit present, present progressive, reflexive verbs, and simple future tenses (*ir* + *a*), as well as learning the preterit, imperfect, and impersonal *se*.

They will be able to talk in greater detail about their daily activities. Their grammar and vocabulary will prepare them for self-introductions, counting, ordering food, expressing past and future events in their lives (weekend/summer plans, weekly schedule), using numbers in real-life scenarios (e.g., dates, time, shopping), and scenarios in specific locations in and around a city. They will learn about the environment and geography specific to Mexico, and they will be able to talk about chores and activities at home and at school. They will study storytelling through art and murals. Students will also explore the themes of immigration from Spanish-speaking countries to the US.

In addition to the spoken language, students will continue to practice listening, reading, and writing. They will read Spanish children's books, make changes to plot and syntax, and write summaries about what they have read. This will lead to their culmination: writing their own play in the spring semester. Food preparation and cultural activities will continue to be part of the curriculum, allowing the students to experience the culture aesthetically and hands-on.

Homework

Each week, students will receive a list of homework assignments that they will turn in the following weeks. The expectation is that they spend 20–30 minutes per class meeting on the activities in the assignment collection. These will include practice with assigned vocabulary, grammar, reading, writing, and pronunciation, with remedial support and optional challenge work. Individual feedback is provided in return of homework, and daily class-time feedback is provided for individual and group corrections and support. Teachers may also

provide individual or small-group feedback as needed during lunch recess or before or after school.

Assessment
Written quizzes and oral interviews will enable students to monitor their vocabulary retention, grammar progress, and language learning success. Students will also be assessed based on their class participation, preparation, progress with content, study habits, and projects.

Field trip
Students will have one language-specific field trip in the fall semester where they will practice speaking, reading, and writing in Spanish.

SEL

Following your internal compass and making your own decisions.

Course Overview
At this stage of adolescent development, students are becoming more independent, developing their decision-making and problem-solving capabilities, experiencing a heightened sense of self-awareness, and deepening their sense of self and interpersonal relationships. In this weekly class, students will explore these milestones through the development and application of the fundamental skills within the core competencies and elements of SEL, adapted here from the Greater Good Science Center: self-awareness, self-management, social awareness, relationship skills, responsible decision-making, and prosocial culture, climate, and community.

Course Goals
SEL helps seventh-grade students:

- Learn what contributes to a brave space and work towards creating such a space for themselves and their peers
- Explore their various identities, personal values, and strengths, which inform their sense of self, purpose, and decision-making
- Learn about the science, nature, and practices of well-being and wellness
- Develop healthy strategies and language for managing stress and emotions
- Become more aware of their relationships with others and their engagement with the world around them
- Learn the qualities of healthy relationships and how to foster these types of relationships
- Develop and practice compassionate communication and conflict-resolution skills

- Strengthen listening skills
- Deepen their understanding of empathy, trust, and respect and how to make them part of everyday life
- Celebrate and honor the beauty of their differences.

Course Units

- Identity
- Values
- Conflict resolution
- Communication skills
- Power literacy
- Stress management
- Mindfulness, goal-setting
- Mental health,
- Sexuality
- Harm reduction drug ed
- Digital citizenship
- Trip preparation

Open Session

Approximately once a month, students engage in Open Session for one class period. Open Session is an invaluable SEL experience that allows classmates to respond to student-generated issues through an intentional, supportive exchange of listening and ideas. Students participate in a social problem-solving process that aids them in developing empathy and active listening skills, building trust, deepening relationships, establishing meaningful connections, and addressing everyday problems in an inclusive and collaborative setting. Students see how much they have to offer each other, support each other and feel supported, and are mutually empowered to take thoughtful action to deal with challenges. Open Sessions occasionally focus on certain themes as appropriate to their collective current experiences — for example, managing stress during busy academic periods or preparing for trips.

Homework and Assignments

There may be occasional homework assignments in SEL to provide students an opportunity to practice the skills and concepts outside of the classroom.

Assessment

Because social-emotional learning is a personal, individual process, ongoing self-reflection is our chosen method of assessment. Students will be asked to reflect regularly in their SEL journals on what they have learned while practicing SEL skills, prompts related to course units, and they will have informal check-ins with the teacher. Students complete two formal self-evaluations, one at the end of each term. All middle school students receive a formal written evaluation once a year for SEL; this occurs at the end of the second term for seventh-grade students.

Chemistry

Course Goals

Seventh-grade science focuses on building insights into basic chemistry principles through exploration, experimentation, observation, practice, and discussion. The course also seeks to foster students' intrinsic curiosity about science and to strengthen students' understanding of how chemistry shapes the world around them.

Course Overview

In the first semester, students will explore laboratory safety and procedures, properties of matter, atomic structure, electron configuration, the periodic table, and chemical bonding. Throughout the semester the students will make connections by reflecting upon real-world applications of these fundamental concepts.

In the second semester, students will delve deeper into the core concepts of basic chemistry, learning about formula writing, the mole map, balancing equations, stoichiometry, and reaction energy diagrams. The class will then learn about water chemistry — including solubility, acids and bases, and reaction rates — through the lens of environmental justice and green chemistry.

Homework and Assignments

In general, homework will consist of short assignments to help introduce or reinforce key concepts or to prepare for experimental work. As the year progresses, lab reports and unit projects will also be assigned.

Homework and assignments will be announced in class and posted on the homework blog. All electronic work will be turned in on Google Classroom. Students should spend no more than 30 minutes per night on chemistry homework.

Assessment

Students will be assessed based on their grasp of chemistry concepts and skills, the development of their transferable skills, and the growth of their global student skills. Formal assessments will include lab reports and unit knowledge checks. The focus of the latter is on deeper conceptual development rather than simple factual command, and students will often be able to use their science notes as a resource. In addition, students will be asked to make visible the key concepts and connections gained in each unit through creative chemistry projects and specialized culminating projects each semester.

Design Thinking, Engineering, and Computer Science

Course Overview

In this yearlong class, students will practice all the elements of the design thinking process through several projects, some focused more on engineering and tool usage, and others focused more on computer science skills and concepts. In the fall, students will continue to develop and deepen their programming and computational thinking skills as they explore Javascript through the lens of creative coding using the environment P5.js. In the spring, students will work toward deepening their understanding of the design thinking process and developing their fabrication competencies in the I-Lab, with a focus on rapid prototyping tools and techniques.

Course Goals

- Strengthen computer programming habits and skills.
- Develop fundamental skills in a programming language (Javascript), programming tools and concepts.
- Develop a basic understanding of the Internet of Things by interacting with various open web services/APIs and connected devices.
- Develop proficiency in and understanding of the design thinking process and associated mindsets and best practices
- Learn and improve fabrication and prototyping skills
- Integrate concepts from other classes to help understand the context of engineering challenges in a globalized world
- Apply scientific concepts to solve engineering and social problems
- Use tools and user feedback to diagnose problems, measure performance, and improve designs
- Build skills in collaborative problem-solving
- Improve ability to manage projects, set intermediary deadlines, and anticipate and bridge skill gaps

Homework and Assignments

Students will periodically be asked to observe, experiment, research, or prepare brief presentations about engineering concepts, design innovations, or the social context surrounding a particular problem. Homework should not exceed 30 minutes a week.

Assessment

While performing individual self-assessments, students will reflect on both their process and the resulting products of their studies throughout the semester. Students will be expected to demonstrate improvement from the skill level at which they entered the course.

Grade 8

Humanities (Fall Semester)
Global Systems

Humanities allows us to learn to read carefully, with appreciation and a critical eye; to find ourselves, unexpectedly, in the middle of the ancient texts we read, but also to find ways of living, thinking, acting, and reflecting that belong to times and spaces we have never known. The humanities give us a chance to read across languages and cultural differences in order to understand the vast range of perspectives in and on this world. How else can we imagine living together without this ability to see beyond where we are, to find ourselves linked with others we have never directly known, and to understand that, in some abiding and urgent sense, we share a world?

— Judith Butler, philosopher

Course Goals

- Continue preparing students to be independent learners with higher-order thinking skills in the context of understanding the role of geography in global systems
- Think spatially and analyze data; foster visual literacy and pattern recognition, with focus on decoding maps and other methods for data visualization
- Promote understanding of the integral relationship between geography and history, using design thinking to decode why geography and belief systems influence food systems
- Encourage reflection on cultural transmission over time across the globe from the lens of ethical issues, language acquisition, and trade using elements of depth and complexity to promote synthesis and analysis and extend critical thinking
- Integrate with eighth-grade STEM curriculum for understanding of big ideas across academic disciplines, with focus on the difference between natural systems and human engineered systems: structure, function, trends, and pattern recognition
- Continue developing skills in reading for information, note-taking, and research
- Effectively organize and communicate information in a variety of media
- Continue developing expository writing skills, with focus on analyzing sentences, writing the unified, coherent paragraph, and using the revision process
- Develop thesis statements that back up claims with textual evidence

- Enhance appreciation for world literature and its relation to an understanding of global systems
- Stimulate understanding and raise awareness of the interconnectedness of the humanities with the sciences (biology), design engineering, and the scientific method
- Enhance appreciation for world literature and its relation to an understanding of cultural transmission

Course Overview

Essential questions for the semester:

- How does geography shape history?
- How do systems thrive/function/evolve/interact/collapse?
- Why do we eat what we eat? Why these species?
- What is the future of food from the perspectives of climate change, population, food security, technology, innovation, cultural tradition?

Global Systems affords students the opportunity to explore the economics of trade, transmission of belief systems, languages, scientific ideas, technologies, music, and the arts over more than two millennia. Integrating with the science curriculum, our focus on food security and agriculture, climate, and innovations over time, we will grapple with the historical context and its implications for the future. The Global Systems curriculum endeavors to demystify the vast chronology of world history, as students research how geography, plant and animal evolution, historical events, and scientific and technological innovations have led to the world's contemporary realities.

Using a variety of resources, we will investigate the ways in which key innovations have allowed for periods of globalization. Using specific benchmarks in history as turning points for the process of globalization, students will research innovations in science and technology, communication and transportation, from 1250 BCE to 1000 CE, 1500 to 1850, and the 20th and 21st centuries. Selections from Oxford scholar Yuval Noah Harari's book *Sapiens: A Brief History of Humankind* will inform our study of the origins of agriculture and animal domestication. Peter N. Stearns' *Globalization in World History* will offer broad brushstrokes for historical context. Readings from the syllabus will stimulate discussion and writing assignments.

Imagine an area the size of a small city center, bristling with dozens of vast buildings set in beautiful gardens. Fill the buildings with every conceivable type of commodity and activity known, surrounded by miraculous pieces of engineering technology, tribes of indigenous peoples, agricultural innovations, and reconstructions of ancient and exotic streets. Invite all nations to take part. This describes the first-ever World's Fair in London in 1851. Never before had new inventions passed so quickly from one region to another. World's Fairs and Expositions have exposed over a billion people to innovation, accelerating the

process of globalization over the last 175 years. Now, imagine a Global Expo at Nueva!

By the end of the term, students will demonstrate understanding of the complex relationship between natural and human engineered systems: biological, agricultural, geographical, economic and political, and cultural diversity.

Readings in humanities will include articles and chapters from the following texts:

Globalization in World History by Peter Stearns
The Geography Behind History by W. Gordon East
Sapiens: A Brief History of Humankind by Yuval Noah Harari
The Fate of Food by Amanda Little
Natural Capitalism by Paul Hawken, Amory Lovins, L. Hunter Lovins
Prisoners of Geography by Tim Marshall
The Revenge of Geography by Robert Kaplan
The Levelling: What's Next After Globalization by Michael O'Sullivan
Vermeer's Hat by Timothy Brook

Homework and Assignments

- **Read Planet Earth** — Students chose a classic of world literature for summer reading. Using elements of depth and complexity to extend understanding (elements we will use throughout the year), students will compose a collage, dig into the novel to apply elements of depth and complexity, and present to the class
- **Turning Points in Globalization** — After introductory readings on the geography and history of globalization, students will write a response. We will also focus on note-taking and developing reading for information skills as we consider globalization over time.
- **Global Systems Research Project** — In November, students will choose a topic for independent research. After developing a set of research questions, students will gather data guided by the elements of depth and complexity. From their notes, students will then write an abstract with bibliography, which will be submitted during in early December relating to their chosen country and species in biology. The Global Expo on December 17 will present an opportunity to share their investigations and demonstrate the depth and breadth of understanding with the Nueva community.

Regular homework assignments during the week will include reading, writing, and research. Students will be expected to devote about two hours weekly to their humanities studies. Specific assignments will remain flexible to respond to student interest and curiosity generated in our classroom discussions.

Assessment
Students' level of engagement, written assignments, and project work will be used to determine understanding of the material and ability to synthesize and analyze information. We will assess the ways in which each student demonstrates task commitment in their independent and collaborative work, their capacity to use elements of depth and complexity in their written work and research, and their ability to articulate their thinking and research in the work they produce.

Humanities (Spring Semester)
Cultural Identity in the Context of History, Geography, Literature, and the Arts

Course Overview
The spring exploration in the humanities focuses on skills work in annotation, research, and essay writing. From the cultural identity collage to the ethnographic field study, students are asked to consider what influences shape the world and how beliefs are made visible. We consider the relevance of various elements of cultural identity, including age, ethnicity, ability, race, gender, sexual identity, and socioeconomic status.

What does cultural identity mean? How does cultural identity influence behavior, and by consequence, history? Does cultural identity change over time? The readings we annotate and discuss in January and February provided neuroscientific, sociological, and psychological material for understanding. After students consider the differences between ethnicity and race, the ramifications of "Us vs. Them" neurologically speaking, identity contingencies, and a variety of modes of learning, we transition to an understanding of the cultural identity of a country and city in China, Japan, and Spain at a particular period of time.

Students write a series of responses to their readings, watch a Seinfeld interview with Trevor Noah on growing up biracial in South Africa, work collaboratively to demonstrate understanding with a short presentation on *The Art of Learning* by Josh Waitzkin, and make their own personal cultural identity collage. We expect many rich discussions, particularly based on the chapters from sociologist Claude Steele's *Whistling Vivaldi* and neuroscientist Dr. Robert Sapolsky's *Behave*, Chapter 11, "Us vs. Them."

We transition to the study of a country's cultural identity by absorbing foundational information from a series of lectures on China, Japan, and Spain. Before beginning independent research, students apply their note-taking skills,

work together in study groups, and test themselves on the material from the lectures.

STARPAP (Science, Technology, Architecture, Religion, Politics, Art, Philosophy) offers not only intellectual understanding of the cultural identity of a city, it also gives students the opportunity to practice the research skills of reading for information, note-taking, outlining, and synthesis and analysis of information. They use elements of depth and complexity to build critical thinking and the executive functioning skills necessary to meet the challenge of writing a research paper. Our research includes a day at the San Francisco Public Library, where students dive into their research, using primarily print sources from the classroom resource library.

In addition to the intellectual preparation for the overseas trips, a series of field trips by language groupings over the course of the semester prepares students for the trips in May. Assignments designed specifically for the field (museums, gardens, classes) provide techniques for learning "on the road" and practice for the assignments students do while overseas.

Each student becomes an ethnographer, conducting an independent field study focused on one particular aspect of the culture in China, Japan, or Spain. These ethnography reports became section one of their websites for the virtual culmination. Students consider how and where people make their beliefs visible, examining roots in cultural history based on their own observations and interviews. Throughout the trip, students take notes in their travel journals and complete various short travel assignments to deepen their understanding and experience.

After our return, students reflect on their travel experiences in light of their academic research for STARPAP by choosing works of art by Picasso, Noguchi, or I.M. Pei. This essay serves as the final section of their virtual culmination website and becomes the self-evaluation for humanities.

Finally, students return to their STARPAP research for STARPAP Review, a chance to share their findings with their class in a short presentation and the Banquet of Cultural Icons, when characters in costume come to life and share their perspectives on history over time and space in an improvisational setting. We devote the final week of class to sharing work during the virtual culmination, the result of interdisciplinary work across the curriculum.

Writing

Course Goals

- Practice a variety of writing genres, including expository, narrative, creative, persuasive, literary analysis, and argument
- Integrate writing instruction with assignments from humanities and science
- Conduct research and evaluate sources for quality, accuracy, relevance, and depth
- Select appropriate passages for citation and embed the passages effectively into writing
- Cite research accurately
- Read and think deeply about literature
- Participate in conversations about literature both as contributor and active listener
- Read and analyze different types of literature, including novels, short stories, and poetry
- Read and analyze different types of nonfiction, including memoir, essays, and journal articles
- Plan for a piece of writing using a variety of prewriting strategies
- Implement outlining and other types of prewriting organizational strategies
- Practice the ACEIT paragraph structure (Assert, Cite, Explicate, Interpret, Tie-in)
- Using mentor texts as guides, experiment with different stylistic approaches to the sentence
- Edit writing carefully, with attention to grammar, spelling, and punctuation
- Revise writing thoughtfully, with attention to development of ideas, structure, transitions, and word choice
- Implement teacher feedback in revision

Course Overview

Eighth-grade writing requires students to complete stand-alone assignments for the writing class in addition to supporting the writing they do in other courses, especially humanities and science. Whenever possible, the course integrates lessons and assignments with the interdisciplinary theme of the semester. For the fall semester, eighth-grade writing focuses on the narrative nonfiction genre, with especial focus on the memoir. They review their summer reading, followed by close reading analysis and student-led discussion of *Without You There Is No Us* by Suki Kim — a haunting memoir about teaching English to the sons of Korea's ruling class.

Additionally, students read and analyze the content, context, language, themes and stylistic choices of a range of extracts from memoirs, including *Maid: Hard*

Work, Low Pay, and a Mother's Will to Survive by Stephanie Land, Helen McDonald's *H is for Hawk*, *American Childhood* by Annie Dillard, and *Perfume Dreams* by Andrew Lam. They explore details — carefully noting and selecting techniques, structural elements, unconventional sentence structure and punctuation, and literary devices to be emulated in their own essays. Students think carefully about themselves and their language choices, including synonyms, before writing longer and shorter pieces of narrative nonfiction in journals in response to a wide range of prompts, including a lengthy personal essay. They explore a range of punctuation. They engage in a revision and reflection process of both content and accuracy of grammar, punctuation, and spelling. They also read a novel, *The Age of Miracles* by Karen Thompson Walker, exploring science fiction conventions before using these in their own expression of their understanding of the genre in a short story or novella.

In the spring semester, the writing curriculum will integrate with the humanities theme of cultural identity. Students will read the exciting, issue-based exploration of justice and racism in Ernest Gaines's *A Lesson Before Dying*, followed by a written literary analysis. Students will practice literary analysis skills in group discussions and collaboratively in preparation for the essay. Students will also read and analyze a graphic novel related to cultural identity in an online learning community. In addition, each student will create a video podcast that features the cultural identity of a subject of his/her choice. Writing class will also support the STARPAP research paper assigned in humanities.

The course is designed to inspire deep thinking about literature and writing, persuasive writing in light of a close reading of a text, careful selection and use of research, and an appreciation for literature. The course will be most rewarding and challenging when the class functions as a community of learners in which each member of the class has a voice; therefore, class discussion is paramount. Students will learn from each other, read writing aloud, write extemporaneously, work collaboratively, and share thoughts and observations with one another. Over the course of the school year, students will conduct research for many different assignments across the curriculum, and research skills will be taught explicitly and assessed formally and informally in writing class. Students will use *Noodletools* to keep track of all of their resources and to keep track of their notes, ideas, and interpretations of how the research might be used. Students practice grammar and vocabulary in the context of the written pieces themselves.

Assignments will be scaffolded to help students manage time effectively, break projects into manageable chunks, and improve the flow, organization, and length of written pieces throughout the year.

Homework

Expect homework regularly. Homework will include writing incremental pieces as students work toward a fully formed draft, reading and annotating, and

occasionally watching or listening to online clips posted to the blog. Often homework will be turned in via Google Classroom, but all assignments and due dates will be posted to the blog as well.

Assessment
Students are assessed on their written pieces, classroom participation, focus, study skills/organization, appropriate laptop use, self-advocacy, revision practices, and effort. Rubrics accompany major writing assignments so that students clearly understand the expectations for each assignment. Students will also receive individualized narrative feedback on working drafts and final products.

Math

Course Goals

- Develop knowledge in four content strands of mathematics: algebra and functions, geometry and measurement, statistics and probability, numerical relationships and operations
- Develop mathematical practices and habits of mind (see below)
- Develop deep conceptual understanding in mathematics
- Develop attitudes of confidence, curiosity, persistence, and inventiveness in relation to mathematics
- Improve your ability to solve problems of varying complexity, both independently and collaboratively

Mathematical Practices
In addition to specific content knowledge, Nueva's math program engages students in important mathematical practices. The following list distills these practices as developed by Nueva faculty with reference to the Common Core Standards and other sources.

- **Explore & Organize** — approach a new problem by generating some data about the problem; organize data effectively to identify patterns; tinker and invent; experiment, guess, and conjecture; discover algorithmic processes
- **Generalize & Test** — identify patterns and processes; describe, test, and justify them fully; look for patterns in different concepts
- **Represent & Connect** — represent problems in multiple ways and compare representations to generate insights
- **Abstract & Symbolize** — employ formal notations and define terms precisely to express mathematical ideas

- **Reason & Prove** — construct complete mathematical arguments supporting significant conjectures; prove; identify assumptions; critique and develop the reasoning of self and others
- **Retrieve & Strategize** — employ a variety of problem-solving techniques; look for and compare multiple solutions; actively look for connections between topics; show retention of prior learning and ability to review and connect topics
- **Communicate** — communicate process and reasoning through multiple modes; write; present (formally and informally); express ideas clearly and succinctly; effectively target communication to appropriate audience
- **Apply** — apply the results of mathematical thinking to model real-world situations; make connections between different kinds of problems and areas of mathematical inquiry; look for applications independently

Habits of Mind

Nueva engages students in developing the following habits of mind to support their learning across disciplines.

- **Growth Mindset** — persevere; embrace challenge; see mistakes as an opportunity for growth; be willing to explore less comfortable topics; seek help appropriately; iterate; focus on process; show improvement over time
- **Community** — look for opportunities to participate and collaborate effectively in a variety of group settings; engage productively to improve classroom culture and support the learning of other students
- **Reflection** — use reflection to plan and reach goals; pinpoint areas of need
- **Academic Habits** — organize work and access it independently to maintain and deepen understanding; submit assignments on time; come prepared to class; break down complex tasks into discrete steps; create and follow through on a plan

Materials

Materials to bring to class every day:

- 1.5″ math binder with graph paper
- pencils with erasers
- laptop

Optional but useful:

- ruler
- colored pencils
- scientific calculator

Homework

Homework serves a variety of purposes, including: practicing skills, reflecting on newly learned concepts, extending ideas from classwork, reviewing skills and concepts, introducing or previewing new concepts, and working on long-term

assignments and projects. We view homework as an opportunity for you to explore ideas and take risks, and thus do not expect perfection. We encourage you to make every effort to do your own work before you seek help from others. *Your* learning comes from *your* exploration.

Expect to have 60–90 minutes of homework each week. If you do not finish an assignment within that time frame **you may stop** working on it and bring it to discuss with your teacher.

Assessment

You are expected to take responsibility for your own learning and to participate fully in the assessment process. You will be assessed in a number of different ways, including individual paper/pencil quizzes and tests, projects, presentations, and participation in classwork. You will be expected to complete a self-evaluation addressing the following areas:

- academic skills (participation, in-class productivity, study/homework habits, organization)
- mathematical practices and habits of mind
- mathematical content skills

Your end-of-semester report will include a teacher's report — a narrative describing your learning in the three categories above. This narrative may include the mid-semester report.

Individual Assistance

You are encouraged to form study groups whenever possible. You are also encouraged to discuss your math across grade levels in advisory or outside of school. In addition, extra help is available from any math teacher by prior arrangement before school, at lunch recess, or after school.

Groupings

Eighth-grade math classes are grouped in four levels. Groupings are flexible, and it is possible to change your grouping if it's not right for you. If you feel like you're in a class that's hard for you to keep up in, you can talk to your teacher about whether a grouping change might help. Or your teacher may have other suggestions for ways to help you keep up. If you feel like you need more challenge, you can talk to your teacher about ways to pursue more challenges in the class you're in or whether a faster-paced class would be appropriate.

Grade 8

Course Outline (Regular and Accelerated)

PYTHAGOREAN THEOREM (5 weeks)	ALGEBRAIC & NUMERIC STRUCTURES (7 weeks)	LINEAR FUNCTIONS & DATA (4 weeks)
Expand and simplify binomial squares Apply the Pythagorean theorem to triangles Construct a logical Pythagorean theorem proof Identify and apply Pythagorean triples Calculate Euclidean and taxicab distance between two points Simplify radical expressions Identify and apply special right triangles Trigonometric ratios Pythagorean Theorem Poster-Making Project	Multiply polynomials Factor using common factors Factor by difference of squares Factor trinomials, including perfect squares Give reasonable estimates for Fermi problems Derive and apply the laws of exponents to simplify algebraic expressions Understand and apply scientific notation Simplify rational expressions Divide polynomials Understand and apply the binomial theorem Teach a Factoring Method Project	Graph and write linear equations in point-slope form Convert between and analyze different forms of linear equations Write equations for horizontal and vertical lines Write equations for parallel and perpendicular lines Use technology to find and analyze a line of best fit for bivariate data Find and analyze curves of best fit for exponential data Understand and apply least squares regression Data Project
SYSTEMS & INEQUALITIES (4 weeks)	**QUADRATICS (6 weeks)**	**SYMMETRY (4 weeks)**
Connect algebraic and graphical representations of solutions to a system Write and solve systems of linear equations with two or more variables using both substitution and elimination Solve word problems using linear systems of equations Solve and graph solutions to one-variable linear inequalities Solve and graph solutions to two-variable linear inequalities Solve systems of linear and quadratic equations Linear programming (optimization problems with multiple constraints) Desmos Art Project	Identify quadratic functions from a graph, table, and equation Solve quadratic equations using factoring Solve quadratic equations by completing the square Derive and apply the quadratic formula to solve quadratic equations Solve application problems with quadratic equations Find quadratic equations using systems of linear equations Graph quadratic functions Analyze quadratic functions by finding the vertex, roots, and y-intercept Convert between standard, factored, and vertex forms Launcher Project	Identify and classify transformations (rotations, reflections), isometries, and congruences Compose isometries Identify symmetries of regular polygons Perform modular arithmetic Understand the definition of a group Identify symmetry groups in an equilateral triangle Identify symmetries in frieze and wallpaper patterns using rotations, reflections, translations, and glides World Language Trip Project

Topics in italics are possible options for accelerated classes. Timings are approximate.

Grade 8

Course Outline (Math 1–Aligned Advanced Topics)

SETS, LOGIC & COUNTING (5 weeks)	GEOMETRY (5 weeks)	FUNCTIONS (6 weeks)	SYSTEMS of EQUATIONS (4 weeks)
Convert between verbal descriptions and Venn diagrams Convert between verbal descriptions and formal logic notation using set and logic symbols Combine and verify the truth of logical statements Recognize and apply inductive and deductive reasoning Apply multiplicative and division principle to count sequential choice and the additive and subtraction principle for partitions and restrictions Generate binomial coefficients and prove their algebraic properties	Perform and explain constructions Identify, prove, and apply properties of congruent angles Identify, prove, and apply properties of congruent triangles Identify, prove, and apply properties of similar triangles Develop and prove formulas for areas and perimeters of polygons Derive and apply formulae for surface area and volume of solids Prove and apply properties of quadrilaterals	Identify and connect representations of a function, especially for linear, quadratic, exponential, absolute value, and piecewise functions Find the domain, range, and inverse of a function Transform functions via horizontal and vertical translations, reflections, and stretches Identify key features of functions, including intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; even- or oddness; end behavior; and periodicity	Solve equations (linear, quadratic, radical, and rational) Convert between different forms of functions Solve and apply general systems of equations to problems Solve optimization problems using systems of equations and inequalities
STATISTICS (4 weeks)	**RIGHT TRIANGLE & UNIT CIRCLE TRIG (4 weeks)**	**TRIGONOMETRIC FUNCTIONS (3 weeks)**	**SYMMETRY (3 weeks)**
Represent data using appropriate graphs (histograms, box plots, normal probability plots) Evaluate and describe measures of center and spread Evaluate and describe measures of position (z-scores), test for outliers and determine probability using normal distribution Use technology to find and analyze least squares regression models to understand goodness of fit	Calculate and apply angles and lengths of right triangles using trigonometric ratios Recognize and apply special triangles (30-60-90, 45-45-90) Convert between coordinates and angles (in degrees and radians) on the unit circle Explore solutions to trigonometric equations using the unit circle	Apply concepts of transformations to graph cosine and sine functions in degrees and radians (amplitude, phase shift, period, and vertical translation) Apply cosine and sine functions to model real-world periodic phenomena Apply cosine and sine functions to solve problems (including kinematics and dynamics)	Identify and classify transformations, isometries, & congruence Compose isometries Perform modular arithmetic Apply basic definitions from abstract algebra to represent ideas in different domains Understand the definition of a group Identify symmetry groups in an equilateral triangle Identify symmetries in frieze and wallpaper patterns

Course Outline (Math 2-Aligned Independent Studies)

The Independent Studies section will enable students to explore topics at an individually appropriate depth and pace. Particular emphasis will be placed on developing habits of self-direction, goal-setting, and initiative within a framework of support and guidance from the teacher. Topics covered will depend on student background and goals for next year, but in broad terms will include some units that closely mirror units from advanced topics (AT) as listed above,

some that cover similar topic areas but that build on work done last year and go further and deeper, and some that are distinct, as follows:

- **Geometry —** Similar to AT, with a deep dive into triangle centers and introduction to non-Euclidean geometry
- **Sets, Logic, and Counting —** Similar to AT
- **Functions and Polynomials —** Builds on work from last year and AT topics; extends to rational functions, synthetic division, and instantaneous rate of change
- **Statistics —** Similar to AT
- **Trigonometry —** Builds on work from two years ago (right triangle trigonometry) and last year (unit circle trigonometry and introduction to trigonometric functions), extending to inverse trigonometric functions, trigonometric identities, and laws of sine and cosine
- **Vectors and Matrices —** Builds on brief introduction last year, extending to dot product, cross product, and transformation matrices
- **Symmetry —** Similar to AT
- **Review and Deepen —** Other topics from past years that will be reviewed and deepened include quadratic functions and exponential and logarithmic functions

Japanese III

Course Goals

In the third year of Japanese language study, students substantially expand their vocabulary and grammatical comprehension, aiming to use the target language conversationally at all times in class. Students also develop a more nuanced understanding of Japanese society through class discussions, field trip explorations, Lit Club readings, and so on. This course prepares students for their international exchanges: hosting a Doshisha exchange student in March and going to Japan in May as a real traveler and exchange student. Through day-to-day interactions, study, and practice, as well as day trips devoted entirely to cultural exploration, students will have many opportunities to immerse themselves in Japanese leading up to their exchange experiences.

Course Overview

All students in Japanese, Mandarin, and Spanish independently review their language throughout the summer in order to start the new school year strongly. By saving several weeks of language review during the school year, we can dive into new content in September and focus on specific skills necessary for better language acquisition. Throughout the year, covering such topics as restaurants, Japanese homes, and schools, students will develop skill at handling practical

communication and cultural situations. Vocabulary and much Kanji (the third writing system) will be accompanied by applied grammar and some functions of formal and informal speech.

Homework and Assignments
As in past years, homework is assigned regularly and varies. Most of all, students are expected to continuously study independently to develop proficiency.

Assessment
Assessment continues to vary. We still use peer feedback and constructive evaluations, which develop students' metacognitive skills. Students continue to be assessed on their progress in language acquisition and cultural awareness and understanding. In eighth grade, students are asked to demonstrate their language progress in a tangible and re-usable educational format (for example, digital book, poster, recorded presentation, film clip, and so on).

Calendar
Throughout the year, Japanese class meets two or three times a week for seventy-five minutes each class.

Beginning in November, all students in Japanese, Mandarin, and Spanish participate in several field trips designed to increase their cross-cultural awareness, stretch their comfort zones, practice traveling skills, and strengthen their cultural understanding. Our field trips might include Japantown, the San Francisco Library, the Asian Art Museum, the Green Gulch Farm Zen Center, and Hakone Gardens.

In March, eighth graders have the opportunity to host Japanese exchange students from the Doshisha Junior High Schools, our partner schools in Kyoto, for about a week. This hosting experience is integral to a Nueva student's understanding of what it means to be a student traveler overseas and truly develops global citizenship and empathy.

In May, all eighth graders travel on their culmination trips to China, Japan, and Spain, where they inevitably become goodwill ambassadors of the United States as well as a Nueva exchange student living with a host family and attending school. In their second week in Japan, Nueva students become serious travelers (not tourists) and gather observations and data for their cross-curricular assignments in humanities, SEL, math, science, language, and so on.

The culmination project in eighth grade is a cross-curricular published website. Using their yearlong studies in all courses, and gathering their observations and data in Japan, students complete their research and present their conclusive findings, stories, photos, and videos in a website which will be shared with families and the Nueva faculty at the end of the year.

Mandarin III

Course goals

- Continue to demonstrate and develop habits of mind in foreign language learning, and global citizenship in class, community, and the culmination trip to China
- Be able to use the previously and newly learned language to express and describe self, family, school, daily activities, and preferences in conversations using a variety of words, phrases, and sentence structures
- Be able to understand and communicate both in speaking and writing new topics, including restaurant, time, daily routines, class schedule, weekends, hobbies, and China trip scenarios

Course Overview

Build on the foundations from the previous years, eighth-grade Mandarin class continues to develop the four primary language skills — reading, writing, speaking and listening — in thematic project-based learning units. Students are expected to demonstrate and continually develop habits of independent study and collaborative learning in and out of classroom. The fall curriculum introduces important content from the upper school Mandarin I course, for the alignment with and transition to Mandarin II class by the end of the year. Important topics include time and daily activities; hobbies and weekends; invitations, school schedule, and appointments; and restaurants and cafés. In the spring, students start to work on different scenarios to get ready for hosting the Chinese exchange students in February and their own China trip, homestay, and exchange in May. The scenarios include the most important language to express and communicate needs/preferences.

There are five field trips before the culmination trip to China, with the goals not only to practice the language in real-world contexts, but also to learn how to travel safely as a group; how to interact with people and environments with respect; how to learn with an open mindset; and how to demonstrate best behavior and global citizenship in another country.

Homework and Assignments

- Students are expected to spend 5–10 minutes of vocabulary review on Quizlet daily
- Students are expected to spend 25 minutes after each class, three times a week, on specific assignments or working on their projects/presentations

Assessment

- Weekly short vocabulary/character quiz
- Unit test at the end of a thematic unit (usually around three weeks)

- Presentation after major projects
- One-on-one progress checks and oral tests
- Self-assessments

Calendar

- Mid-Autumn Festival .....September 13 and class celebration that week
- Field trip #1.....Wednesday, October 16
- Chinese exchange students visit .....January 10–16
- Spring Festival .....January 25 and special celebration that week
- Field trip #2.....Wednesday, March 4
- Field trip #3.....Friday, April 10
- Field trip #4.....Thursday, April 30
- Field #5 .....Wednesday, May 6 (tentative)
- China trip .....May 9–21

Accelerated Mandarin III

Course goals

- Prepare students linguistically, socially, and emotionally for the exchange week in January and culmination trip in May
- Continue to demonstrate and develop global citizenship in class, community, field trips, and the culmination trip to China
- Continue to develop the four language skills: listening, speaking, reading, and writing in expended themes and topics, including various scenarios from the exchange weeks and China trip
- Continue to demonstrate and develop habits of mind in foreign language learning with intrinsic motivation, frequent review, independent and group learning skills, active engagement, and participation
- Continue to introduce curriculum from upper school Mandarin classes to prepare students for the placement and transition at the end of the year

Course Overview

There are two important focuses in the eighth-grade Mandarin class. The first one is to prepare students for the exchange week in January and culmination trip in May. The second one is to prepare for the placement and transition to upper school Mandarin classes at the end of the year.

To accomplish the course goals, students work on a variety of cultural, social, and language scenarios. Those scenarios cover the most common everyday topics and important situations for hosting a Chinese exchange student and for

traveling, homestay, and school experience in China. Students learn and practice conversations to express, react to, and support preferences, opinions, and emotions in each scenario with various discussions, activities, presentations, and projects. They brainstorm and discuss how to respond positively as a part of the group if an incident were to happen, such as a late train. They learn the cultural differences and practice how to respond appropriately and respectfully in a variety of cultural scenarios, such as understanding why their host family may keep offering food and how to say no politely. In addition to the scenarios, reading and writing skills are continually developed in alignment with upper school Mandarin classes.

There are five field trips in language groups this year before the culmination trip to China, with the goals not only to practice the language in real-world contexts, but also to learn how to travel safely as a group; how to interact with people and environments with respect; how to learn with an open mindset; and how to demonstrate best behavior and global citizenship in another country.

Homework and Assignments

- Students are expected to spend 5–10 minutes of vocabulary review on Quizlet daily
- Students are expected to spend 25 minutes after each class, three times a week, on specific assignments or working on their projects/presentations

Assessment

- Weekly short vocabulary/character quiz
- Unit test at the end of a thematic unit (usually around three weeks)
- Presentation after major projects
- One-on-one progress check and oral test
- Self-assessments

Calendar

- Mid-Autumn Festival ..... September 13 and class celebration that week
- Field trip #1 ..... Wednesday, October 16
- Chinese exchange students visit ..... January 10–16
- Spring Festival ..... January 25 and special celebration that week
- Field trip #2 ..... Wednesday, March 4
- Field trip #3 ..... Friday, April 10
- Field trip #4 ..... Thursday, April 30
- Field #5 ..... Wednesday, May 6 (tentative)
- China trip ..... May 9–21

Spanish III

Course Goals

The first semester of eighth-grade Spanish kicks off with review and enhancement of vocabulary and grammar concepts learned in sixth and seventh grades, with orientation towards preparation for the end-of-year culminating trip to Spain. Special attention will be given to the students' comfort in speaking and their overall language comprehension. The language of instruction continues to be almost entirely comprehensible Spanish, practicing in each class session the four basic skills — listening, speaking, reading, and writing. The class meets 2 or 3 times a week. Students will be prepared for their culminating project of travel to Andalucía for homestay and school week as well as unique tours to one of a variety of areas: Salamanca, Segovia, Toledo; Madrid, Alcalá de Henares, Toledo; or Córdoba, Granada, Ronda. Their interdisciplinary work in their homestay, school visit, and tour will be shared in a website presentation upon their return.

Course Overview

Students will add the conditional, present, and past perfect tenses to their repertoire as well as the simple subjunctive mood. They will deepen their understanding of stem-changing, reflexive, and irregular verbs. Organizing and differentiating between these many verbs and tenses will offer a fun challenge during the semester. The course of study includes descriptions of people and places; seeking information, expressing feelings and opinions; extending, accepting, and declining invitations; agreeing and disagreeing; and making travel and lodging arrangements. Other topics will include the deeper study of geographic vocabulary, pastimes, religions, fabrics, history, politics, social issues, and Spanish fine arts and crafts, dance, and sports.

Food-tasting and hands-on cultural activities and dance will be woven into the curriculum to allow a fuller aesthetic, vivid experience of Spanish language and culture.

Homework

Each week, students will receive a list of homework assignments that they will turn in the following weeks. The expectation is that they spend 20–30 minutes per class meeting on the activities in the assignment collection. These will include practice with assigned vocabulary, grammar, reading, writing, and pronunciation, with remedial support and optional challenge work. Individual feedback is provided in return of homework, and daily class-time feedback is provided for individual and group corrections and support. Teachers may also provide individual or small-group feedback as needed during lunch recess or before or after school.

Assessment
Written quizzes and oral interviews will enable students to monitor their vocabulary retention, grammar progress, and language learning success. Students will also be assessed based on their class participation, preparation, progress with content, study habits, and projects.

Field Trips
Students will participate in five field trips:

- for a market scavenger hunt and restaurant visit
- to the SF public library in preparation for their STARPAP research,
- to a museum
- to learn Sevillanas and eat tapas
- to the San Juán Batista Mission, to explore the Spain-California connection

These experiences are closely tied into their humanities curriculum and will be conducted mostly in the target language, preparing them for their culminating trip to Andalucía, Spain, in May, for homestay, school visit to Alcalá de Guadaíra, and cultural tour of Salamanca, Segovia, Toledo; Madrid, Alcalá de Henares, Toledo; or Córdoba, Granada, Ronda.

Science

Course Overview
Welcome to eighth-grade science! In the **first semester**, we'll use the past, present, and future of food systems to explore evolution, ecology, and biochemistry. Working closely with the humanities globalization curriculum, we will ask:

- How do food systems thrive?
- Why do we eat what we eat?
- What is the future of food?

On **Thursday, November 7**, all students will attend one of a suite of critical field experiences, allowing students to apply their skills in systems thinking and allowing the grade to explore a wide variety of different parts of food systems, from growing to processing to consumption. This will also serve as our first community-service learning day, allowing students to explore diversity, justice, and actions towards making food systems thrive.

The semester will culminate with an interdisciplinary food security project, to be presented — among work from each discipline — at the World Fair on the evening of **Tuesday, December 17**.

In the **second semester,** we build on themes of nutrition and energy, delving deeper into public health as we focus on cellular biology and human body systems. Students will explore randomized-control trials (and how we know what we know about nutrition), hands-on dissections (sheep heart, fetal pig), and effectively communicating science to different audiences. The semester culminates with a digital science communication project based on students' overseas language field trips.

Throughout the year, students will be learning how to *do* science and think like scientists. Our core science practices are **planning investigations, analyzing data, arguing from evidence, using models,** and **communicating science.**

Assessment
Students will be assessed via formal lab reports, quizzes, and interdisciplinary projects. They'll get feedback for learning via EdPuzzle videos, class discussions, activities, note-taking, and written drafts.

SEL

Empowered Transformation

Course Overview
At this stage of adolescent development, students are becoming more independent, developing their decision-making and problem-solving capabilities, experiencing a heightened sense of self-awareness, and deepening their sense of self and interpersonal relationships. In this weekly class, students will explore these milestones through the development and application of the fundamental skills within the core competencies and elements of SEL, adapted here from the Greater Good Science Center: self-awareness, self-management, social awareness, relationship skills, responsible decision-making, and prosocial culture, climate, and community.

Course Goals
SEL helps eighth-grade students to:

- Learn what contributes to a brave space and work towards creating such a space for themselves and their peers
- Explore their various identities, personal values, and strengths, which inform their sense of self, purpose, and decision-making
- Learn about the science, nature, and practices of well-being and wellness
- Develop healthy strategies and language for managing stress and emotions
- Become more aware of their relationships with others and their engagement with the world around them

- Learn the qualities of healthy relationships and how to foster these types of relationships
- Develop and practice compassionate communication and conflict-resolution skills
- Strengthen listening skills
- Deepen their understanding of empathy, trust, and respect and how to make them part of everyday life
- Celebrate and honor the beauty of their differences.

Course Units

- Identity
- Values
- Conflict resolution
- Communication skills
- Power literacy
- Stress management
- Mindfulness, goal-setting
- Mental health
- Sexuality
- Harm reduction drug ed
- Digital citizenship
- Trip preparation

Open Session

Approximately once a month, students engage in Open Session for one class period. Open Session is an invaluable SEL experience that allows classmates to respond to student-generated issues through an intentional, supportive exchange of listening and ideas. Students participate in a social problem-solving process that aids them in developing empathy and active listening skills, building trust, deepening relationships, establishing meaningful connections, and addressing everyday problems in an inclusive and collaborative setting. Students see how much they have to offer each other, support each other and feel supported, and are mutually empowered to take thoughtful action to deal with challenges. Open Sessions occasionally focus on certain themes as appropriate to their collective current experiences — for example, managing stress during busy academic periods or preparing for trips.

Homework and Assignments

There may be occasional homework assignments in SEL to provide students an opportunity to practice the skills and concepts outside of the classroom.

Assessment

Because social-emotional learning is a personal and individual process, ongoing self-reflection is our chosen method of assessment. Students will be asked to reflect regularly in their SEL journals on what they have learned while practicing SEL skills, prompts related to course units, and they will have informal check-ins with the teacher. Students complete two formal self-evaluations, one at the end of each term. All middle school students receive a formal written evaluation once a year for SEL; this occurs at the end of January for eighth-grade students.

Computer Science (Q1–Q2), Design Thinking/Engineering (Q3–Q4)

Course Overview

In this yearlong class, students will practice all the elements of the design thinking process through several projects, some focused more on engineering and tool usage, others focused more on computer science skills and concepts.

In the fall, students will develop and deepen their programming and computational thinking skills as they explore Javascript and the D3.js (Data Driven Documents) library to build skills in visualizing data and applying that skill to journalism

In the spring, students will work toward understanding and applying the design thinking process while developing fabrication competencies in the I-Lab. The students will start by developing skills in physical computing and finish up in Q4 with a significant shop-focused project.

Course Goals

- Strengthen computer programming habits and skills
- Develop fundamental skills in a programming language (Javascript), the visualization library D3.js, programming tools, debugging, and other related concepts
- Develop a basic understanding of the programmatic manipulation of data and visualizing data in the interest of “Data as Journalism”
- Develop proficiency and understanding of the design thinking process and associated mindsets and best practices
- Learn and improve fabrication skills
- Integrate concepts from other classes to help understand the context of engineering challenges in a globalized world
- Build skills in collaborative problem-solving
- Improve ability to manage projects

Homework and Assignments

Students will periodically be asked to observe, experiment, research, or prepare brief presentations about engineering concepts, design innovations, or the social context surrounding a particular problem. Homework should not exceed 30 minutes a week.

Assessment

While performing individual self-assessments, students will reflect on both their process and the resulting products of their studies throughout the semester. Students will be expected to demonstrate improvement from the skill level at which they entered the course.

Recital Projects

Course Overview

The Recital Project, now in its 30th year, is an opportunity for students to explore and cultivate a potential passion guided by a mentor! Each eighth grader designs and completes an independent project around an area — any area — they would like to pursue. Students are encouraged to be as independent as possible throughout the process; however, individual support is provided as needed. Recital Night will be the week before spring break, and is not to be missed!

Class Goals

Each student will:

- Identify an area that they are very excited to explore and learn more about
- Recruit a mentor to guide them in their work
- Craft an active project that develops their skills and accomplishes something
- Research and create a research paper, tutorial, or other approved demonstration of knowledge of some aspect of their project
- Create a presentation/demonstration of their work for Recital Night
- Develop project management skills, including identifying specific actionable steps (SAS's) for their to-do lists
- Reflect upon their experiences and growth

Homework Expectations

Students are expected to work for 1–2 hours every week between September and April. After spring break, students will be assigned a short design thinking project to complete on their overseas trips.

Assessment

Students will assess their own work in this course and get feedback during regular individual check-ins with the instructor, who will assist each student in building their project management, creativity, and decision-making skills.

Grades 5–8

Fifth- and Sixth-Grade Physical Education

Course Goals
Students in the middle school physical education program will use the information and skills they acquire through physical activities, sports, and games to achieve and maintain a health-enhancing level of fitness and demonstrate responsible personal and group behavior. Students will recognize and take advantage of the opportunities physical activity provides to experience gratification, challenge, and self-expression.

Course Overview
The fifth- and sixth-grade middle school physical education curriculum will focus on developing enduring knowledge of principles of physical fitness.

Fitness
Students will demonstrate knowledge of key physical fitness principles. Curriculum will emphasize four primary concept areas: endurance, flexibility, strength, and muscular endurance. Students will have the opportunity to track their personal progress.

Activities
Students will explore various physical activities, including cooperative games and an introduction to recreational sports. A variety of unique and nontraditional activities will also be introduced. This year's offerings will allow students to explore general fitness, throwing & catching, balance & agility, hand-eye coordination, martial arts, and creative movement.

Assessment
Assessment areas include motor skill and movement pattern execution, fitness self-evaluation, and class participation. Students are expected to demonstrate effort, focus, and positivity in class. Students will be evaluated on their ability to work both cooperatively and independently. Semester assessments will use a rubric with all these criteria, as well as a brief narrative.

Calendar

Fall 2018	Spring 2019
August — Introduction • Goal Setting, Course Overview, Team-Building, Cooperative Games September — General Fitness	January — Balance & Agility • Nueva Ninja Warriors Obstacle Course, Agility Ladder, Relay Race February — Martial Arts & Self Defense

• Track & Field, Cross-Country, Jump Rope, Climbing, Yoga October — Throwing & Catching • Team Handball, Frisbee, Collaborative Games November — Foot Games • Soccer, Futsal, Kickball, Hacky-Sack December — Cooperative Games • Team Building, Sharks & Minnows, Chaos Tag	• Taekwondo, Judo, Jiujitsu March — Net Sports • Volleyball, Pirate Ball, Swamp Ball, Badminton, Paddle Ball April — Creative Movements • Dance, Tumbling, Hula Hoop, Zumba, Yoga May — Hand-Eye with Extension • Hockey, Lacrosse, Paddle Ball, Tennis

Seventh- and Eighth-Grade Physical Education

Course Goals

Students in the middle school physical education program will use the information and skills they acquire through physical activities, sports, and games to achieve and maintain a health-enhancing level of fitness and demonstrate responsible personal and group behavior. Students will recognize, and take advantage of, the opportunities physical activity provides to experience gratification, challenge, and self-expression.

Course Overview

The seventh- and eighth-grade middle school physical education curriculum provides a wide array of physical activities to help students develop skills through exercises and play. Through the exploration of sport-specific skills and a variety of games, students will stay fit and learn basic athletic skills.

Fitness

Curriculum will emphasize key fitness components and planning strategies to allow students to better understand fitness and create their own exercise regime. During the second semester, students will transition into grade-focused projects. The seventh graders will be focusing on backpacking preparation, which includes conditioning for hiking and nutrition. Eighth graders will be further developing their ability to create their own functional fitness plan.

Activities

Students will explore various physical activities, cooperative games as well as recreational and traditional sports. Some of the activities planned for this year are track and field, team handball, foot games (soccer, futsal, foot volley, hacky-sack), basketball, volleyball, badminton, martial arts, and creative movements/dance.

Assessment
Assessment areas include motor skill and movement pattern execution, fitness self-evaluation, and class participation. Students are expected to demonstrate effort, focus, and positivity in class. Students will be evaluated on their ability to work both cooperatively and independently. Semester assessments will use a rubric with these criteria as well as a brief narrative.

Calendar

Fall 2017	Spring 2019
August — Introduction • Goal Setting, Course Overview, Team-Building, Cooperative Games September — Fitness 1 • Track & Field, Cross Country, Climbing, Yoga October — Throwing & Catching I • Team Handball, Frisbee, Softball November — Foot Games • Shooting, Kicking, Punting, Juggling (Soccer, Futsal, Kickball, Hacky-sack, Takraw) December — Throwing & Catching II	January — Fitness II • Speed, Agility, Quickness, Power (Sprinting, Jumping) February — Martial Arts & Backpacking • Backpacking, Taekwondo, Judo, Jiujitsu March — Net Sports & Backpacking • Volleyball, Pirate Ball, Swamp Ball, Badminton, Paddle Ball April — Creative Movements & Backpacking • Dance, Tumbling, Hula Hoop, Zumba, Yoga May — Backpacking

Physical Education Electives

Yoga
Our Nueva middle school yoga session will be a multilevel class and all are welcome to participate! We will practice breathing techniques (pranayama) for relaxation and mental clarity. The students will learn how to meditate and do guided visualizations. They will also learn myofascial release for stress and tight muscles. Our yoga practice will also include a yoga flow and team-building exercises. Most importantly, the students learn to love and look forward to getting on their mat and practicing yoga!

Swim
Swimmers will build coordination, strength, endurance, and speed through both pool and dry-land swim practices. Pool workouts will provide athletes with differentiated opportunities to boost their endurance and speed with both sprint and long-distance practice. Dry-land workouts will focus on strengthening the key muscle groups used during swimming. Stroke drills and clinics will improve coordination and technique. Skills developed will include timing for intervals and splits, pacing, flip turns, dive and wall starts, and proper form for each of the four strokes (butterfly, backstroke, breaststroke, and freestyle). Throughout the

season, athletes will practice supporting teammates, setting personal goals, and self-assessing their progress.

Rock Climbing
Students will explore and deepen their understanding and proficiency in the sport of rock climbing. Throughout the quarter, students will find, define, and expand their capabilities as climbers through practice, self-reflection, and perseverance. Students will primarily engage in top rope climbing and belaying, as well as bouldering and conditioning drills. They will learn fundamental climbing moves and techniques while also increasing their proficiency as belayers. Students will become familiar with different climbing holds, terminology, and safety practices. The course will also expose students to the theory of more advanced climbing such as lead belaying, sport climbing, and traditional climbing.

Dance
Students will explore dance as a space where athleticism and creativity meet and meld. By learning choreography from a variety of genres, students will consider how emotion and rhythm take shape through their own bodies. Students will also have opportunities to create their own routines, individually and in small groups, in order to deepen their own understanding of their individual movement style and explore genres of dance that they are personally interested in. Through this course, students will:

- build endurance through repeated practice of routines and choreography
- grow increasingly precise and agile in their movements
- strengthen their core and their center of balance in a variety of poses and exercises
- practice and deepen their own authentic and artistic style of movement

XC
Students will participate in a variety of running workouts designed to help them train to race distances between 1 and 3 miles. While endurance is the primary focus of this training, students will also work to develop their speed and agility with respect to running on a variety of terrain, such as fields and trails. They will also work on coordination through daily dynamic warm-ups and running form drills. Strength and conditioning are integral to training in order to prevent injury. Prevention of common running injuries, as well as healthy habits, will be discussed. Students will also have the opportunity to learn about and to discuss general health and wellness topics, such as hydration, nutrition, rest, and recovery, as they relate to distance running. Throughout the course, students will have the opportunity to reflect on and track their personal progress toward meeting fitness and/or competitive running goals.

Racquet Sports
Students will explore two racquet sports: pickleball and badminton. Fitness on the courts is a key element in this class, and to that end, students will work on endurance through sport-specific drills, running, and a variety of games. Students will also work on hand-eye coordination by working on juggling and hitting the ball. Students will be introduced to and work on the following pickleball strokes: dinks, volleys, mid-court, backhand, forehand, lobs, and overhead. During the badminton segment, students will work overhead and underarm forehand and backhand strokes. As in pickleball, students will also work on hand-eye coordination through drills and play. They will play mainly doubles games with or without scoring during each class meeting. Students will fill out a wellness sheet at the beginning of each class and record data to see their improvement over time. Students are assessed on habits of mind, preparation for class, effort, and skill development.

Strength and Conditioning
Students will develop skills and knowledge to manage their individual fitness level based on their goals. We will evaluate and measure our fitness components and plan specific training using best practices and current trends in strength training. This class will focus on developing knowledge and strategies to improve and maintain a strong and well-balanced fitness level. Students will develop strength through both traditional and nontraditional forms of exercise.

Flag Football
The varsity flag football team comprises seventh and eighth graders. We meet three times a week, for either practice or games, and focus our time together on conditioning, individual skill development, and team play. Every student will get a chance to play, sometimes at multiple positions, based upon physical and skill levels, attendance at practices, and overall attitude. We emphasize maintaining a positive attitude, win or lose, while respecting our opponents, officials, and each other as we put forth full effort each day. Football is a game, and it should be fun. Success on the field is not always about wins and losses — physical, emotional and intellectual growth, confidence-building and teamwork are essential elements of a successful season.

Golf

Course Goals
Students in the middle school golf program will have an opportunity to refine their golf skills, such as grip, stance, swing, putting, club selection, short game, and strategy.

Course Overview
The seventh- and eighth-grade golf curriculum will focus on developing enduring knowledge of principles of golf.

Activities

Students will explore various elements of the sport, including specific swing development drills, club selection, and strategic expansion. A variety of unique and nontraditional activities will also be introduced.

Assessment

Assessment areas include motor skill and movement pattern execution, fitness self-evaluation, and class participation. Students are expected to demonstrate effort, focus, and positivity in class. Students will be evaluated on their ability to work both cooperatively and independently. Quarterly assessments will use a rubric with the above-mentioned criteria, as well as a brief narrative.

Where

Students participating in the golf elective will meet 18 times during the course of the fall quarter. Practice will be held at Crystal Springs Golf Course (6650 Golf Course Drive, Burlingame). Nueva will provide transportation to and from the course.

Our Nueva Library

Overview

The library's mission is to support student acquisition of reading, research skills, critical thinking, and learning in general. We aim to help students find their right book!

Your children encounter rich and complex language arts, reading, and research opportunities in all disciplines at Nueva. The library program plays a role in supporting these crucial experiences. Our students learn information literacy skills as they practice locating resources for projects, both in print and online. They will grapple with defining their need for information, analyzing and evaluating resources, and communicating their conclusions clearly. In concert with teachers, library staff help students be good consumers of information in our world of information overload. Our library affords your children the opportunity to read for pleasure or for information about their passions. The library staff is always available to introduce students to authors we think may help enlarge their worlds and hone their literacies.

Don't forget that the library also has resources for adults — parents and teachers — on gifted education, curriculum and pedagogy, social and emotional or affective education, learning differences, and, of course, books and reading and literary discussions.

Library Privileges
All members of our Nueva community — students, parents, staff — automatically have borrowing privileges. We keep barcodes at the library desk. Your student has his/hers already; stop by and ask for yours.

Our loan period is two weeks. We don't charge fines, and are liberal about renewing books. If they are not returned by the end of the year, though, we do charge a replacement fee.

Hours of Operation
From 7:30 am to at least 3:45 pm — and maybe later, as long as there is a staff person on site. You are welcome to check books out of the library any time the doors are open, whether or not any library staffer is present. Check out using the automated system, or write your name, book title, and barcode number on a slip of paper and leave it on the desk.

Check out our school's libguides — **libguides.nuevaschool.org/home**. Our lower and middle school catalog is web-based and you can access it at this link at any time, on or off campus, to check our holdings. Our school subscribes to multiple databases, which can be accessed under the upper school tab (see Databases A-Z at the top) — in addition to tips about the latest and greatest in children's literature.

Programs
We administer Nueva's 35-year-old Lit Club program for grades 2–8. See **Lit Club** below for details.

We sponsor Adult Lit Club for parents (current and alum!) and staff. Email Marilyn Kimura for details (mkimura@nuevaschool.org).

We work with our NPA to sponsor a huge Book Fair and Celebration of Literacy Week in November/December. We are the best kids' bookstore in the Bay Area! Proceeds enable us to provide students with classroom visits from first-rate authors and illustrators.

Come in and check us out!

Marilyn Kimura
Librarian

Rachael Moscato
Library Assistant

Lit Club

Overview
Founded in 1982, Lit Club began in one classroom with 6 children and an adult. Now, all middle school students participate in groups facilitated by teachers, specialists, teaching associates, academic advisors, and community members.

Grades 5–8

In Lit Club, students in grades 5–8 practice reading strategies and literary analysis, learn about genres, and practice applying critical and creative thinking to their reading in small groups. Lit Clubs meet twice weekly for 30 minutes. Students are encouraged to read for pleasure, develop a love of literature and story, and share this passion with others in focused discussions. Fifth and sixth graders and seventh and eighth graders will be in Lit Clubs in mixed groupings. Program Goals

Developing lifelong readers who love literature and enjoy sharing that pleasure: Over time the program has increased the volume of reading among both children and adults, enticing them to explore new authors and genres. As *Becoming a Nation of Readers* and other reports confirm, proficient readers develop in schools where there are many, varied opportunities to read high-quality literature.

Talking to understand: Lucy Calkins, a leading educator in the workshop approach to teaching reading and writing to young children, tells us that the books she remembers are those she has talked about. It has also been suggested that talking can reveal our thoughts and feelings to ourselves, as well as others. Adults facilitate this search for meaning and allow for an orderly flow of verbal "traffic" in which each person's ideas are valued.

Literature-based curriculum and critical thinking: Selections are made from the rich body of children's literature in print today. Students are asked to think critically, creatively, and divergently about a piece of literature — to interpret, question, predict, evaluate, and share personal experiences or responses that relate to the work of fiction under discussion. The diversity of reading assignments, homework, activities, and explorations reflect the value placed on the styles and strengths of all children as they become a literate community through the process of what Judith Langer calls "envisioning," the sense-making we do as we read.

If you are interested in being a Lit Club facilitator, please call the library for information or email Marilyn Kimura, Librarian (mkimura@nuevaschool.org).

Electives: Grades 5–8

Electives are offered over four quarters as opportunities for students to pursue interests in fields such as performing arts, visual arts, writing, math, and technology. Students will receive an evaluation for each quarter of electives taken. Note that this is the only opportunity for seventh and eighth graders to take art and music courses. Below is a list of offerings from the fall semester.

Grades 5 and 6

Creative Writing: The Multitudes

This creative writing course will give students the opportunity to explore multiple genres of creative writing through both reading and writing. To that end, we will read short texts that illustrate multiple interpretations of what poetry, fiction, and nonfiction can be. We will also write in several different genres and explore how we — and other writers — can question traditional genre designations and blur the lines between them. Students will spend most of their class time working on writing. In addition, as a culminating experience in the course, students will have the opportunity to polish, design, and print a piece of writing as either a hand-sewn chapbook or a broadside.

Electronics and Wearables for Holiday Displays and Costumes

Let's bring all those holiday characters to life in this elective. We will be using basic electronics, controllers, fabric, foam, and various materials to create displays and/or wearables. This elective will blend art, tech, and fabrication.

FLL Robotics

This is a required elective class for students participating in the FIRST Lego League Robotics team program. Class time will be used to teach basic robotics skills and for teams to work on their projects.

Kinetic Art: Mobiles

By suspending forms that move with air flow, we will create projects similar to Calder's mobiles. We will use the laser cutter and other shop tools to make forms to be suspended by wire to create balancing, whimsical sculptures.

Meant to Bead

We'll begin this elective by learning how beads have been used in different cultures around the world. Then we'll learn the basics of stringing, weaving, and embroidering with beads. Once we've learned the basics of beading and these methods, you will pick your own project to pursue.

Music Production and Sound Design

This production workshop class utilizes the digital audio workstation Ableton to teach students how to produce and arrange any type of music that they would like. All are welcome — the only prerequisite is a love for music. Students can learn techniques to imagine and realize compositions in any and all genres. The class is set up as primarily a workshop, with a series of creative prompts and critical listening sessions to stimulate growth and progress.

Reimagining Superheroes and Fairytales

We'll reimagine the sterotypical superheroes and fairytale characters (princesses, heroes, etc.) and create our own, either through art, writing, or

acting. Perhaps you'll imagine a transgendered hero, a Disney princess with a disability, rewrite Spiderman to have a different race or cultural identity, represent the Marvel characters as senior citizens, have a princess save a prince, or have two princesses fall in love! The possibilities are endless. We'll begin the elective by reading, watching, and analyzing different fairytales and superhero stereotypes from literature and media. We'll then spend time brainstorming and rewriting our own stories, plays, or creating our own pieces of art!

Speech and Debate

A beginning class in public speaking (extemporaneous and impromptu) and elementary debate. Students help determine which topics we choose.

Yarn Crafts: Knitting, Crochet, Macramé

Learn the basic steps of knitting, crochet, and macramé, or strengthen skills you already have. Use them to create scarfs, clothes, stuffies, quilts, hanging baskets, or whatever you'd like. Some time will be spent learning and working on a project as a class, and some will be spent on independent projects that allow you to use your creativity and find your own inspiration. You will choose your final project and go deeper into the skills of one of these crafts.

Grades 7 and 8

Creative Writing: The Multitudes

This creative writing course will give students the opportunity to explore multiple genres of creative writing through both reading and writing. To that end, we will read short texts that illustrate multiple interpretations of what poetry, fiction, and nonfiction can be. We will also write in several different genres and explore how we — and other writers — can question traditional genre designations and blur the lines between them. Students will spend most of their class time working on

writing. In addition, as a culminating experience in the course, students will have the opportunity to polish, design, and print a piece of writing as either a hand-sewn chapbook or a broadside.

Debate!

This class welcomes beginners as well as those with experience in debating. We'll practice both public forum and parliamentary debate on a wide variety of current events topics. We'll emphasize research skills, analyzing topics under time pressure, and better public speaking. A good introduction to interscholastic debate, if that interests you; or just a chance to have fun with speaking and thinking.

Economics: A Study of Choices

We will explore a wide variety of topics in theoretical and applied micro- and macroeconomics. Students begin the quarter by working through the fundamentals of supply curves, the determinants of demand curves, and eventually work to create presentations on different market structures. We then turn our eyes to deeper explorations of several key economic topics, including international trade, economic inequality, and environmental economics.

FTC

FIRST Tech Challenge teams (10+ members, grades 7–12) are challenged to design, build, program, and operate robots to compete in a head-to-head challenge in an alliance format — PLUS marketing, fundraising, outreach, writing, social media. It's more than just robots!

Meddling in the Business of Wizards: Fantasy in Literature and Movies

Fantasy is a genre that has much to offer — and not only escapism. Fantasy can playfully comment on social reality and deal with complex moral questions. So who's your favorite fantasy writer? Come along and share their work. Let's try

writing in their style — or the style of others. We'll look at the work of writers such as Gaiman, Le Guin, Riggs, Beagle, Rowling, Wynne Jones, Clare, Tolkien, Dahl, Goldman, White — and compare the film worlds with the world created by the writer and you. Play around and create your own fantasy creatures, plots and worlds, whilst telling people what you really think about your world — then make your own fantasy zine drawing on your creations. Come if you know and love fantasy. Come if you know little and want to learn. All are welcome.

Game Theory

Do you want to use strategic games to understand the wild world of economics? The best way for you to understand why economic decisions are made is to actually be the one making choices. Our course puts you on the front line in order to get acquainted with the core concepts of economics and game theory. We will play and create games that test decision making and predictions of behavior. For example, through variations of the prisoner's dilemma we will experience the challenges of fostering cooperation. The tragedy of the commons will be understood as we act from the position of fishing vessels competing for a limited stock of fish. By tracking the events of a Settlers of Catan game we will gain insight into the forces of supply and demand, currency manipulation, and comparative advantage. This is a great course for anyone who wants to gain a taste for economics or is considering taking further economics courses at the Upper School.

Groove Workshop

Groove Workshop is a music performance workshop designed to teach students how to form and maintain a band — in other words, how to rock! Areas covered will include analysis of song form and structure, rehearsal methods, chart writing, equipment setup, and performance tips and tricks. A big part of being in a successful band is having the ability to communicate and be open to the ideas of others. Making music is a great way to create bonds and build teamwork. This class gives students that opportunity.

Nueva/Stanford Earth Science Collaboration

This elective is in partnership with Stanford's School of Earth, Energy, and Environmental Sciences and has two major components. The first component is designing, fabricating, testing, and evolving equipment used by universities and schools to demonstrate the fluid mechanics involved in global weather and oceanic phenomena including global warming. This will encompass mechanical, electrical, and software design and fabrication. The second component is an outreach program that will involve demonstrating the equipment to local schools, teaching the teachers the physics demonstrated, creation of a website detailing how to construct the equipment and how to use it, attending events like the Maker Faire and STEM fair, and lastly writing/co-authoring articles with our partners at Stanford for submission to scientific journals.

Play Production (Fall Musical)

The Play Production elective is open to all seventh and eighth graders who are participating in the fall musical (in the cast or production team). The class will serve as core rehearsal time, with students exploring various theater skills targeting the key components of acting, including voice work, stage movement, and characterization. Theater games are also played to enhance these skills and to tap into students' creativity, energy, and collaboration. Students will also work on open scenes and subtext as part of the class curriculum.

Science Rap Elective

Students produce an educational music video, integrating skills in research, lyric-writing, musical performance, visual storytelling, and videography. Parents should note that they will need to sign a media release form, as student work is going to be published on YouTube.

Steel Drum Band

Continue your musical studies in Middle School playing steel drums while learning musical styles from the Caribbean including soca, calypso, samba, and Cuban music. We will rock out as well. Our concerts will feature amazing guest artists for the whole community.

Tableau Vivant

Tableau Vivant explores a contemporary adaptation of a 19th century art form. Through a distinct three-step process, students combine canvas painting, costume/prop making and make-up, and digital photography in order to transform into the painting's figure. This requires careful study of the artwork's color, brushstrokes, light, and shadow. Costumes are fashioned from canvas and cardboard, headpieces are built with plaster, and students experiment with theater make-up to flatten themselves so that they look a part of the two-dimensional picture plane. Once completed, each student is photographed against a green screen that is professionally lit. In the last step of the process, students work to seamlessly combine their two images (canvas and photograph) using Photoshop, digitally enhancing elements of the work to match the original painting. In the first quarter we will paint on canvas; in the second we will pursue costume/prop making, stage makeup, green screen photography, and digital processes.