



Founded in 1966, The San Francisco School is a Preschool through Eighth Grade independent, coeducational day school. Our progressive approach to education encourages children to develop self-reliance, solid academic skills, integrity and a sense of social values. The school is respected for its strong academics, vibrant community, and personal attention to students. SFS graduates are academically prepared, inquisitive, compassionate, and eager for the challenges ahead.

The Preschool & Kindergarten program is inspired by the Montessori method of education, an experiential, hands-on approach to learning. The classrooms are mixed-age, involve a high level of student choice within thoughtfully prepared, developmentally appropriate activities, and place an emphasis on personal responsibility and awareness of others.

The Elementary program is thoughtfully designed to embody our mission and lay the foundation for critical academic skills in Reading & Writing, Mathematics, Social Studies, Science & Engineering, Spanish, Music & Performing Arts, Visual Arts, and Physical Education. The program is founded on the belief that children must have meaningful experiences to learn deeply. It takes into account students' developmental stages and individual learning paces, seeking to differentiate instruction wherever possible, and crafting lessons that incorporate multiple modalities as well as social-emotional learning and themes of social justice.

The Middle School program builds on the foundations laid in the Preschool & Kindergarten and Elementary programs, with age-appropriate increased academic expectations layered with the same joyous sense of learning that infuses the younger grades. Middle Schoolers take deep dives into integrated Reading & Writing and Social Studies (Humanities), Mathematics, and Science & Engineering classes, alongside Spanish, Music & Performing Arts, Visual Arts, Physical Education, a wide variety of electives, and social-emotional learning experiences through supportive advisory groups and class meetings.

As the School strives to help each student reach their potential, it works to equip students with the essential skills and qualities of life-long learners: the ability to persist when challenged, to ask and consider difficult questions, to problemsolve both independently and cooperatively, to communicate effectively, to self-reflect, and to advocate for themselves and others.

This Curriculum Guide outlines the academic program from Kindergarten through Eighth Grade. We have chosen not to include Preschool, as the focus of the 3- and 4-year-old experience is as much about social-emotional development as it is exposure to the foundational principles of academia. This guide is a snapshot of the School's ever-evolving program that documents current curriculum, but cannot fully capture the depth and breadth of the program. The School's talented master teachers continually refine the curriculum in response to the latest educational research and best practices.





MISSION STATEMENT

The San Francisco School cultivates and celebrates the intellectual, imaginative, and humanitarian promise of each student in a community that practices mutual respect, embraces diversity, and inspires a passion for learning.

EDUCATIONAL PHILOSOPHY

At The San Francisco School, we believe students learn best when the following tenets are an integral part of their experience:

- Curiosity: Students are natural explorers. We encourage students to ask
 meaningful questions and structure experiences for them to arrive at their
 own moments of discovery.
- **Challenge:** Students take great pleasure in progressing toward mastery. We cultivate learning by designing lessons with varied and increasing complexity.
- Collaboration: Students grow through working with others. We model and teach teamwork, cooperation, and problem solving across grades and disciplines.
- **Courage:** Students are empowered when they face their fears. We urge students to take risks and embrace their mistakes.
- Compassion: Students are capable of astonishing kindness and empathy.
 We inspire students to think beyond themselves and believe that their actions make a difference.



CORE SUBJECTS

The hallmark of a San Francisco School education is engaged, creative thinking with a love of challenge and a passion for humanitarianism. Students not only learn the academic subjects they study, but make connections between them in order to problem-solve, analyze, and innovate with real-world applications.



Reading & Writing

SFS develops strong writers with a passion for literature and an ease with words. Literacy begins in the earliest grades with a print- and language-rich environment. As they progress through the Elementary and Middle School years, students learn the fundamentals of reading alongside strategies for deep comprehension and critical interpretation. They read novels, short stories, non-fiction, and poetry selected from classic and contemporary literature that represents diverse voices. They use a social-cultural critical lens and literary analysis skills to examine characters and themes to make connections beyond the texts. Over time, students become writers who can hone their craft for varied audiences in a wide range of styles and genres.



Mathematics

At SFS, mathematics is a lens through which the world is examined, and therefore, students are provided meaningful and authentic contexts for mathematical work. We see math as a process that can be revised and reflected upon, using group work as an opportunity for students to collaborate, to thoughtfully evaluate their work, and to see mistakes as opportunities for growth. We value risk-taking and the willingness to stay with the unknown, therefore SFS students learn to use multiple approaches when problem-solving. The Elementary curriculum uses Contexts for Learning Mathematics, and the Middle School curriculum uses Illustrative Mathematics by Open Up Resources. The SFS program aligns with the Common Core standards for mathematics, and incorporates algebraic thinking even in the youngest grades.



Social Studies The social studies program seeks to foster critical thinking, compassion, global citizenship, and an understanding of how historical and current events shape the world. At the core of the program is a study of the people and choices that have determined the course of history, and what can be learned from them to inform one's own actions. In younger grades, social studies is approached in interdisciplinary, project-based units, using a wide variety of primary sources, age-appropriate non-fiction texts, historical fiction, and technology-based resources. In Middle School, through an integrated Humanities program, students use the study of geography, religion, achievements, politics, economics, and social structures as a lens to study the history of people in other societies as well as that of the United States.



The science and engineering curriculum is crafted from resources that aim to ignite students' curiosity and cultivate their passion for scientific experimentation. It uses hands-on laboratory experiences, simulations, games, and projects to develop skills of investigation, observation, data analysis, discussion, and experimental design. In the younger grades, science and engineering are approached in interdisciplinary, inquiry-based Project Time units. In Middle School, interactive class activities are designed to provide a foundation on which more complex scientific concepts build. As students move through the grades, their scientific explanations become more complex and their integrated use of mathematics more frequent.



Spanish

The Spanish program is designed to be a spiral curriculum, where students study recurring thematic units over the years with increasing vocabulary, complexity, and detail. Students develop oral expression and comprehension, as well as reading and writing skills. The curriculum features projects in each grade that are developed in collaboration with classroom teachers to integrate units studied in other subjects to enhance cross-curricular learning. By Middle School, Spanish class is a formal academic class and allows for differentiation for heritage and Spanish-immersion students.



Music & Performing Arts

Music classes at SFS are based on the philosophy of Orff Schulwerk, an approach to music education that seeks to involve all children in communal music making, with an emphasis on creation and play. The xylophone, metallophone, and glockenspiel are the foundational instruments all students use to experience the program. Students are also offered opportunities to learn to play additional instruments. In the Orff approach, music class includes movement, dance, poetry, drama, and regular connections to visual arts and other academic disciplines.



Visual Arts

Visual arts classes at SFS develop individual potential and social awareness, as well as foster spatial awareness, fine motor skills, a sense of aesthetics, and so much more. A wide variety of artistic approaches and media are incorporated to help students realize their artistic potential. Students focus on process over product, while still keeping an eye toward the importance of completing and refining work. Projects incorporate other curricular areas such as art history, social-emotional learning, and multicultural studies, and are infused with problem-solving skills alongside artistic techniques.



The SFS physical education program offers each student to experience joy through physical and social activity, build character through competition and conflict resolution, and develop a life-long appreciation of fitness and wellness. The curriculum allows for diverse learners to safely challenge themselves. Early grades start by building a foundation of cooperation, taking turns, problem-solving, and gross motor skills. As students progress through Middle School, they engage in increasingly complex competitive and cooperative games, team sports, physical fitness challenges, and peer coaching.





KINDERGARTEN



Reading: Identify all upper- and lower-case letters and know corresponding sound for each; identify rhyming in poems, stories, and songs; start to recognize common sight and high-frequency words; use clues to decode words; make predictions about stories; identify characters; describe a story with details; recognize fiction vs. non-fiction; begin to read using a variety of primers and nonfiction materials

Writing: Phonemic (best-guess) spelling; demonstrate understanding of some spelling conventions (sh/ch/th; -ing; silent e); use drawings, dictation, and writing to compose opinion, informational, and narrative texts; conventions of print (left-to-right; top-to-bottom; simple punctuation; one-finger spacing between words; proper pencil grip); begin writing in complete sentences; write in all uppercase letters; exposure to writing with lowercase letters

Selected Projects and Texts: I Can Read; Primary Phonics; Handwriting Without Tears; Sound of the Week books



Mathematics

Number and Operations: Count using one-to-one correspondence with objects to 20; fluently add to 10; count to 100 by ones and by tens; compare numbers (more than, less than, equal to); understand concepts of addition and subtraction and represent them through drawing; exposure to standard symbols and language (+, -, =); explain mathematical thinking and ideas

Geometry and Measurement: Compare simple 2-dimensional shapes and 3-dimensional forms; sort and compare objects according to attributes; use non-standard tools to measure various lengths; measure volume through baking tools

Data Analysis: Recognize and create patterns; simple graphing



Social Studies **Topics:** Community (classroom, school, cultural, neighborhood, parks, fire station, etc.); geography (connections, continents and oceans, fundamental needs of humans); life of Martin Luther King Jr. (social justice then and now)

Skills: Become a good friend in the classroom community; consider what neighborhoods and communities need and what makes a good neighbor/community member; understand basic mapping concepts; read and learn oral stories from around the world

Selected Projects and Texts: Birds-eye-view map of classroom, yard, and bedrooms; walking neighborhood field trips (local library, fire station, McLaren Park, etc.)



Science & Engineering **Topics:** Five senses; life cycle (butterflies, embryology of birds); water (sink and float, density); magnets; nature exploration (insects, plants, gardening); animal study (bi-annual: habitats, classification of vertebrates)

Skills: Observe; explore; hypothesize; create and read graphs; sort and classify animals, (habitat, attributes, etc.)

Selected Projects and Texts: Montessori sensorial materials; materials to smell, taste, etc.; life cycle materials using real caterpillars, eggs, etc.



Spanish

Annual Units: Latinx Heritage Month; Día de los Muertos; calendar; family; seasons, weather; animals; anatomy; numbers & colors; emotions; cultural celebrations

Special Projects and Cross-Curricular Units: Five senses; emotions; farm life; families



Music & Performing Arts Concepts and Rhythm: Expressive opposites (high/low, slow/fast, smooth/staccato, loud/soft, etc.); beat, pulse, and meter through games; movement activities; simple dances; visual notation

Voice and Instruments: Singing games; songs; basic ear-training exercises, body percussion; small percussion; hand drums; beginning mallet percussion

Movement and Drama: Creative movement exercises; simple folk dances; clapping games; acting out stories and short narrated plays



Visual Arts

Topics and Skills: Color mixing (primary and secondary); form pinch pots (slip and score); study elements of art (line, shape, color, and texture); consider concepts of "big to small" and how shapes relate to one another

Sample Projects: Coil pots; African guinea fowl; color wheels; complementary color fish prints



Motor skills; movement patterns; cooperation and teamwork; concept of spatial awareness; taking turns; practice sharing; listen to multilayer instruction



Reading: Build comprehension and stamina using "just right" books; understand story structure and retell stories; use multiple strategies to read a word (phonics, context clues, fluency); read across genres; question, connect, infer, and synthesize; develop identity as a reader

Writing: Write in multiple genres: poetry, personal narrative, fiction, formal letters, and expository pieces; use mentor texts to inspire and guide writing; understand writing process—draft, revise, and edit; use descriptive language; think about writing for an audience; basic grammar, spelling patterns, and handwriting

Selected Projects and Texts: Primary Phonics; Wood Elf series; Handwriting Without Tears; "mini memoirs"; procedural books; "All About" non-fiction books; journal writing; letters to community members; series like: Biscuit, Elephant and Piggie, Fly Guy, Henry and Mudge, Magic Tree House; and National Geographic for Kids



Mathematics

Number and Operations: Represent and solve problems involving addition and subtraction to 100; understand and apply properties of operations and the relationship between addition and subtraction; fluently add and subtract up to 20; use place value understanding and properties of operations to add and subtract two-digit numbers; explore money in relation to grouping and place value

Geometry and Measurement: Measure lengths indirectly and by iterating units of length; understand and manipulate shapes and their attributes

Data Analysis: Represent and interpret data: surveys, picture graphs



Social Studies Topics: "What makes us who we are"; social justice around identity and introduction of sizeism, sexism, and racism

Skills: How to have safe conversations about ourselves and others, developing a shared language around similarities and differences; write and create art about one's identity; consider the question, "What makes us who we are?"

Selected Projects: Create written self-portraits and supporting artwork that shows who we are at this moment in our lives



Science & Engineering Topics: Ants (community jobs, life cycles); density and buoyancy; prehistoric life (adaptation and animal classification)

Skills: Work as a community; observe; introduction to research techniques; develop expertise on a topic; deliver an oral report

Selected Projects: Functional child-sized ant colony doing different jobs and working as a team; evolution simulations; research report (written and oral) and creative fiction on a specific dinosaur



 ${\sf Spanish}$

Annual Units: All About Me; Latinx Heritage Month; Día de los Muertos; calendar; family; seasons, weather, clothes; plants & animals; school & classroom; anatomy; neighborhood places & professions; numbers & colors; emotions; children's rights; cultural celebrations

Special Projects and Cross-Curricular Units: Colors (artist: Miró); body parts (artist: Picasso); animals (artist: Frida Kahlo); silkworms (science); children like me (social justice)



Music & Performing Arts Concepts and Rhythm Skills: Beat; pulse; ostinato; drone; melody; notation for beat, pulse, rest

Voice and Instruments: Solfege; pentatonic scale; Orff Ensemble

Movement and Drama: Creative movement exercises; simple circle and partner dances; (improvisation, group lines, simple script, music, and movement)

Composition and Improvisation: Rhythmic and melodic; choreography with partners/small groups; integrating the Art

Performances: Halloween Ritual; 1st Grade Play; Spring Concert



Visual Arts

Topics and Skills: Color mixing (primary and secondary); warm and cool color study; concepts of "big to small" and how shapes relate to one another; sewing: threading a needle, running stitch, pattern making; recognizing patterns

Sample Projects: Stuffed animals; abstract art; "doodad" (found object) creatures; clay dinosaurs



Movement patterns; motor skills; hand-eye coordination development; team-building activities; juggling; underhand throwing and catching; use of supportive language



Reading: Build comprehension and stamina using "just right" books; understand story structure and retell stories; use multiple strategies to read a word (phonic, context clues, fluency); read across genres; question, connect, infer, and synthesize; develop identity as a reader

Writing: Write in multiple genres—persuasive letters, personal narrative, fiction, and expository pieces; practice writing process—draft, revise, and edit; use dialogue in writing; write in complete sentences (capitals and periods); proofread stories for correct punctuation; transition to standard spelling through regular word study

Selected Projects and Texts: Handwriting Without Tears; "All About" non-fiction bird books; "small moments" personal narratives; Owl Moon; The Leaving Morning; poetry and "I Am From" poems; persuasive letters; "Letters For Change"; series like Magic Tree House, Secrets of Droon



Mathematics

Number and Operations: Represent and solve problems involving addition and subtraction to 1000; add and subtract fluently up to 100; work with equal groups of objects to gain foundations for multiplication; understand place value up to 1,000; use place value understanding and properties of operations to add and subtract three-digit numbers; solve word problems involving money

Geometry and Measurement: Measure and estimate lengths in standard units; relate addition and subtraction to length; understand and manipulate shapes and their attributes

Data Analysis: Represent and interpret data using line plots and bar graphs



Social Studies **Topics:** Neighborhoods: change over time, issues of equity, roles of community members; history of the Portola neighborhood; geography; history of voting rights and introduction of the Constitution; relationship of neighborhood to city (San Francisco) to state (California, including capital city), branches of U.S. government; Agents of Change: activists who have changed the world

Skills: Read, navigate, and create maps; communicate how a community changes over time; read and create timelines; activism

Selected Projects and Texts: Build a model neighborhood; San Francisco's Portola; The Bay Area Through Time



Science & Engineering $\textbf{Topics:} \ \text{Simple machines (forces--push, pull, gravity, friction); local birds; animal adaptation and classification$

Skills: Build and experiment; prototype designs; develop expertise on a topic; observe bird life

Selected Projects: Build simple machines using design-thinking process; build forts incorporating examples of simple machines into construction; study one local bird in depth and compile understandings into a book; birdwatching field trips to McLaren, St. Mary's, and Golden Gate Parks



Spanish

Annual Units: About Me; Latinx Heritage Month; Día de los Muertos; calendar; family; seasons, weather, clothes; plants & animals; school & classroom; anatomy; neighborhood places & professions; numbers & colors; emotions; children's rights; cultural celebrations

Special Projects and Cross-Curricular Units: Latinx Heritage country study; Portola neighborhood (social studies); birds (science)



Music & Performing Arts Concepts and Rhythm Skills: Notation for beat, pulse, and rest; ostinato; drone; melody; modes of pentatonic scale

Voice and Instruments: Solfege; pentatonic scale; visual notations; Orff Ensemble (xylophones, metallophones, glockenspiels)

Movement and Drama: Creative movement exercises; simple circle and partner dances; (improvisation, group lines, simple script, music, and movement)

Composition and Improvisation: Rhythmic and melodic; choreography with partners/small groups

Performances: Halloween Ritual; 2nd Grade Play; Spring Concert



Visual Arts

Topics and Skills: Color mixing (primary and secondary); concepts of "big to small" and how shapes relate to one another; over-under structure of weaving; elements of art (line, shape, color, texture); composition

Sample Projects: Watercolor birds; circular weavings; clay tea cups and saucers



Competency of movement patterns; combine locomotor skills in general space with rhythm; social behavior that respects self and others; perform designed rhythmic behavior; value the role of rules in activities



Reading: Explore the use of hyperbole via tall tales; appreciate other cultures through global fairy tales; study introductory Greek mythology; investigate genres such as mystery, realistic fiction, and fantasy; interpret texts and participate in group discussions; continue to develop decoding and comprehension skills

Writing: Address an array of purposes and audiences through personal narrative, memoir, fiction, exercises in descriptive writing, research projects, poetry, and persuasive letters; write in paragraphs; vary sentence length; edit for greater clarity; bring personal voice to writing; develop manuscript and cursive handwriting to support well-formed, legible writing; further develop conventional grammar, spelling, and punctuation

Selected Projects and Texts: American Tall Tales series; Cinderella Stories from Around the World; Junior Great Books series; Beverly Cleary author study; D'Aulaires Greek Myths; Charlotte's Web; non-fiction First Californians reports



Mathematics

Number and Operations: Use place value understanding and properties of operations to perform multi-digit arithmetic; fluently add and subtract within 1000; represent and solve problems involving multiplication and division; understand properties of multiplication and the relationship between multiplication and division; multiply and divide to 100; develop understanding of fractions as numbers; gain an understanding of fraction equivalencies and comparing simple fractions

Geometry and Measurement: Solve problems involving measurement and estimation of intervals of time; understand and manipulate shapes and their attributes; understand concepts of area and perimeter

Data Analysis: Represent and interpret data using bar graphs and line plots, and examine mode and outliers of a data set



Social Studies **Topics:** First Californians—migration of people from Asia to North America; study of different aspects of native life and the use of natural resources to meet human needs; Mexico—geography, Maya and Aztec people and their significant accomplishments (evolution of writing, creation of paper and books, understanding of math, astronomy, agriculture); arrival of Spaniards and the impact of the conquistadors; folk art and music of Mexico; Benito Juarez's life and his impact on Mexico; Día de los Muertos (integrated unit with Spanish); government systems

Skills: Introductory research skills: non-fiction reading, highlighting research material; map reading and geographical feature identification (including U.S. states and capitals); in-depth culture study

Selected Projects and Texts: Ishi, the Last of his Tribe; Whispers of the First Californians; Mexico; oral and written reports; visual-aid presentations and demonstrations for families and school community



Science & Engineering **Topics:** Bay Area ecosystems—oak woodlands, wetlands, ocean, redwood forests; endangered species and recovery efforts; bird study via Bay Area bird focus; Botany—tree seeds adaptations; parts of a tree; photosynthesis

Skills: Build model wetlands and construct relief maps of the Bay Area; understand how saltwater and freshwater creatures co-exist in the Bay; identify tree species on campus and in the Portola neighborhood; learn modes of seed dispersal; paint pictures of specific trees; maintain learning logs

Selected Projects and Texts: Bay Area ecosystems open house; create a book about trees (integrated unit with Visual Arts); Science Fair projects and presentations reflecting botany studies; Wise Trees; George Washington Carver: Pop, Stick, Glide; Strange Trees



Spanish

Annual Units: All About Me; Latinx Heritage Month; Día de los Muertos; calendar; family; seasons, weather, clothes; plants & animals; school & classroom; anatomy; neighborhood places & professions; numbers & colors; emotions; children's rights; cultural celebrations

Special Projects and Cross-Curricular Units: Latinx Heritage of students, guest speakers; Mexico studies (social studies); tree project (Science); environmental protection and endangered animals; children like me (social justice)



Music & Performing Arts Concepts and Rhythm Skills: Transposition of pentatonic scale; standard notation meters (2/4, 3/4, 4/4)

Voice and Instruments: Solfege and introduction to notation; singing in Elementary Chorus; addition of soprano recorder to Orff Ensemble; instrument-making unit

Movement and Drama: More complex dances; creative movement exercises featuring Laban Effort Shapes; drama improv games

Composition and Improvisation: Integrating the arts—creation inspired by Visual Arts; recorder compositions

Performances: Halloween Ritual; 3rd Grade Play; Spring Concert



Visual Arts

Topics and Skills: Color study; tints and shades; concepts of "big to small" and how shapes relate to one another; over-under structure of weaving; scale: value introduction by working with grayscale; assigning value regardless of color

Sample Projects: Negative and positive trees; botany; clay self-portraits



Team sports and games; define, practice, and model sportsmanship; knowledge of health and physical fitness; refine and implement skills towards a strategy in competitive play; identify physical activity as a way to become healthier

Team Sports: Volleyball; basketball; lacrosse; soccer; tee-ball; kickball



Reading & Writing Mathematics Social Studies Science & Engineering

Spanish

Music &

Performing Arts

Visual Arts

Physical

Education

Reading: Transition from learning to read to reading to learn; use word solving strategies to comprehend; build reading stamina; use understanding of story structure to make inferences about the text and retell stories; interpret authors' word choices and impact on the reader; read fiction, non-fiction and poetry; determine importance and use text features to navigate information; key comprehension strategies—questions, connections, predictions, inferences, and conclusions

Writing: Inspired by the Writer's Workshop model and the Teachers College Reading and Writing Project—Develop a "writer identity;" build writing stamina by writing frequently for extended periods of time; analyze mentor texts for inspiration and professional models; understand and use the writing process—rehearse, draft, revise, edit, and publish; pursue genres that include narrative, information, opinion, and poetry; study grammar, mechanics, spelling, and vocabulary

Selected Projects and Texts: Short-story and poetry publishing; There's a Boy in the Girls' Bathroom; Mia Lee Wheeling Through Middle School; El Deafo; My Name is Brain Brian; Love That Dog; One Crazy Summer; Brown Girl Dreaming; Zia; By the Great Horned Spoon

Number and Operations: Use all four operations to solve problems; fluently add and subtract multi-digit numbers using the standard algorithm; familiarization with factors and multiples; place value understanding for multi-digit whole numbers; understand fraction equivalence and ordering; build fractions from unit fractions; understand decimal notation for fractions; compare decimal fractions

Geometry and Measurement: Solve problems involving measurement and conversion of measurements; understand the concept of angles and how to measure them; draw and identify lines and angles; classify shapes by properties of lines and angles

Data Analysis: Represent and interpret data by translating frequency graphs into value bar graphs, making inferences and depicting co-variation

Topics: Introduction of the role of historians; artifacts as history; California Gold Rush; turn-of-the-century migration to California; Gold Rush hidden figures and stories; the Chinese Immigrant Experience; connecting the past to the present; location impact on culture

Skills: : Identify primary vs. secondary sources; generate questions, determine close and open-ended questions, determine credibility of a source, note-taking from primary and secondary sources; introduction of formal research skills; draw conclusions from sources; develop historical analysis skills; identify perspective(s) of writer and seek multiple voices in history; develop map skills

Selected Projects and Texts: Historical fiction; non-fiction articles; primary source documents—photos, newspaper articles, eyewitness accounts; historical artifacts; Gold Rush Perspectives Project; selected historical excerpts; Doing History; Aki and Silvia; Inside Out and Back Again; One Crazy Summer; Esperanza Rising; Riding Freedom, Biddy Mason Speaks Up, overnight field trip to Coloma State Park

Topics: Electricity, Computer Science, and Engineering

Skills: Understand that computers and robots are mindless machines (hardware) until people code them (software); create basic computer algorithms using block programming; build a basic electrical circuit, articulate what electricity is, and describe the difference between conductive and non-conductive materials; practice persistence while debugging, model the principles of Digital Citizenship

Selected Projects and Texts: The basics of electricity, conductivity, and circuits; coding using code.org's Computer Science Fundamentals curriculum; interactive physical computing with Makey Makey

* The 4th and 5th Grade Science & Engineering curriculum is taught in tandem and alternates each year, one year focusing on the above as well as the Human Body, and the next focusing on Environmental and Physical Science

Annual Units: All About Me; Latinx Heritage Month; Día de los Muertos; calendar; family; seasons, weather, clothes; plants & animals; school & classroom; anatomy; neighborhood places & professions; numbers & colors; emotions; children's rights; cultural celebrations

cardboard Portola models; school label-making; native speaker interview; Ferdinand the Bull; poetry

Special Projects and Cross-Curricular Units: Richard Serra biography and drawing; Marshmallow Calaca; female athlete biography;

Concepts and Rhythm Skills: Polyrhythm and mixed-metered music; modal diatonic scales; notation of 6/8 rhythms, syncopation, and sixteenth notes

Voice and Instruments: Solfege; diatonic scale and modes; standard notation; elementary chorus; body percussion; recorder;

Orff Ensemble

Movement and Drama: Creative movement featuring Laban Effort Shapes; drama improv games

Composition and Improvisation: Melodic composition in modal scales; choreography; creation inspired by Visual Arts

Performance: Halloween Ritual; 4th Grade Play; Spring Concert

Topics and Skills: Color study; monochromatic and analogous; over-under structure of weaving; roll and cut slab from clay; value introduction by working with grayscale; assigning value regardless of color to show form

Sample Projects: Self-portraits using value; clay loom woven with analogous yarn; perspective chalk drawings

Introduction to physical fitness challenge; team sports and games; group communication; circuit training, paced running and building upper body strength; set goals and recognize personal growth

Team Sports: Volleyball; basketball; lacrosse; soccer; tee-ball; kickball; football; handball; tennis; futsal



Reading: Determine main ideas and salient information in fiction and non-fiction texts; summarize text effectively; use excerpts to illustrate points and derive meaning; trace and analyze character and plot development throughout a novel; generate themes from a text; identify and analyze varying authors' styles and their impact on the reader; make connections, inferences, and predictions about the text; consult reference materials, e.g., dictionary, glossary, and thesaurus

Writing: Inspired by the Writer's Workshop model and the Teachers College Reading and Writing Project—Further develop a "writer identity;" continue to build writing stamina by writing frequently for extended periods of time; analyze mentor texts for inspiration and professional models; understand and use the writing process—rehearse, draft, revise, edit, and publish, including giving and receiving feedback; further pursue genres that include narrative, information, opinion, and poetry; study grammar and mechanics; demonstrate command of the conventions of standard English—capitalization, punctuation, and spelling; use Worldly Wise for spelling and vocabulary development

Selected Projects and Texts: Memoir; persuasive writing; essays; short stories; self-led book clubs; book commercials; *Bridge to Terabithia; Walk Two Moons; P.S. Be Eleven; When You Reach Me*



Mathematics

Number and Operations: Write and interpret numerical expressions; multiply multi-digit whole numbers using the standard algorithm; perform operations with multi-digit whole numbers and decimals to the hundredths place; understand the place value system; add and subtract fractions with like and unlike denominators; use equivalent fractions as a strategy to add and subtract fractions; apply and extend previous understandings of multiplication and division to multiply and divide fractions

Geometry and Measurement: Classify two-dimensional figures into categories based on their properties; calculate volume and surface area of geometric solids

Data Analysis: Graph points on the coordinate plane to solve real-world and mathematical problems



Social Studies **Topics:** Colonial History; the Refugee Experience—Essential Questions: What challenges faced the first English colonies? How were the three colonial regions alike and different? What was the impact of slavery on Africans? What British acts angered the colonists? What is the difference between an immigrant and a refugee? What are human rights? How are refugees received and perceived?

Skills: Develop awareness and understanding of historical and current events through an anti-discriminatory lens; think critically; engage with informational texts; question; read various forms of literature and primary and secondary source materials; locate, select, and organize information from written sources; read and interpret maps, globes, graphs, pictures, and political cartoons; read for information; categorize, summarize and organize notes; organize and express ideas clearly in writing and in speaking

Selected Projects and Texts: Country Research Reports; Activist Project; Primary source documents; A History of US: Making Thirteen Colonies; A People's History of the US, A Different Mirror, Lies My History Teacher Told Me; short stories; various novels about the refugee experience; UNHCR curriculum; Teaching Tolerance



Science & Engineering Topics: The Human Body, Nutrition, Body Systems, and Biology

Skills: Model and demonstrate the structures, functions, and processes of body systems, how they work together, and how life choices, technology, and nutrition can help maintain health

Selected Projects and Texts: Design moving, visual models of body systems that demonstrate how the system functions and interacts with another system

* The 4th and 5th Grade Science & Engineering curriculum is taught in tandem and alternates each year, one year focusing on the above as well as the Electricity, Computer Science, and Engineering, and the next focusing on Environmental and Physical Science



Spanish

Annual Units: All About Me; Latinx Heritage Month; Día de los Muertos; calendar; family; seasons, weather, clothes; plants & animals; school & classroom; anatomy; neighborhood places & professions; numbers & colors; emotions; children's rights; cultural celebrations

Special Projects and Cross-Curricular Units: Making sugar skulls (collaboration with 1st Grade); animal rights project; building/labeling a cardboard house; daily routines; chores (Portola Neighborhood project); transportation; places in the city; clothes and shops; video role play project; food project; school video report



Music & Performing Arts Concepts and Rhythm Skills: Diatonic scales; harmonic shifts (I/ii, i/VII, I/V, I/IV/V); notation of 6/8 rhythms, syncopation, and sixteenth notes

Voice and Instruments: Solfege; diatonic scale and modes; standard notation; elementary chorus; recorder consort (SATB); ukulele; Orff Ensemble; percussion

Movement and Drama: Creative movement exercises featuring Laban Effort Shapes; drama improv games; shadow theater

Composition and Improvisation: Rhythmic and melodic improvisation and composition; choreography with partners/small groups, musical stop-motion animation projects

Performance: Halloween Ritual; 5th Grade Play; Spring Concert



Visual Arts

Topics and Skills: Support development of concrete thinking; small motor skill development; two- and three-dimensional expressions of the same themes; drawing; painting; printing; ceramics; mixed media; woodworking; design-thinking skills; create works of art that reflect community and cultural traditions

Sample Projects: Interdisciplinary units; self-portraits in foreshortened view; Day of the Dead sculptures; shoe drawing and ceramic unit; one-point perspective drawing, chair block printing, chair building; wooden pull toy construction



Leadership exploration; physical fitness challenge; positive social interactions and self-expression; team sports and games strategies; communication and peer coaching

Team Sports: Volleyball; basketball; lacrosse; soccer; tee-ball; ultimate frisbee; European handball; football; tennis; futsal



Reading: Build a literary community through Book Clubs: learn group work, responsibility, perspective-taking, and responsive communication; build autonomy; connect deeply to literature through developing a literary analysis toolbox; think expansively about all types of readings; set a reading goal for the year

Writing: Inspired by the Writer's Workshop model and the Teachers College Reading and Writing Project—Further develop a "writer identity;" continue to build writing stamina by writing frequently for extended periods of time; analyze mentor texts for inspiration and professional models; understand and use the writing process—rehearse, draft, revise, edit, and publish, including giving and receiving feedback; further explore genres that include narrative, information, opinion, and poetry; study grammar and mechanics; use standard English conventions—capitalization, punctuation, and spelling; use Worldly Wise for spelling and vocabulary development

Selected Projects and Texts: Cookbook project; literary analysis; TED Talk essay and presentation; hero short story inspired by lower school buddy; poetry work; *The Circuit; Seedfolks*; Group Social Issues book club choices about the Chinese Cultural Revolution; Personal Social Issues book club choices of coming-of-age novels



Mathematics

Number and Operations: Understand ratio concepts and solve problems involving ratios, rates, and percentages; use efficient algorithms to add, subtract, multiply, and divide multi-digit whole numbers and decimals; develop conceptual understanding and procedural fluency with fraction division; understand rational numbers in context

Geometry and Measurement: Solve problems involving area, surface area, and volume

Data Analysis: Describe and summarize numerical data sets

Expressions and Equations: Read, write, and evaluate algebraic expressions



Social Studies **Topics:** Human rights and food justice; identity and community; geography and the tie to culture; civilization building in China and Mesopotamia; Ancient Greece; Ancient Egypt

Skills: Evaluate sources; corroborate ideas with evidence; develop close reading and evidence-based writing skills; analyze primary sources; read, navigate, and develop maps; use research and source citation fundamentals

Selected Projects and Texts: Greek myths; *Angel Island: Gateway to Gold Mountain* (Chinese poetry translated); Book Club on Group Social Issues related to China; TED Talks; Proteus research project based on the UN Sustainable Development Goals and presentation; design your own country map; non-fiction articles, primary source documents, and *History Alive*

Topics: Magnetism and electricity; weather and climate; earth's structure and plate tectonics



Science & Engineering **Skills:** Ask scientific questions; plan and carry out experiments; engage in an argument from evidence; develop and use models; construct explanations; evaluate and communicate information; analyze and interpret data; use mathematics and computational thinking; design, test, and evaluate engineering solutions

Selected Projects: Design and conduct magnet investigations; construct and troubleshoot circuits; build and optimize an electromagnet; dissect an electric motor; apply understanding to insulate a model house; write and deliver a TV-style weather report; apply the design process to prototype a solution that reduces human impact on the environment; model volcano eruptions to investigate relationships between viscosity, temperature, and lava flow rates; apply the design process to build and test a structure that can withstand an earthquake



Spanish

Topics and Skills: Skill development in speaking, listening, reading, and writing (as outlined in American Council on the Teaching of Foreign Languages guidelines) on daily life topics (guided by California World Language Content Standards): greetings and introductions; describing self and interests; hobbies and free time activities; school, schedule, and classes; family and friends; cultural celebrations; country studies.

Selected Themes and Projects: Review of calendar, numbers, weather, colors, parts of the body; emotions; Spanish-speaking country geography; Día de los Muertos candle dedication project; field trip to Mission Cultural Center for Latino Arts for altar exhibit and tour of Balmy Alley murals; International Women's Day biography; Manos de Mujeres song project; Skylark camping vocabulary; Proteus project abstract



Music & Performing Arts Theme and Units: Music as Culture—musical games from around the world; Andean music; Music of the Silk Road; Introduction to ethnomusicology/instrument classification, West African music, Folk dances from Europe, Brazilian Samba

Concepts: Pentatonic, hexatonic, and diatonic scales; modal and non-western scales; fixed drone harmony to chord progressions

Instruments: Recorder ensemble; Orff Ensemble; drums; non-Western instruments, e.g., Andean tarkas and bombo, Chinese percussion, Japanese Koto, Korean drum, Thai xylophone, Indonesian angklung, Ghanaian xylophone, Spanish square drum

Dance and Drama: Traditional cultural dances; creative dance; choreography exercises; children's folktale theater

Composition and Improvisation: Arrangement of melodies, chants and poems; composition inspired by Visual Arts

Performance: Assemblies; Middle School Spring Concert



Visual Arts

Topics and Skills: Multi-tiered, student-centered art units; drawing; painting; printing; ceramics; mixed media; building with wood; design-thinking skills; create works of art that reflect community and cultural traditions while allowing students to explore the practice of a creative process

Sample Projects: Interdisciplinary units; self-portrait pencil study and abstract variation on the theme; two-point perspective drawing; line-study drawing; abstract color mixing painting; ceramic construction; hand-built bowl ceramic bowls; book cover project



Introduction of sport fundamentals and rules; practice tasks and small sided games; hand/eye coordination including throwing and catching; fitness—understand various muscle groups, quarterly test run; collaboration and sportsmanship; positive contributions towards others



Reading: Analyze novels, short stories, and poetry; utilize literary and poetic devices, including figurative language and theme analysis; Explore genres and apply a social-cultural critical lens to independent reading choices; make connections between history and literature; use Wordly Wise for vocabulary development

Writing: Inspired by the Writer's Workshop model and the Teachers College Reading and Writing Project—foster a "writer identity;" continue to build greater writing stamina by writing frequently for extended periods of time; utilize elements of literature and figurative language; further develop paragraph building and expository/analytical essay writing; use literary devices; gain independence in use of the writing process—rehearse, draft, revise, edit, and publish, including thesis development and giving and receiving feedback; complete personal narrative, literary, and poetry analysis essays; use standard English conventions—capitalization, punctuation, and spelling; use Worldly Wise for spelling and vocabulary development

Selected Projects and Texts: Medieval poetry; novels: Between Shades of Gray, When the Emperor Was Divine, Shooting Kabul, Haroun and the Sea of Stories; multicultural short story and poetry collection; exploring theme of memory in Between Shades of Gray and When the Emperor Was Divine; original photographs and short stories inspired by Shooting Kabul; literary response essay for Haroun and the Sea of Stories; "This I Believe" essay and video project; independent reading literary reviews and book talks; writing portfolio

Ratios and Proportional Relationships: Analyze proportional relationships and percentages

The Number System: Add, subtract, multiply, and divide rational numbers

Mathematics

Expressions and Equations: Evaluate expressions with integer exponents; define, evaluate, and compare functions; analyze and solve problems using numerical and algebraic expressions and linear equations

Geometry: Draw, construct, and describe geometric figures, and describe the relationships between them; explore properties of congruence and similarity; solve problems involving angle measure, area, surface area, and volume

Statistics and Probability: Draw inferences about one or more populations using random samples; develop, use, and evaluate probability models



Social Studies Topics: Legacy of the Roman Empire to Enlightenment thinkers with unit studies on daily life and religious tolerance in Islamic Spain; world religions; medieval Europe, feudalism, feudal Japan, African Empires, and Islam; Afghanistan: geography, history, and peoples

Skills: Source evaluation; corroboration; historical thinking; close reading skills; identifying patterns; analyzing primary sources; map reading and historical analysis skills; conducting research, gathering data, analyzing data; evidence-based writing; MLA citations; expository writing responding to history essential questions

Selected Projects and Texts: Medieval Creatures research and film project; Medieval structures design and models; feudalism simulation; map skills (Middle East, Medieval Europe, Afghanistan, World, five themes of geography; understanding inequality via geography); non-fiction articles and primary source documents; Medieval History to Modern Times; research and evidence-based writing and presentations; historical texts via Stanford History Education Program and History Alive

Topics: Life Science—cells, tissues, organs, systems, organisms, populations, ecosystems, and biomes



Science & Engineering Skills: Identify biotic and abiotic factors; collect quantitative and qualitative data to demonstrate understanding of the effects of abiotic and biotic factors on ecosystem health; identify and describe cells; describe and calculate the amount of available energy at various trophic levels; organize and analyze food chains and food webs; demonstrate how matter cycles through ecosystems; analyze the role of race and socioeconomic status in the case of Henrietta Lacks; understand cell theory, cell organelles, and the difference between plant versus animal cells; design and conduct experiments using the scientific method; identify and properly use lab equipment; use the engineering design process to design and test prototypes; develop robotics skills using a drop-and-drag application

Selected Projects: 3D cell model; create a mini-biome; compounds lab demonstrating understanding of organic compounds; introductory robotics unit



Spanish

Topics and Skills: Build oral and literacy skills on daily life topics at increasing complexity; greetings and introductions; self and interests; hobbies and free time activities; school, schedule, and classes; daily routine; family and friends; cultural celebrations; country studies

Selected Themes and Projects: Food and health; travel and vacation; around the community; multi-class interactive video presentations on FlipGrid (mi rutina diaria, mis comidas, etc.); Latinx Heritage Month biography project, Día de los Muertos unit with TPRS novel Tumba; MasterChef del Mundo Hispanohablante cooking project; collaboration with Humanities medieval Spain unit, La Alhambra y Poesía



Music & Performing Arts Theme and Units: Music as History, Music as Art—Carl Orff and medieval music; Spain of the three cultures; Renaissance dances of court and street; Baroque musical forms; Mozart/Haydn/Beethoven; Romantic/Nationalist/Impressionist music; composer biographies; pop music "a capella project;" Les Ballets Russe; contemporary music techniques

Concepts: Elements of rhythm, pitch, timbre, dynamic, tempo, form; major, minor and modal scales; ground bass patterns; melodic sequences; functional harmony (I, IV, V); Medieval instruments and iconography; Renaissance dance

Instruments and Dance: SATB recorders; Orff Ensemble (mallet percussion); Renaissance stringed Instruments; historic dances from Medieval, Renaissance Baroque, and Classical periods

Composition and Improvisation: "Scary" music composition; one-minute silent film soundtracks; a capella project; stop-motion animation to music; choreography to classical music

Performance: Assemblies; Middle School Spring Concert



Visual Arts

Topics and Skills: Abstract thinking skills; apply sustained effort to longer-term projects; drawing; painting; printing; ceramics; mixed media; woodworking; visual storytelling; design-thinking skills; work that reflect community and cultural traditions

Sample Projects:Interdisciplinary maker units; narrative self-portraits; acrylic painting; color theory studies; ceramic vessels and sculpture



Practice sport unit fundamentals; understanding strategy of sport; small sided competition with defense; fitness—reaction, speed, and agility exercises, quarterly test run; teamwork—how one's output affects others



Mathematics

Reading: Further utilize literary and poetic device; develop multicultural perspectives through fiction; connect historical events with literature; analyze gender identity and social norms in literature; interpret Shakespearean language; use drama as a conduit of the human experience; complete Classical Roots Study for vocabulary development; grammar in context

Writing: Utilize elements of literature and figurative language; further develop paragraph building and expository/analytical essay writing; use literary devices; continue use of writing process, including outline work and thesis development; follow a writing rubric to assess one's work and writing goals; complete personal narrative essays; analyze and write poetry

Selected Projects and Texts: Absolutely True Diary of a Part-Time Indian; The Pearl; Tomboy; A Young People's History of the United States; Shakespeare play (varies annually); To Kill a Mockingbird; Just Mercy; poetry and short fiction readers; literary analysis; expository and personal reflection essays; poetry project including open mic participation

The Number System: Approximate irrational numbers

Expressions and Equations: Work with radicals and integer exponents; understand the connection between proportional relationships, lines, and linear equations; analyze, graph, and solve linear equations and pairs of simultaneous linear equations

Functions: Define, evaluate, and compare functions; use functions to model relationships between quantities

Geometry: Explore congruence and similarity; understand and apply the Pythagorean Theorem; solve problems involving volume of cylinders, cones, and spheres

Statistics and Probability: Investigate patterns of association in data with two variables

Polynomials: Add, subtract, and multiply polynomials; factor polynomials; analyze, graph, and write quadratic expressions and equations



Social Studies Topics: U.S. history: indigenous peoples to the Industrial Revolution; focus on various civil rights movements

Skills: Source evaluation; corroboration; MLA citation format; critically analyze history; close reading skills; evidence-based writing; analyze primary sources; map reading and historical analysis skills; identify perspective(s) of writer and missing voices; consider questions of identity, race, gender, sexuality, and other experiences when evaluating social power

Selected Projects and Texts: Howard Zinn's A Young People's History; Joy Hakim's A History of US; analysis of primary source documents; research project on Western Expansion; economic simulation project (Cost of Living); building own nation and constitution group project; graphic memoir project



Science & Engineering Topics: Physical Science: matter, elements, atoms, molecules, compounds, basic chemistry, molarity, Newton's Laws of motion, speed, acceleration, velocity, distance, displacement, vectors, scalars, and force (balanced and unbalanced); robotics

Skills: Write quantitative data in standard form and scientific notation; further robotics skills using a drop-and-drag application; explore the properties and behavior of matter; write chemical formulas, name chemical compounds, and balance chemical equations; understand the principles of speed, acceleration, velocity, and Newton's Laws of Motion; analyze the role of race, education, and socioeconomic status in selecting research subjects in the Tuskegee Experiment; measure mass using the electronic balance and triple beam balance; calculate density; continue to apply the Scientific Method to solve problems; further engagement with the Engineering Design Process

Selected Projects: Robotics design; 3D atoms; design mousetrap cars; physics of roller coasters engineering design project; robotics challenge; Tuskegee Experiment study; visit to Tuskegee University and the Legacy Museum



Spanish

Topics and Skills: Build oral and literacy skills on daily life topics at increasing complexity; greetings and introductions; self and interests; hobbies and free time activities; school, schedule, and classes; daily routine; family and friends; cultural celebrations; country studies

Selected Themes and Projects: Shopping; home and neighborhood; media and technology; multi-class interactive video presentations on FlipGrid (mi verano, mi rutina diaria, diferencias entre mis padres y yo en la escuela, etc.); Día de los Muertos collaborative project with Humanities: dedication to a Change Maker; selected beginner novels (TPRS): La Llorona, La Jardinera, La Guerra Sucia, Vida y Muerte en la Mara Salvatrucha, La Hija de Sastre



Music & Performing Arts Theme and Units: Jazz, improvisation, and social justice - West African roots; ragtime; 12-bar blues; jazz standards; swing band tunes; Latin jazz; jazz rock

Concepts: Jazz forms (12-bar blues, AABA jazz standards and other forms); rhythms (offbeat, syncopation, swing, Latin/jazz and bossa nova rhythms); melody (blues scales); jazz phrasing; harmony (7th chords, upper extensions); jazz history from 1900 to 1950; key jazz musicians and composers (including Scott Joplin, Jelly Roll Morton, Louis Armstrong, Duke Ellington, Ella Fitzgerald, Billie Holiday); jazz's role in culture and shifting challenges in changing racial climate; history of musical theater; women in jazz

Instruments and Dance: Orff Ensemble; marimba and vibraphone; drum set; bass, piano, band instruments; swing dance; Lindy Hop; silent movie skits; creative movement exercises

Composition and Improvisation: Improvisation over jazz harmonic changes, composition for drama; choreography in small groups Performance: Assemblies; Middle School Spring Concert; Mummer's Play—St. George and the Dragon; 8th Grade Play



Visual Arts

Topics and Skills: Growth and identity formation in units that combine writing reflection and visual expression; discussions and observations on contemporary artists; drawing; painting; print making; ceramics; mixed media; woodworking; design-thinking skills; work that reflects community and cultural traditions, and student development of personal voice

Sample Projects: Interdisciplinary maker units; ceramic vases, sculpture; paper; self-portraits; altered book art; mixed media memory collage; building and art techniques for roller coaster project



Demonstration of sport unit fundamentals; knowledge of sport unit rules; small and full sided competition; fitness—high intensity interval training, body weight lift, quarterly test run; teamwork and leadership

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