



KHAN LAB SCHOOL

Lower School Curriculum Guide

2026-27

Lower School (Grades TK-5)

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Mission and Vision

School Model

As a lab school, KLS grounds its programmatic choices in educational best practices and research on how students learn. We continuously assess our practices and outcomes, and consider feedback from students, families, faculty, and staff on how to improve our model and contribute to the broader education field.

Khan Lab School operates on core beliefs that create a learner-centered environment: mastery learning, personalized pacing with high expectations, learning that extends beyond the traditional classroom, the use of online tools, the combination of skill development with content knowledge, and deeper experiential learning opportunities.

As a lab school, our programmatic choices are grounded in educational best practices and learning science. We continuously assess our practices, outcomes, and stakeholder feedback to improve our model and contribute to the broader education field.

Khan Lab School operates on core beliefs that create a learner-centered environment: mastery learning, learning without time or space constraints, personalized pacing with high expectations, leveraging online tools, combining skill development with content knowledge, and providing deeper experiential learning opportunities.

Our Founding Vision

Our founding vision has guided KLS since its inception. In 2024, as part of our 10th anniversary, we completed a comprehensive process of refining and updating this vision to reflect a decade of experience and the evolving educational landscape. The principles below remain central to our philosophy and chart our course for the next decade. These beliefs describe the school we are committed to being. Families can expect to see them reflected throughout the KLS program. The following outlines our founding vision, which has guided Khan Lab School since its inception. As we celebrated our 10th anniversary in 2024, we completed a comprehensive process of refining and updating this vision. The principles outlined here remain central to our philosophy, and we have enhanced them to reflect our decade of experience and the evolving educational landscape. This updated version incorporates new insights and aspirations to chart our course for the next decade of innovative education.

KLS is:

- **Learner-centered** – Students take ownership of their learning in a supportive environment where teacher-guides foster independence through motivation, active engagement, and personalized guidance.
- **Mastery-based** – Students have ongoing opportunities to close gaps and demonstrate mastery, ensuring strong foundations and encouraging lifelong learning.
- **Self-paced** – Students have opportunities to progress at their own pace—accelerating, revisiting, or reinforcing learning as needed—within a framework of ambitious expectations and targeted support.
- **Content-rich and skill-driven** – KLS values both deep content knowledge and essential 21st-century skills like critical thinking, collaboration, and communication.
- **Rooted in well-being and purpose** – Social-emotional well-being, personal responsibility, and passion-driven learning are central to helping students grow into purposeful, resilient individuals.
- **Collaborative and student-led** – Teachers and students learn from and teach one another, with students regularly stepping into leadership and peer-teaching roles.
- **Flexible and real-world aligned** – Learning happens beyond the classroom through outdoor, community-based, or self-directed experiences that reflect real-world learning.
- **Advancement-ready** – Students have opportunities to engage in accelerated or college-level work as readiness allows.
- **Tech-enabled, experience-rich** – Online tools support core skill development and free time for experiential, hands-on, and interdisciplinary learning.
- **Essential by design** – KLS focuses on essential content and flexible exploration, helping students build a strong foundation while pursuing personal interests.
- **Affordable and replicable** – By focusing on academic mastery, character development, and student passions, KLS offers a high-quality, cost-efficient educational model.
- **Open-minded and critically engaged** – KLS nurtures independent thinkers by welcoming diverse perspectives and encouraging respectful exploration of complex ideas.

Reference: [KLS Vision 10th Anniversary Update](#)

Our Approach to Learning and Teaching

Our approach to learning, teaching, assessment, and school-wide decisions are all grounded in our school's mission and vision.

Laboratory Model

As a lab school, our programmatic choices are grounded in educational best practices and learning science. We continuously assess our practices, outcomes, and stakeholder feedback to improve our model and contribute to the broader education field.

Khan Lab School operates on core beliefs that create a learner-centered environment: mastery learning, learning without time or space constraints, personalized pacing with high expectations, leveraging online tools, combining skill development with content knowledge, and providing deeper experiential learning opportunities.

At Khan Lab School, having a clear and shared understanding of mastery is essential to our educational approach. The following definition guides how we assess student learning and determines when students are ready to advance in their educational journey.

Definition: At Khan Lab School, mastery learning means that a student has developed a sufficient and reliable understanding of key concepts and skills, and can apply them independently, accurately, and consistently in complex contexts.

To determine mastery, we look at four key indicators:

- **Proficiency:** How well a student demonstrates accurate, meaningful understanding of the targeted learning outcome
- **Independence:** How much support or prompting a student needs to apply their learning
- **Consistency:** How reliably a student demonstrates their understanding over time and across multiple opportunities
- **Contextuality:** How well a student applies their understanding across different familiar situations, and occasionally in novel or complex ones

Achieving mastery signals readiness to build on existing knowledge, *not* perfection or advanced performance. This is distinct from the overall **Mastery** designation awarded at the end of a course for Middle and Upper School students. More information about the KLS academic program is included in the Lower, Middle, and Upper School Academic Handbook.

Student Agency

We believe in creating an environment for students to develop their ability to take action, assume responsibility for their behavior in a safe learning environment, and apply all this in unfamiliar situations. To support the development of student agency, students learn how to set meaningful goals and hold themselves accountable for their learning and development. Students own their learning and have a voice in their school experience. Student leadership regularly collaborates with administration on school-wide policies and events, attending conferences alongside teachers, participating in professional development opportunities, and co-designing experiences for their classmates.

Role of Khan Academy in the Lower School

At Khan Lab School, Khan Academy supports our mastery-based, student-centered approach to learning by providing personalized instruction that meets students where they are. Its data-driven platform empowers teachers with real-time analytics and instructional insights. In the Lower School, we are highly intentional about how and when technology is used with our elementary-age students. We use online tools when they offer something that teacher-guided instruction and peer-to-peer learning alone can't provide, and never as a replacement for our teachers or the community of the classroom. Khan Academy is used in ways that are age-appropriate and content-appropriate, with specific use cases that reflect the distinct needs of each grade level and subject area.

Khan Academy Kids

Khan Academy Kids is used as supplemental math and ELA practice for our students in Transitional Kindergarten through 1st grade. Designed for young learners, the app reinforces early literacy and numeracy skills through games, stories, and interactive activities. It complements, rather than replaces, the hands-on, teacher-led learning at the heart of our early elementary program.

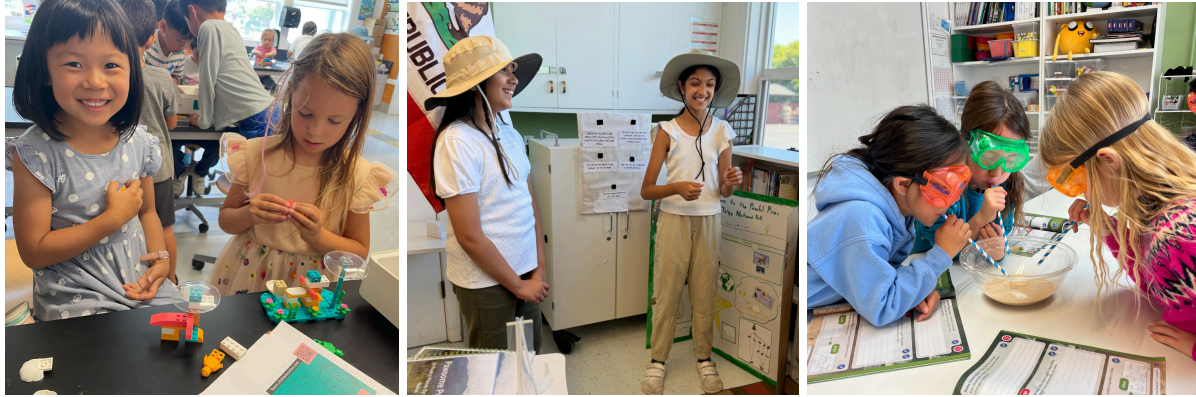
Khan Academy Math

Khan Academy is used as a supplemental tool in math for students working on 2nd grade content and above. Students spend about one fifth of their math time on the platform, where they are introduced to new topics, practice and reinforce skills, and demonstrate mastery through assessments. This targeted, individualized work frees up class time for even richer mathematical discussion and problem solving together.

Khanmigo

Khanmigo is Khan Academy's AI-powered tutor, designed to guide students toward understanding rather than simply giving them answers. In math, it is one of many tools students can use to get help, asking questions and working through problems step by step when they are stuck. In 3rd grade and above ELA classes, Khanmigo serves as a peer editor, a brainstorming partner, and a way for students to practice ELA skills, as well as a thinking partner as students prepare to discuss the texts they are reading. Teachers are able to see students' interactions with Khanmigo, which keeps its use transparent and gives teachers insight into how students are approaching their work.

Lower School Course Descriptions (Grades TK-5)



Transitional Kindergarten

Transitional Kindergarten at Khan Lab School is a bridge between preschool and Kindergarten. It is a time for building confidence and independence, developing friendships, and growing early academic and personal, social and emotional skills in preparation for Kindergarten. Our program is designed to support all areas of age-appropriate development, while honoring each child's unique needs and growth pace. Early academic skills are woven in an interdisciplinary way through play, exploration and following students' curiosities and capacities.

English Language Arts

Transitional Kindergarten

Transitional Kindergarten students will participate in the age-appropriate reading-readiness curriculum *Happily Ever After*. Through classic children's literature, the curriculum will strengthen oral language and vocabulary, develop listening skills, encourage following directions, and support fine-motor development. Children will gain meaningful exposure to print concepts, book awareness, and letter recognition while engaging in enjoyable, hands-on activities. This enchanting curriculum will provide a strong foundation for students as they begin their journey in English Language Arts.

Kindergarten

Students engage in a yearlong literacy program organized around four content-based modules: Toys and Play, Weather Wonders, Trees Are Alive, and Enjoying and Appreciating Trees. Throughout the year, students build reading, writing, speaking, and listening skills while learning about science and their community. They begin by developing classroom collaboration skills and exploring toys, sharing opinions, interviewing classmates, and creating informational writing with drawings. They then study weather by reading informational and narrative texts, tracking weather observations, and writing their own imaginative weather stories. In the third module, students investigate living and nonliving things, focusing on trees and how animals depend on them, conducting simple research and creating informational collages. In the final module, they apply their knowledge of trees to understand how trees benefit people and communities, read literature and informational texts about appreciation and conservation, and write opinion pieces such as tree appreciation cards. Across all modules, students practice asking and answering questions about texts, identifying key details, comparing characters, participating in discussions, conducting shared research, and producing opinion, informative, and narrative writing with drawing and dictation. Alongside this content-based learning, they receive daily foundational skills instruction in letter recognition, phonics, spelling, sentence formation, capitalization, punctuation, and speaking clearly, building the early literacy skills necessary for independent reading and writing.

First Grade

This course develops students' literacy skills through four thematic modules that integrate literary study, informational texts, scientific inquiry, and meaningful community connections. Students engage with rich read-alouds and shared texts such as *The Most Magnificent Thing*, *Kitten's First Full Moon*, *Feathers: Not Just for Flying*, and *City Hawk: The Story of Pale Male* while building foundational skills in reading comprehension, vocabulary, writing, speaking, and listening aligned to the Common Core standards. Instruction emphasizes explicit teaching of reading and writing skills, guiding students to compose informative, narrative, and opinion pieces through research, discussion, drawing, drafting, revision, and reflection. Across units focused on tools and work, the sun, moon, and stars, birds' physical features, and caring for birds, students strengthen habits of character such as collaboration, perseverance, initiative, and responsibility. Each module culminates in an authentic performance task; such as creating a classroom tool, composing and revising a narrative poem, developing an expert bird research riddle, or designing a "Feathered Friend Saver" allowing students to apply their learning through projects that integrate literacy, science, creativity, and civic contribution. Throughout the year, students build confidence, independence, and a strong foundation as thoughtful readers, writers, and learners.

Second Grade

This course helps students grow as confident readers, writers, and communicators. Students read grade-level literary and informational texts with increasing accuracy and fluency, using context clues and self-correction strategies to strengthen comprehension. They recount stories, describe

characters and key events, and identify central messages. Vocabulary and language skills are developed through word study, text features, illustrations, and context clues. Students write opinion, informative, and narrative pieces using the full writing process—planning, drafting, revising, editing, and publishing. Grammar and conventions, including capitalization, punctuation, spelling patterns, apostrophes, and commas, are applied to communicate ideas clearly. Through structured discussions, partner work, and presentations, students practice expressing ideas clearly, listening actively, and collaborating respectfully. The course builds strong literacy foundations while nurturing curiosity, creativity, and confidence.

Third Grade

This course develops students' literacy skills through thematic units that combine literary study, nonfiction inquiry, and creative expression. Students engage with texts such as *Peter Pan*, *One Well*, *Love That Dog*, and *Animal Behavior/Animal Defenses* while strengthening reading comprehension, analysis, vocabulary, and language conventions. Instruction balances skill mastery with student voice, guiding learners to write narrative, informative, and opinion pieces through planning, revision, and reflection. Classroom discussions, Socratic seminars, and collaborative projects encourage students to think critically, listen actively, and build on one another's ideas. Each unit culminates in a performance task that allows students to apply their learning through meaningful projects that integrate research, writing, and artistic expression. Across the year, students develop confidence, independence, and a growing sense of ownership over their learning as readers and writers.

Fourth Grade

This course encourages students to discover and develop their unique voices while preparing them for success in an academic environment. Students will learn how to express themselves and, importantly, convey ideas, understanding, and evidence-based reasoning through writing. The year begins with an introduction to narrative and informational writing, including personal narratives and short research projects. As the course progresses, students will explore persuasive writing and historical or informational texts. Throughout the year, students will enhance their skills by engaging in diverse research methods, collaborative discussions, and various writing assignments to achieve mastery. A structured grammar and language course allows students to progress from sentence-level skills to more complex writing structures, fostering personal understanding and skill development. Focusing on a variety of texts that connect to the English Language Arts curriculum and build comprehension, vocabulary, and writing skills. This interdisciplinary approach aims to create a comprehensive, cross-curricular learning experience.

Fifth Grade

This course is organized into five thematic units that span the school year and build students' reading, writing, and analytical skills. The year begins with Fairytales and Fables, using works by the Grimm Brothers, Aesop, and Hans Christian Andersen, with a focus on narrative writing, characterization, plot, sensory details, and conflict and resolution. To complete this unit, students will author their own fairy tales. The second unit of the year is focused on The Odyssey. Students will explore heroism, Greek myths, and the lasting effects of the stories of ancient Greece through compare-and-contrast writing. The unit culminates in a production of staged scenes from a children's play of The Odyssey. The Hidden Figures unit emphasizes expository writing and research as students examine real-world achievements and create a children's book which explains the cultural significance of constellations, and rename a constellation after a "hero" of space exploration . Next, during the Holes unit, students engage in literary analysis and socratic discussion about the novel's symbolism, structure, and character development. Students will then demonstrate their understanding through artistic representations of a meaningful symbol from the novel, accompanied by an artist statement.

Social Studies

Social studies is embedded in the English Language Arts curriculum for Kindergarten and First Grade.

Second Grade

In this course students learn an introductory survey of the social sciences. Through reading, discussion, and activities, students explore the foundational concepts of anthropology, geography, economics and history. The course also helps students understand citizenship, community responsibility, and how individuals can make a difference. Students also strengthen their reading, discussion, and critical thinking skills as they connect concepts they learn to their own lives.

Third Grade

This course develops students' understanding of geography, history, civics, and economics through an inquiry-based approach. Students learn to ask compelling questions, examine sources, analyze evidence, and communicate conclusions while exploring California's geography, American Indian nations, early explorers and settlement, community history, economic systems, and government structures. Through map work, timelines, research, discussion, and project-based performance tasks, students investigate how people adapt to their environments, how communities change over time, and how citizens participate in civic life. Across the year, students build critical thinking skills and a growing sense of responsibility as informed and engaged members of their communities.

Fourth Grade

In this course, students explore the rich history and geography of California, from its earliest communities to the modern state. Through Studies Weekly, students investigate historical events, people, and cultures using maps, primary sources, and engaging questions. They examine the land and people of California, the Spanish mission and Mexican rancho periods, the Gold Rush, the path to statehood, and the state's growth into an agricultural and industrial leader. Students also analyze how immigration, industry, social movements, and major events shaped California's communities, economy, and culture, developing skills in inquiry, critical thinking, and historical understanding along the way.

Fifth Grade

This course explores North American history from pre-Columbian societies through the era of Westward Expansion. Students begin by examining the vibrant and diverse Indigenous civilizations that thrived long before European contact, studying how different nations adapted to their environments and used available resources to shape distinct cultures and communities. The course then investigates the motivations behind exploration and the global consequences of contact between 1492 and 1607. Students analyze the push-and-pull factors that encouraged colonization, the role of charter companies, and the rights granted to settlers under colonial charters, while also exploring colonial government structures, mercantilism, and daily life. As the course progresses, students examine the impact of the French and Indian War and how its aftermath fueled growing colonial demands for self-rule, ultimately leading to revolution and the creation of the Constitution. The course concludes by considering the early republic's continued westward growth and its ongoing, often tense relationships with sovereign Native American nations.

Math

Below is a description of the math courses offered in the Lower School. Course titles reflect the grade-level standards covered, not the age or grade of the students enrolled. Students who meet the prerequisites and demonstrate readiness may enroll in any math course. Placement is determined primarily by written math assessments and may also be informed by teacher observations, prior classwork, and/or alternative assessments.

Transitional Kindergarten

In TK children learn mathematics by exploring quantities, shapes, patterns, space, and measurement during meaningful play. Teachers intentionally add mathematical vocabulary and questions to children's activities so they can explain their thinking and apply math to real-life

situations. As a practice, math is connected to real situations, for example, calendar, cooking projects, snack, attendance, cleanup, gardening, and classroom routines are all opportunities for mathematics.

Kindergarten

Math K is an inquiry-driven, discussion-based course aligned to Kindergarten mathematics content and organized around coherent sequences of problem-based tasks. Students build a strong foundation in numbers by representing, counting, and comparing whole numbers, initially through hands-on work with objects and visual models, with significant time devoted to developing deep number sense. The course develops meaning for addition and subtraction through real-world problem situations such as adding to, taking from, putting together, taking apart, and comparing, emphasizing understanding over memorization. Students compose and decompose numbers within 10 and represent their thinking using drawings, objects, numbers, and equations. In addition, students describe and analyze two- and three-dimensional shapes and use positional language to reason about space. Throughout the course, students explain their thinking, listen to the strategies of others, and use concrete materials and visual representations to build strong mathematical understanding and practices.

Grade 1

Prerequisites: Math K and first-grade level reading and writing skills

Math 1 is an inquiry-driven, discussion-based course aligned to Grade 1 mathematics content and organized around coherent sequences of problem-based tasks. Students develop a deep understanding of addition and subtraction and build efficient, flexible strategies for solving problems within 20, grounded in meaningful problem types such as adding to, taking from, putting together, taking apart, and comparing. The course strengthens students' understanding of whole-number relationships and place value as they work with tens and ones, laying the foundation for the base-ten system. Students also develop an understanding of linear measurement by measuring and comparing lengths through the iteration of length units. In geometry, students reason about attributes of shapes and compose and decompose two- and three-dimensional figures. Throughout the course, students explain their thinking, listen to the strategies of others, and use concrete materials, drawings, and equations to build strong mathematical understanding and practices.

Grade 2

Prerequisites: Math K-1 and second-grade level reading and writing skills

Math 2 is an inquiry-driven, discussion-based course aligned to Grade 2 mathematics content and structured around coherent sequences of problem-based tasks. Students deepen their understanding of place value through the hundreds, develop fluency with addition and subtraction of three-digit numbers, and apply these skills to solve one- and two-step word problems. The course builds strategies for composing and decomposing numbers, introduces

foundational ideas of multiplication through equal groups, and develops reasoning about measurement, time, and money. Students also strengthen geometric thinking by describing and analyzing shapes and engage in data analysis through the interpretation of simple graphs. Throughout the course, students reason mathematically and use multiple representations, such as number lines, arrays, and equations, to build strong mathematical understanding and practices.

Grade 3

Prerequisites: Math K-2 and third-grade level reading and writing skills

Math 3 is an inquiry-driven, discussion-based course aligned to Grade 3 mathematics content and organized around coherent sequences of problem-based tasks. Students develop a deep understanding of multiplication and division and build efficient, flexible strategies for solving problems within 100, grounded in meaningful problem situations and representations. The course introduces fractions as numbers, with a strong emphasis on unit fractions, as students reason about equal parts and represent fractions on number lines and area models. Students explore the structure of rectangular arrays to understand multiplication and connect this work to the concept of area. In geometry, students describe and analyze two-dimensional shapes by examining their attributes and recognizing shared features. Throughout the course, students explain their thinking, compare strategies, and use models such as arrays, area diagrams, number lines, and equations to build strong mathematical understanding and practices.

Grade 4

Prerequisites: Math K-3 and fourth-grade level reading and writing skills

Math 4 is an inquiry-driven, discussion-based course aligned to Grade 4 mathematics content and organized around coherent sequences of problem-based tasks. Students develop understanding and fluency with multi-digit multiplication and deepen their understanding of division as they find quotients involving multi-digit dividends. The course builds strong reasoning about fractions, including fraction equivalence, addition and subtraction of fractions with like denominators, and multiplication of fractions by whole numbers, with an emphasis on visual models and number lines to support conceptual understanding. In geometry, students analyze and classify figures based on their properties, such as parallel and perpendicular lines, angle measures, and symmetry. Throughout the course, students justify their thinking, compare strategies, and use equations, diagrams, and models to build strong mathematical understanding and practices.

Grade 5

Prerequisites: Math K-4 and fifth-grade level reading and writing skills

Math 5 is an inquiry-driven, discussion-based course aligned to Grade 5 mathematics content and organized around coherent sequences of problem-based tasks. Students develop fluency with addition and subtraction of fractions and deepen their understanding of fraction

multiplication and division in focused cases, such as dividing unit fractions by whole numbers and whole numbers by unit fractions. The course extends students' understanding of division to include two-digit divisors and strengthens fluency with whole-number operations. Students also develop conceptual understanding of decimal operations to the hundredths place and apply these skills in problem-solving contexts. In addition, students build understanding of volume by relating it to multiplication and applying formulas to find the volume of right rectangular prisms. Throughout the course, students justify their reasoning, analyze strategies, and use visual models, equations, and representations to build strong mathematical understanding and practices.

Grade 6

Prerequisites: All elementary math courses and middle school level reading and writing skills

Math 6 is an inquiry-driven, discussion-based course aligned to Grade 6 mathematics content and organized around coherent sequences of problem-based tasks. The course begins with area and surface area, engaging students in concrete and visual reasoning while strengthening habits of careful observation and mathematical discourse. Students develop a strong foundation in ratios and rates as they represent and solve problems involving equivalent ratios, unit rates, and percentages. They deepen their understanding of numbers and operations by dividing fractions, building fluency with multi-digit whole-number and decimal operations using standard algorithms, and extending their work with expressions and equations to represent relationships between quantities. Students are introduced to rational numbers, including negative numbers on the number line and coordinate plane, and reason about inequalities. The course concludes with statistics, where students pose statistical questions, analyze categorical and numerical data, and describe distributions in terms of center and variability. Throughout, students justify their reasoning, connect representations, and engage in meaningful mathematical discussions to build strong conceptual understanding and practices.

Grade 7

Prerequisites: Math K-6 and middle school level reading and writing skills

Math 7 is an inquiry-driven, discussion-based course aligned to Grade 7 mathematics content and organized around coherent sequences of problem-based tasks. Students deepen their understanding of proportional relationships as they analyze and represent situations involving unit rates, constant of proportionality, scale drawings, and percent increase and decrease. They extend their understanding of operations with rational numbers, developing fluency with addition, subtraction, multiplication, and division of positive and negative numbers and applying these skills in real-world contexts. Students write and solve equations and inequalities to represent relationships between quantities and solve multi-step problems, and they explore linear relationships through tables, graphs, equations, and verbal descriptions. The course also includes geometric reasoning with angle relationships, area, surface area, and volume, as well as probability and statistics, where students analyze data and investigate chance processes.

Throughout, students justify their reasoning, connect multiple representations, and engage in meaningful mathematical discussions to strengthen conceptual understanding and mathematical practices.

Grade 8

Prerequisites: Math K-7 and middle school level reading and writing skills

Math 8 is an inquiry-driven, discussion-based course aligned to Grade 8 mathematics content and organized around coherent sequences of problem-based tasks. Students deepen their understanding of linear relationships by analyzing, graphing, and solving linear equations and systems of linear equations in one and two variables. They develop a formal understanding of functions, comparing and interpreting multiple representations including tables, graphs, equations, and verbal descriptions. Students extend their work with geometry by investigating transformations, congruence, similarity, the Pythagorean Theorem, and volume, using reasoning to solve increasingly complex problems. The course also introduces irrational numbers and extends students' understanding of the real number system while strengthening fluency with exponents and scientific notation. Throughout the course, students model real-world situations, justify their reasoning, connect multiple mathematical representations, and engage in meaningful mathematical discussions to build strong conceptual understanding and prepare for the study of Algebra 1.

Algebra 1

Prerequisites: All elementary and middle school math courses and middle school level reading and writing skills

Algebra 1 is an inquiry-driven, discussion-based course aligned to Algebra 1 mathematics content organized around coherent sequences of problem-based tasks that develop students' ability to model and analyze relationships between quantities. The course begins with one-variable statistics, where students collect, display, and interpret data to understand distributions and variability, establishing a foundation for reasoning in context. Students then study linear equations and systems of equations by modeling real-world situations, writing, graphing, solving, and justifying solutions with increasing precision. They extend this work to two-variable statistics, analyzing relationships using scatter plots, two-way tables, and linear models, and represent constraints with linear inequalities and systems of inequalities. Throughout the course, students deepen their understanding of functions, using function notation, domain and range, average rate of change, and key features of graphs to interpret and compare linear, piecewise (including absolute value), exponential, and quadratic functions. The course concludes with a focused study of quadratic equations, as students solve by reasoning, rewriting equivalent forms, and applying the quadratic formula, further developing their understanding of the real number system. Across units, students engage in mathematical modeling, applying the full modeling cycle to meaningful contexts and strengthening their ability to communicate and justify their reasoning.

Science

Transitional Kindergarten

TK science is primarily a play-based exploration of the natural world. Students observe and start to interact with the world around them. Students learn to observe models or real phenomena, create representational models and designs, and ask questions about scientific concepts.

Kindergarten

Students start a structured exploration of the ways that humans interact with the world around them. They explore the needs of plants and animals, study predictable patterns in the weather, and investigate ways that pushes and pulls affect the motion of an object. Students learn to make observations and verbally share ideas as they identify patterns found in the natural world.

First Grade

Students explore scientific concepts while building their observational skills and learning how to identify and describe patterns found in the natural world. Students explore phenomena using print or video resources, modeling, and, when possible, real-world observations. They identify and describe daily and yearly patterns in the movement of the sun, moon, and stars; observe the way that plant and animal offspring inherit traits from their parents, and explore the ways that humans use light and sound for communication.

Second Grade

This course covers various topics in physical, earth, and life sciences. Earth science topics include the ways that we map and categorize landforms, as well as some of the ways landscapes can change over time through weathering, erosion, volcanic eruptions, or floods. Physical science topics include the properties of matter including strength, flexibility, melting/freezing, and absorbency, as well as the ways that we can select different materials for different purposes. Life science topics include the interactions between plants and animals, especially pollination. Through readings, videos, modelling, digital investigations, and hands-on labs, students engage with a wide array of scientific phenomena. Each unit storyline immerses students in exciting, real-world challenges that get them thinking about STEM careers and the ways humans interact with the natural world.

Third Grade

Third grade science at KLS begins to prepare students for our accelerated middle school science program by combining Grade 3 and Grade 4 science standards. Physical science topics include

the study of forces, motion, and collision. Earth science includes weathering, erosion, and the fossil record as well as the ways that natural cycles cause weather phenomena. Life science in third grade focuses on the interactions between organisms and their environment, as well as the ways animals change over time: both on the smaller timescale of individual life cycles, and longer evolutionary timescales. Through readings, videos, modelling, digital investigations, and hands-on labs, students engage with a wide array of scientific phenomena. Each unit storyline immerses students in exciting, real-world challenges that get them thinking about STEM careers and the ways humans interact with the natural world.

Fourth Grade

Fourth grade science at KLS prepares students for our accelerated middle school science program by combining Grade 4 and Grade 5 science standards. The course covers physical, earth, and life sciences largely through explorations of human-environmental interactions, especially focused on the ways that humans' use of resources impact the natural environment. Through readings, videos, modelling, digital investigations, and hands-on labs, students engage with a wide array of scientific phenomena. Each unit storyline immerses students in exciting, real-world challenges that get them thinking about STEM careers and the ways humans interact with the natural world.

Fifth Grade

Fifth grade science at KLS prepares students for our accelerated middle school science program by combining Grade 5 science standards with Middle School Earth Science topics. Students explore ways that matter and energy cycle on Earth, and compare Earth's systems to those present on other planets. Through readings, videos, modelling, digital investigations, and hands-on labs, students engage with a wide array of scientific phenomena. Each unit focuses on one major sub-topic of Earth Science: the geosphere, hydrosphere, atmosphere, and cosmosphere.

Art

Autonomy and responsibility are the staples in our studio which prepare students for important developmental milestones in and out of the classroom. Students work to unlock the variety of stations and centers available in class to expand their choice repertoire. Students learn in a rich studio/classroom setting where they are introduced to a diverse range of artists, culturally relevant art practices from around the world and important techniques through guided in-person examples and museum-grade digital demonstrations. The curriculum is segmented in the following areas: Drawing, Painting, Printmaking, Sculpture, Textiles, Mixed Media, Portfolio

Review. Cross subject collaboration is prioritized when possible, while the lessons allow some flexibility for school wide events such as Galas, Exhibitions, Open Houses, and Major Holidays.

Transitional Kindergarten

Students exercise their creativity through a series of action art, play-driven material introductory lessons for the first 2-3 months of the year. This methodology is aimed at cultivating a natural curiosity in students as well as developing their sense of unique expression and familiarity with the materials. Through hands-on exploration, pointed questions, and a variety of sensory materials, young artists are introduced to a variety of tools, textures, and materials in a joyful, supportive environment aimed at encouraging students to express themselves comfortably, make mistakes without fear of consequence, as well as to develop a sense of agency in a class studio setting where they are responsible for their creative decisions.

Kindergarten

Students exercise their creativity through a series of lessons to introduce them to practices and materials for the first 1-2 months of the year. This methodology is aimed at developing their sense of unique expression and familiarity with the materials and procedures in an art studio setting. Through pointed questions, and technical descriptions/demonstrations of the usage of the materials, young artists are encouraged to explore their unique interests, to experience a sense of curiosity about the materials and their limitations, to better express themselves comfortably, to make artistic mistakes and learn from them, as well as to develop a sense of agency in a class studio setting where they are responsible for their creative decisions and behavioral choices. Art history and culturally diverse art techniques are introduced throughout the year when students have a level of confidence instilled for them to infuse their work with personal meaning while holding the cultural significance simultaneously.

First Grade

Students are introduced to the art studio as a place where they are artists who make choices. The scope of content focuses on foundational skills such as exploring line, shape, color, texture, and basic art materials (drawing tools, paint, collage, clay). Major themes include self-expression, storytelling through pictures, and exploring the world through observation and imagination. Students learn studio routines, how to care for materials, and how to work independently within structured choices. Learning experiences include rotating through introductory centers (drawing, painting, collage, building), creating artwork inspired by personal experiences, and participating in group reflections where they practice talking about their own and others' art using simple art vocabulary.

Second Grade

Students deepen their understanding of artistic choices and craftsmanship. The scope of content expands to include pattern, balance, symmetry, and mixing colors, while continuing skill development in drawing, painting, fiber, collage, printmaking and sculpture. Major themes include community, nature, storytelling, and cultural connections in art. Students begin planning their work with simple sketches and are encouraged to revise and improve their ideas. Learning experiences include working in established studio centers, experimenting with new tools and techniques, exploring art from diverse cultures, and engaging in collaborative projects that focus on artistic decisions, working as a group and problem-solving.

Third Grade

Students strengthen their artistic independence and conceptual thinking. The scope of content includes perspective basics, proportion, texture techniques, relief sculpture, printmaking, and more advanced painting methods. Major themes include identity, environment, symbolism, and art as communication. Students learn to develop ideas over time, set goals, and reflect on their artistic growth. Learning experiences include longer-term projects within choice centers, sketchbook planning, collaborative student teaching experiences and connections to diverse and historical artists to understand how art helps shape society and individuality.

Fourth Grade

Students engage in more sophisticated artistic processes and critical thinking. The scope of content expands to include foreground, middle ground, and background, shading and value, mixed media techniques, weaving, advanced sculpture, and collaborative work. Major themes include social issues, personal voice, innovation, and art across time and cultures. Students are encouraged to take creative risks and refine craftsmanship. Learning experiences include designing original projects from concept to completion, maintaining sketchbooks for research and idea development, participating in group projects with conversations about how to utilise their strengths and their areas of improvement, and exploring how artists use art to express perspectives and respond to the world.

Fifth Grade

Students work with increasing autonomy and conceptual depth as emerging young artists. The scope of content includes advanced composition, realistic and expressive drawing techniques, complex 3D construction, printmaking, fiber arts, and mixed media experimentation. Major themes include identity, change, storytelling with intention, and an improvement of their use of visual language in communication. Students practice goal-setting, revision, and portfolio development. Learning experiences include independent project proposals, sustained independence and encouragement to create multiple versions of their work which assess their understanding of the material learned, collaborative work experiences which explore the challenges of working as a team, and preparing artwork for exhibition. The course culminates in a

reflection on artistic growth and the development of confidence in personal creative voice, preparing students for middle school art experiences and guiding them through the design process.

Physical Education

Transitional Kindergarten and Kindergarten

The Transitional Kindergarten and Kindergarten Physical Education program introduces students to the joy of movement through developmentally appropriate activities that build confidence, coordination, and a love for being active. Students develop fundamental motor skills through running, jumping, hopping, skipping, throwing, catching, balancing, rhythm, music, and creative movement while learning class routines, following directions, and transitioning safely between activities. Social-emotional learning is integrated into every lesson as students practice sharing, teamwork, responsibility, self-regulation, and healthy habits, while enjoying age-appropriate games that prepare them for future physical activities.

First Grade and Second Grade

The First and Second Grade Physical Education program builds on foundational movement skills through structured lessons that include warm-ups, skill development, and a variety of sports, cooperative games, creative tag activities, and blacktop recess games. Students strengthen their physical abilities through partner and team-based activities while developing communication, teamwork, sportsmanship, self-regulation, and an understanding of both winning and losing with respect and resilience.

Third Grade through Fifth Grade

The Third through Fifth Grade Physical Education program develops students' sport-specific skills through dynamic warm-ups, fitness activities, cooperative games, and team sports that challenge coordination, strategy, and physical fitness. Students build leadership, communication, teamwork, problem-solving, and self-regulation while setting individual goals and taking greater ownership of their learning and personal growth.

Extended Day Program

Physical Education (TK–5)

The Extended Day Physical Education program provides students with additional opportunities to stay active, build confidence, and have fun beyond the regular school day. Activities reinforce and expand upon the skills students are learning during Physical Education classes while introducing new games, cooperative challenges, and age-appropriate activities. Older students also participate in friendly tournaments and team-based competitions that encourage sportsmanship, leadership, teamwork, and continued skill development in a fun and engaging environment.

Art

TK/K will prioritize sensory, exploratory, and action art activities, while grades 1-5 will use their creativity to foster a sense of community and school spirit through yearbook/school newspaper/schoolwide beautification contributions, service learning, and entrepreneurial craft projects. Cross-subject collaboration projects across the extended day program will include costume and set design for performing arts when needed. Prizes and games construct assistance as needed for sports when needed.

Exploration Lab

Extended Day Exploration Lab is a place for students to think, design, and build. It is where ideas take shape through hands-on creation, and where the process of iterating, testing, and refining matters as much as the finished product. Teachers guide multi-week, collaborative projects, but students are given real ownership and freedom over how they bring their ideas to life. Students engage with real design thinking and problem-solving. The goal is not just to make something; it is to think deeply about *why* and *how* something is made, and to build the confidence and creativity that comes from turning an idea into something real.

Science

The Extended Day Science program gives students opportunities to explore, build, and think like scientists. Sessions cover a wide range of topics, including general design experiments, robotics, coding, and gardening, building on what students are learning in Science class while giving them room to explore new ideas hands-on. Students in TK–1 build foundational skills through simple, guided investigations, while students in grades 2–5 step into deeper, inquiry-driven work, including designing their own inventions and presenting their thinking to others. Across all grade bands, students develop curiosity, hands-on problem-solving skills, and confidence in asking and answering their own questions about the world around them.

Performing Arts

Extended Day Performing Arts will focus on performance and expression. Throughout the year, students will explore dance, music, and creative movement, as well as acting through both improvisational games and scripted skits or plays.

Math Olympiad

Math Olympiads for Elementary and Middle Schools (MOEMS) is a mathematics enrichment program for students working at a Grade 3 mathematics level or above. Meeting once per week for one hour from September through March, the program develops students' mathematical reasoning, problem-solving strategies, and persistence through challenging, non-routine problems. As part of the international MOEMS program, students participate in five in-school competitions held monthly from November through March against students from schools around the world. Participation is open to eligible students and is not limited to those enrolled in the Extended Day program. Registration is completed separately from Extended Day enrollment, with sign-up information distributed prior to the start of the program.

Girls' Adventures in Math

Girls' Adventures in Math (GAIM) is a mathematics enrichment program for students working at a Grade 3 mathematics level or above, designed to build confidence and mathematical reasoning, through engaging, collaborative problem solving. Meeting once per week for one hour from February through April, students explore rich mathematical tasks that encourage creative thinking, communication, and perseverance. The program culminates in participation in the annual Girls' Adventures in Math competition, where teams apply their mathematical thinking to solve complex, non-routine problems. Participation is open to eligible students and is not limited to those enrolled in the Extended Day program. Registration is completed separately from Extended Day enrollment, with sign-up information distributed prior to the start of the program.