



Lower School Curriculum Guide
2021-2022



LÉMAN MANHATTAN
PREPARATORY SCHOOL

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MISSION

Léman Manhattan is an International Baccalaureate World School that delivers an academically rigorous program and sets high expectations for students from early childhood through 12th grade. Serving our local neighborhoods and a diverse international community, we prepare students with the knowledge, confidence, and fluency they need to engage in a rapidly changing world.

Léman challenges students' intellect and inspires their creativity. We encourage them to think critically and work collaboratively. Celebrating each student's individuality, we foster the skills they need to grow in mind, body, and spirit. Our unifying mission is to instill a positive outlook in each of our students and a certainty for all they can achieve in life.

Léman Manhattan. Each student, future prepared.

VISION

The greatest lasting impact of a Léman education will be the achievement of our students and the contributions they make to their communities and to the world.

Preparing each student for a future filled with personal growth, fulfillment and success defines, unifies, and inspires everyone and everything we do at Léman Manhattan.

VALUES

Our core values are the essential and enduring tenets of our school community. These principles, reflected in the Portrait of a Léman Manhattan Learner, guide all of our actions. At Léman, we firmly believe in the essential value of:

- Thinking critically and working collaboratively
- Achieving excellence through academic rigor
- Respecting diverse opinions and cultures
- Fostering meaningful student-teacher-parent partnerships
- Addressing each student's individual learning style
- Discovering passions and nurturing creativity
- Serving our local and global communities
- Encouraging independent thinking and decision-making
- Cultivating resiliency and determination
- Instilling confidence and optimism
- Growing in mind, body and spirit
- Recognizing the importance of preparation for life

INCLUSION STATEMENT

Léman Manhattan Preparatory School is a community of diverse cultures, languages, and countries of origin, which draws unity through the acknowledgement and celebration of our differences. As a mosaic of individuals who believe everyone should feel safe and respected, we strive to facilitate opportunities for meaningful engagement with openness and empathy. This process of communication is integral to fostering a just and harmonious place of learning.

Ours is an inclusive school where students, families, caregivers, faculty, and staff are supported equally, and where each unique identity, voice, ideological viewpoint, and experience is valued. We honor all members of our community, diverse in ability, age, appearance, belief system, citizenship, culture, family structure, gender, gender identity, language, learning style, national origin, political view, race, religion, sexual orientation, and socio-economic level, and all other protected characteristics.

Committed to sustaining an environment free of harassment in any form, including bullying and discrimination, we maintain that the work of inclusion is a responsibility held by all and done for all, person to person. We embrace this challenging yet rewarding opportunity and understand that this is an evolving work which enriches our lives.

PORTRAIT OF A LÉMAN LEARNER



Portrait of a Léman Manhattan Learner

Léman Manhattan Preparatory School is an international learning community committed to educating, empowering, and inspiring students from early childhood through 12th Grade to be confident, independent, critical thinkers. The Portrait of a Léman Manhattan Learner includes the IB Learner Profile as well as additional unique attributes that draw from the Léman Manhattan Mission Statement.

AS LÉMAN MANHATTAN LEARNERS, WE STRIVE TO BE:

- INQUIRERS**
- We nurture our curiosity, developing skills for inquiry and research.
 - We know how to learn independently and with others.
 - We learn with enthusiasm and sustain our love of learning throughout life.

- KNOWLEDGEABLE**
- We develop and use conceptual understanding, exploring knowledge across a range of disciplines.
 - We engage with issues and ideas that have local and global significance.

- THINKERS**
- We use critical and creative thinking skills to analyze and take responsible action on complex problems.
 - We exercise initiative in making reasoned, ethical decisions.

- COMMUNICATORS**
- We express ourselves confidently and creatively in more than one language and in many ways.
 - We collaborate effectively, listening carefully to the perspectives of other individuals and groups.

- PRINCIPLED**
- We act with integrity and honesty, with a strong sense of fairness and justice, and with respect for the dignity and rights of people everywhere.
 - We take responsibility for our actions and their consequences.

- OPEN-MINDED**
- We critically appreciate our own cultures and personal histories, as well as the values and traditions of others.
 - We seek and evaluate a range of points of view, and we are willing to grow from the experience.

- CARING**
- We show empathy, compassion, and respect.
 - We have commitment to service, and we act to make a positive difference in the lives of others and in the world around us.

- RISK-TAKERS**
- We approach uncertainty with forethought and determination.
 - We work independently and cooperatively to explore new ideas and innovative strategies.
 - We are resourceful and resilient in the face of challenges and change.

- BALANCED**
- We understand the importance of balancing different aspects of our lives—intellectual, physical, and emotional—to achieve well-being for ourselves and others.
 - We recognize our interdependence with other people and with the world in which we live.

- REFLECTIVE**
- We thoughtfully consider the world and our own ideas and experience.
 - We work to understand our strengths and weaknesses in order to support our learning and personal development.

The ten attributes and descriptors above are called the 'IB Learner Profile.' They are valued by all IB World Schools.

- COLLABORATORS**
- We form cultural, academic and social partnerships, globally and locally.
 - We maximize opportunities to share our learning within our own community and beyond.

- GLOBAL CITIZENS**
- We mindfully cultivate individuality and embrace diversity.
 - We are advocates for peace and stewards of the planet.

These additional descriptors represent unique attributes valued at Léman Manhattan.

LÉMAN ACADEMIC PLAN



LOWER SCHOOL PROGRAM

In Léman's Lower School, students find their passions. As a result, they become independent thinkers and competent decision makers who are excited to learn. We offer a diverse program that encourages students to reach their academic, social, and emotional potential in a challenging yet supportive environment.

In addition to emphasizing proficiency in reading, writing, and mathematics, our Lower School program focuses on the humanities, science, world languages, and physical education. Music and visual arts are also an integral part of our curriculum, as they help to develop creativity, open-ended thinking, and collaboration.

Using Teachers College Reading and Writing Workshop as the backbone of our literacy curriculum, students in the Lower School gain the skills needed to read, write, analyze, compare, and discuss text across a variety of genres.

Our rigorous math curriculum builds conceptual understanding utilizing varied instructional practices, such as hands-on activities, games, fact practice, and daily routines. Students connect mathematical concepts to everyday situations with an emphasis on problem solving, critical thinking, and exploration of multiple strategies. The curriculum provides repeated exposure to mathematical concepts to build skills.

Students engage in the scientific process through observation and hypothesis, doing the work of real scientists in the Lab and the outside world. They develop an analytical mindset through inquiry, and test their understandings through designing, conducting, and reflecting on experimental investigations.

A cornerstone of arts education in the Lower School is our signature Strings Program, which introduces the violin in Kindergarten and continues through the 3rd Grade. In the 4th Grade, students apply their musical knowledge to new concepts through performance-based ensembles in Band or Chorus. They develop musical literacy, hone musicianship skills, and work together to achieve the common goal of performing as an ensemble.

We have high expectations of our students' work, and Léman teachers are skilled at challenging children to consistently set and reach new goals. Faculty confer with students individually and in small groups, helping them to find their voice and advocate for themselves as they prepare for the transition to Middle School.

As a diverse school community, we continuously review our curriculum to embrace the beauty of our diversity, stressing the importance of equity, and ensuring inclusivity. Through thoughtful development of units of study, we are committed to presenting accurate information with an emphasis on multiple perspectives. Our programs reflect a conscious and programmatic commitment to develop inquiring, knowledgeable and caring future leaders who view themselves as global citizens looking for ways to create a better and more peaceful world through intercultural understanding and respect.

Our teachers provide thoughtful attention to each child's academic, social, and emotional development, and focus on building classroom communities in which children are inspired to explore, create, and grow as learners and young citizens of the world.

PERSONALIZED LEARNING PLANS

Beginning in First Grade, the Personalized Learning Plans (PLPs) uniquely demonstrate Léman Manhattan's commitment to the growth and development of every student. Léman Manhattan believes that education is a partnership among the student, home, and school. In keeping with our Léman Learner profile, we want our students to be knowledgeable, curious, and reflective thinkers. Léman understands that in order to maintain a high level of engagement and motivation in their education, students must have a sense of ownership for their schooling and an understanding of the qualities that make for a successful life-long learner. The PLP is one way of achieving this as it provides students with an individual goal that is driven by their passions, interests, and aspirations while incorporating both academic and Habits and Attitudes of Learning (HAL) components.

Building the PLP is a collaborative process to which all partners (teachers, parents, and students) contribute. It is a call to action by the teacher, the student, and the family with everyone in agreement of his or her role in the achievement of the plan. Work on the passion-driven project will occur both at school and at home. We teach our students that the process is as important and meaningful as the product. We will also provide students with the tools to organize and persevere with a long-term goal. Students and teachers will document progress and provide personal reflections on their PLP each trimester. Projects are presented in the spring.

HABITS AND ATTITUDES OF LEARNING

Community citizenship, inquiry, ownership and independence, work habits, perseverance, and communication are the Habits and Attitudes of Learning (HAL) at Léman Manhattan. Following a Responsive Classroom approach, students work within their homerooms each year to create class practices aimed at providing an environment where all children can achieve their hopes and dreams. Each day begins with a morning meeting, setting the tone for the day and welcoming all students as members of the class and school community. Through daily interactions with peers, they work together to achieve common goals and learn to listen to others with understanding and empathy.

Community Citizenship: Follows classroom and school agreements; considers the impact his or her decisions make on others; and works well with others towards a common goal.

Inquiry: Asks questions and is open to new ideas and perspectives; takes risks; and demonstrates a desire to grow continually as a reflective learner.

Ownership and Independence: Initiates and follows through; strives for personal best; and exhibits self-management.

Work Habits: Uses available resources to support her or his learning; strives for accuracy; and takes on and completes tasks in a timely manner.

Perseverance: Persists through challenges; open to learning from mistakes; and uses various strategies to complete tasks.

Communication: Participates in a range of conversations and collaborations with others; expresses his or her ideas clearly; and listens not only to respond, but to elaborate and/or expand on their ideas.

LANGUAGE POLICY

The LMPS Language Policy, integral to LMPS philosophy and practice, creates a shared vision and mission to successfully implement LMPS language programs and curriculum. It is comprehensive and school-wide and promotes a high-quality academic curriculum for advanced language proficiency in at least one language other than the mother tongue for all students. The policy also recognizes and embraces the central role language and culture play in the overall linguistic, cognitive, and academic development of LMPS students.

Guiding Principles At LMPS, we:

1. Foster in students the ability to think and express themselves with precision, clarity, confidence, and imagination in at least one language other than the mother tongue.
2. Provide an appropriate language and learning program in order to allow all students to access their curriculum in a supportive environment.
3. Involve all teachers in the language-teaching process, as language and learning are inextricably linked and fundamental to learning.
4. Value the student's first language and literacy as the foundation for second and third language acquisition and development. These are essential in establishing a firm foundation for thinking processes, in maintaining cultural identity, and in developing communicative and literacy competence.
5. Engage in meaningful and authentic learning experiences with well-designed programs since language acquisition and learning take place best in such an environment.
6. Believe firmly that language development in more than one language fosters personal growth and is essential to the development of international understanding.
7. Employ a variety of instructional methods in all areas of the curriculum to develop skills in reading, writing, speaking, and listening in the three communicative modes: interpretive, interpersonal, and presentational.
8. Provide opportunities for teachers and administrators to participate in relevant professional development in the areas of linguistic and cultural awareness.
9. Integrate the expression of cultural and linguistic heritage into all programs and facilitate cultural exchanges through the curriculum and special events.
10. Support mother tongue languages both through differentiation and IB Language A courses.

Regarding English Language Learners (ELLs), the faculty of LMPS believes and practices the following:

- English is the primary medium of instruction; teachers work collaboratively to provide a program of English language learning for all students to address their academic needs.
- All staff members are language teachers, independent of their core specialties, and are responsible for addressing and meeting the needs of all students of diverse linguistic and cultural backgrounds.
- Parents are made aware of their important role in ensuring the development of their children's mother tongue and are encouraged to do so through a range of strategies to support their child's education, including enrollment in a mother tongue program.
- At Léman Manhattan, we believe that ELL students are best educated in a sheltered instruction environment. When possible, our ELL students are instructed in a mainstream setting with ELL push-in and pull-out support, providing them access to content area standards as they develop English proficiency.
- Students are supported with ESOL classes based on their English levels.

- All staff members understand the particular needs of those students being educated in a language.

STUDENT SUPPORT SERVICES

Léman Manhattan Preparatory School's main goal is to meet student needs through a differentiated, rigorous curriculum. We are committed to meeting the needs of all students through an increasingly comprehensive framework of curriculum, instruction, and assessment. Each division has a Student Support Team comprised of trained Learning Specialists who collaborate with classroom teachers and administrators to identify a well-integrated system of instruction and intervention for students identified as in need of support and/or enrichment.

Léman Manhattan Student Support Services

The role of the Student Support Services team is to ensure Léman Manhattan provides an inclusive PK through Grade 12 multidisciplinary student support system that respects learner differences, facilitates attainment of Léman Manhattan's high educational standards, and promotes the development of lifelong learners. The Student Support program is designed to secure and organize equitable access to all academic programs, including the International Baccalaureate (IB) programme.

Student Support Services includes Learning Support, Counseling, and Nursing. This supplementary handbook focuses on providing specific information regarding Learning Support and Counseling services. Additional information about Health Services and Nursing may be found in the school handbook.

The Student Support Services department is guided by the following principals:

- Students build self-confidence and better prepare themselves to be lifelong learners by developing self-advocacy skills and by understanding their individual learning needs.
- It is important to work with the whole student (intellectually, socially, emotionally, and physically) from a position based on the student's strengths in an effort to address areas of concern.
- Learning issues may change as the child grows and developmental differences need to be considered, therefore resources should be flexible and allocated as needed.
- An effective student support program requires a team approach with all team members sharing responsibility for the student's learning. Teams may include students, parents, teachers, student support personnel, and administrators.
- Staying current with research and best practices helps the team determine how to address student needs.
- An effective support program is articulated in PK through Grade 12, including procedures and policies, assessments, entrance and exit criteria, transition plans, and other essential components.

LEARNING SUPPORT SERVICES

Processes for meeting students' learning needs.

Student Study Teams

Student study teams are multidisciplinary meetings hosted at the divisional level and led by the Director of Student Support Services or designee. These meetings provide an opportunity for teachers, administrators, and parents (when appropriate) to discuss concerns about student learning and/or behavior, and problem-solve to identify strategies and interventions that can be readily implemented by the classroom teacher, learning specialist, school psychologist, counselor, parent, or other appropriate staff member.

Special Education/Learning Resource

Students who do not show appropriate progress (i.e., meeting grade-level expectations) based on a variety of data from both the classroom and formal evaluations may receive supplemental instructional interventions, which are targeted and more individualized.

ENGLISH FOR SPEAKERS OF OTHER LANGUAGES PROGRAM

Our mission is to help students acquire proficiency in the English language to ensure academic success and to help them confidently participate and integrate as active members of the Léman Manhattan Preparatory School (LMPS) community.

We believe that all students should have equal access to the curriculum and should be immersed into mainstream classrooms whenever possible. The ESOL Department believes that high academic standards help promote language development for non-native English speakers. A culture of school-wide collaboration is adopted such that classroom content is made accessible and comprehensible for English language learners. Students are strongly encouraged to maintain their mother tongue, enhancing both cognitive development and English language acquisition.

The faculty of LMPS believes and practices the following:

- English is the primary medium of instruction, and teachers work collaboratively to provide a program of English language learning for all students to address their academic needs.
- All staff members are language teachers and are responsible for addressing and meeting the needs of all students of diverse linguistic and cultural backgrounds.
- At Léman Manhattan, we believe that ELL students are best educated in a sheltered instruction environment. Our ELL students are instructed in a mainstream classroom setting with ELL push-in and pull-out support when possible.

TECHNOLOGY, LIBRARY, AND INFORMATION CONNECTIONS

TECHNOLOGY

At Léman Manhattan, the Educational Technology Coordinator, the Librarians, and the Technology Department work as a team to collaborate on technology support and information literacy instruction for each grade. They facilitate the physical infrastructure and support successful and ongoing integration across the curriculum in the CECE, collaborating with faculty to plan, execute, and evaluate curricular units that engage and challenge students.

Technology and media are tools that are effective only when used appropriately. Passive use of technology and any type of screen media is an inappropriate replacement for active play, engagement with other children, and interactions with adults. At Léman Manhattan, our teachers, supported by the Educational Technology Coordinator, have the knowledge, skills, and experience to select and use technology tools and interactive media that suit the ages and developmental levels of the children in their care, and they know when and how to integrate technology into the program effectively.

The WonderLab is a space of constant evolution, a space for exploration, planning, and collaboration where learning and creativity happen in a playful manner. Its mission is to create inquiry-based experiences that transform learning. It incorporates a Green Screen to be used in video projects, an Epic Lego Wall for students to create Lego art and Lego vertical projects, an age-appropriate Makedo Cardboard Station for "messy" construction and prototyping, a Chalkboard Wall for brainstorming and idea visualization, a Snap Circuits wall for controlled discovery of technology via experimentation with circuits, and also cutting-edge technology such as a 3D displayer, Dash and Kibo Robots, Code-a-Pillars and Code&Go.

These tools, along with expert facilitation, allow students to gain a better understanding of cause and effect and problem-solving, which are the building blocks to the design and coding processes. Because of its participatory nature, the WonderLab fosters opportunities for children to "think outside the box" and use their innate curiosity to become innovators, creators, and risk-takers.

This shared space allows children to work together and communicate with their peers, providing opportunities to build on each other's ideas and develop the skills of negotiation—a key attribute to becoming an open-minded, caring member of the community. The work that students do in the WonderLab reflects and reinforces the Portrait of a Léman Manhattan Learner.

Lastly, technology tools at Léman Manhattan support the ways our educators measure and record development, document growth, plan activities, and share information with students, families, and the school community in general. We use class pages that include announcements, assignments, calendars, resources, photographs as well as audio and video recordings to document, archive, and share a child's accomplishments and developmental progression with families.

LIBRARY

Uniquely situated as a shared resource for the entire lower school community, the Lower School library is a welcoming place for gathering, learning, exploring, creating and, of course, reading. The mission of the library curriculum is to promote a love of reading, provide access to diverse

information and ideas, and to equip students with the skills they need to locate, evaluate, and use information. The library is home to over 17,000 books and print resources and over 20 databases and on-line reference sites. These are available to all members of the school community: teachers, students, and parents.

Lower School students have weekly scheduled library classes but may also visit the library as needed, including before and after school. In addition to supporting and enriching the classroom curriculum, the library program exposes students to a wide variety of literature and teaches specific literacy and information skills. Gradually, each child is equipped with the skills to become independent library users and critical researchers. Younger children begin by learning how books are made and to care for them. They also learn how books can be classified and organized and how to locate the books they love. Older children learn specific organizational systems like the Dewey Decimal system, how to use the online catalog and self-checkout procedures. They learn research skills beginning with how to locate appropriate print and digital resources. Critical thinking is stressed as they learn to evaluate information for accuracy, currency, bias and usefulness. Finally, students learn how to be ethical and responsible users of information, including how to make appropriate citations.

Most importantly, the Lemman Library program is designed to foster a general love for reading, literature, and information. All children are exposed to a wide variety of literature. They explore genres in depth and study folktales, poetry as well as non-fiction. We hope to broaden their perspectives and enlarge their worlds, using literature as a way to celebrate and explore a diversity of lives and experiences. The library also provides opportunities for students to learn more about the process of creating books by hosting several children's book authors and illustrators each year.

STANDARDIZED TESTING

ERB/COMPREHENSIVE TESTING PROGRAM 5th EDITION (CTP-5)

The CTP-5 test is administered to students in Grades 2-9 in the spring. The test is designed to collect information about student achievement in key areas: listening, reading, vocabulary, writing, and mathematics. The CTP-5 Verbal tests assess students in the following areas: Word Analysis, Auditory Comprehension, Reading Comprehension, Writing Mechanics, Writing Concepts and Skills, Verbal Reasoning, and Vocabulary. The CTP-5 Mathematics tests includes questions that assess students' understanding and application of a variety of content and process areas in mathematics, including five main categories: Number and Operations, Algebra, Geometry, Measurement, and Data Analysis and Probability.

Auditory Comprehension

The CTP-5 *Auditory Comprehension* test assesses pre-reading vocabulary and comprehension of orally presented material, understanding of stated information, the ability to determine the gist of short passages, and the ability to infer information based on these passages. Administered to Grades 2-3

Mathematics

The CTP-5 *Mathematics* test assesses conceptual understanding of mathematics, application of mathematical knowledge to solve problems, and the ability to compute or estimate solutions. Administered to Grades 2-9

Quantitative Reasoning

The CTP-5 *Quantitative Reasoning* test assesses the ability to analyze mathematical concepts and principles, to make generalizations, and to compare quantities mathematically. Administered to Grades 3-9

Reading Comprehension

The CTP-5 *Reading Comprehension* test assesses comprehension of written material, including recall of information, identifying of main ideas, and hypothesizing using information from passages. Administered to Grades 2-9

Verbal Reasoning

The CTP-5 *Verbal Reasoning* test assesses the ability to analyze information and draw logical inferences, to recognize analogical verbal relationships, and to generalize verbal categorical attributes. Administered to Grades 3-9

Vocabulary

The CTP-5 *Vocabulary* test assesses recognition and understanding of a wide range of grade-appropriate vocabulary and use of context clues to determine meaning. Administered to Grades 4-9

Writing Concepts and Skills

The CTP-5 *Writing Concepts and Skills* test assesses understanding of the components of effective written composition. Administered to Grades 2-9

Writing Mechanics

The CTP-5 *Writing Mechanics* test assesses understanding of spelling, capitalization, punctuation, and usage conventions. Administered to Grades 2-9

ERB/WRITING ASSESSMENT PROGRAM (WrAP)

The WrAP test is administered to students in Grades 3-10 in the winter. The test is designed to provide a direct assessment of writing through a writing sample submitted by each student. The test mirrors formal classroom writing practice to inform learning and instruction.

EXTRACURRICULAR ACTIVITIES, CLUBS, AND ATHLETICS

LÉMAN PLUS AFTER-SCHOOL PROGRAM

The Léman Plus AfterSchool Program (L+) offers a wide variety of enrichment classes to children in Kindergarten through 5th grade. The program allows students to select from course listings that change each semester ("Fall" and "Spring") in athletics and aquatics, visual and

performing arts, STEM, and much more. The classes are designed to encourage students to pursue existing passions, develop new interests, enhance academic learning, build social skills, and broaden their horizons outside of the curricular day. L+ offers classes in chess, coding, musical theatre, swimming, soccer, ice skating, cooking, science, woodworking, and many other areas. L+ employs individuals and carefully selected outside program partners to offer outstanding courses to our students.

*Courses vary based on availability. Please refer to our website for up-to-date offerings.

CURRICULUM PHILOSOPHIES

The following curriculum philosophies were created by members of the Pre-K to 12th Grade Department/Vertical Teams. For more specific information, please refer to the grade-level descriptions.

ENGLISH

The study of the human experience is central to English Language Arts. At Léman Manhattan, we recognize the power of literature to unlock empathy and international-mindedness. The invitation to analyze a text, whether visual or written, is a call to hone one's critical thinking and interpretive sensitivity. Our students develop a keen awareness of purpose and audience as they explore different modes of writing, develop their own unique voices as writers, and articulate ideas with clarity and expression.

WORLD LANGUAGES

The World Languages Department believes in teaching students to develop their global awareness and to communicate in a variety of languages. World Language courses provide opportunities for students to have a deeper understanding and appreciation of other cultures through learning language. Léman Manhattan provides rigorous courses in Mandarin, Spanish, and French. All courses ensure development in the core language skills: listening, speaking, reading, and writing in the three communicative modes: interpretive, interpersonal, and presentational. Students acquire language through differentiated learning approaches that stimulate meaningful and authentic communication in the target language (TL). Through studying language, students are exposed to diverse perspectives, practices, and products of the target language's cultures around the world.

From Pre-K to 12th Grade, our spiraled curriculum ensures progression and development of the essential skills needed to become proficient in another language. In High School, students may choose to take a second language as an elective and continue to study one of those languages if they enter the IB Diploma Program in 11th grade. All students are strongly encouraged to apply to participate in the World Language trip to their country of study. This is a language and culture immersion and exchange experience that involves a homestay and service work in the host country. Through language learning at LMPS, students are provided with the knowledge, skills, and cultural understanding that they need to be engaged citizens of the world.

SOCIAL STUDIES

The Social Studies Department at Léman Manhattan Preparatory School promotes critical thinking skills, research, reading and writing abilities, international mindedness, and collaborative learning. As students learn how the past informs the present, they spend a great

deal of time analyzing primary and secondary historical sources to generate the types of work done by historians and other social scientists. Learning is structured by deriving understanding from a variety of perspectives, organized into eight core historical lenses: time, continuity, and change; connections and conflict; geography; culture; society and identity; government; economics; and science and technology.

SCIENCE

The Science Department at Léman Manhattan provides an experience for every student that allows them to investigate and explore the scientific principles of the world around them so that they discover the complexities and beauty of science through the scientific method. While exploring the various disciplines of science, our students' natural curiosity is engaged. They learn to not only ask questions, but how to seek answers.

The science curriculum at Léman is designed to promote and develop an analytical mindset in our students through inquiry. Our students test their own understandings through designing, conducting, and reflecting on experimental investigations. We teach science as a collaborative process to foster cooperation even as we hone our students' individual abilities as learners.

MATHEMATICS

The Mathematics Department at Léman Manhattan strives for students to think critically, communicate effectively, and apply math in real-life situations. Students build a strong base in mathematical skills and knowledge through our hands-on, differentiated approach to learning. We continue to build upon these skills through a variety of teaching resources and strategies. Students graduate Léman Manhattan as lifelong learners of mathematics who are prepared for university and beyond.

FINE ARTS

We believe that artistic experiences enrich students' lives, cultivate creative and inventive thought, and provide unique opportunities for self-discovery and reflection. It is through consistent involvement in the Arts that skills are refined, appreciations are formed, and creativity is enhanced.

Whether in the classroom, studio, or on the stage, our artists, musicians, and actors are challenged to achieve their best work as they develop both artistic and life skills. Through rigorous and creative class experiences, as well as a variety of extra-curricular opportunities, our students are inspired as they actively participate in the creative process as individuals and collaborators. As a result of their Fine Arts experiences, we hope that Léman Manhattan graduates will be lifelong learners who value the Arts as a dynamic contributing force, enriching not only their own lives, but also the lives of the greater community.

PHYSICAL EDUCATION

Physical Education is an essential part of the Léman Manhattan curriculum and is structured to promote lifetime fitness through participation in cooperative activities and team sports. The program inspires students to adopt lifelong physical skills gaining knowledge of movement and sports skills/activities. Our diverse curriculum promotes creativity while fostering teamwork and opportunities for all learners to be successful. The program builds relationships, strengthens physical skills and provides students with the building blocks to live a healthy balanced life.

LOWER SCHOOL CURRICULAR PROGRAM

KINDERGARTEN

Early Literacy

Using a balanced literacy approach, we intertwine phonics with reading and writing workshop to ensure our students have developed strong foundational skills. The integration of interactive read-alouds, small-group work, collaborative-partner reading, and individual conferences provide each student with differentiated opportunities to achieve their personal literacy goals.

Phonics

Throughout the year in literacy centers, students engage in a multisensory approach to review the alphabet and learn each letter's corresponding sound. Phonemic awareness is strengthened through blending phonemes, rhyming word families, and decoding words. To support their development in reading and writing, students are exposed to foundational spelling patterns and high-frequency sight words. Corresponding with the introduction of each letter, students are taught motor-plans for writing lowercase letters.

Reading

Students build strong foundational reading skills by reading books at their individual reading level and implementing reading strategies such as: using picture cues, matching words to the printed text, and sounding out words. These skills are reinforced in small, differentiated groups during reading workshops in guided reading. To develop reading comprehension skills, children are encouraged to make predictions, explain personal connections, and discuss stories with their peers. Children also participate in author studies and focus on the various elements of a story, including the characters, settings, problem, solution, and main ideas. Reading units, both fiction and nonfiction, provide students opportunities to determine similarities and differences across texts and draw conclusions.

Writing

Children practice several writing strategies as they build their understanding of letters and sounds. They are given many opportunities to express their thoughts and ideas through drawing, dictation, and labeling. Students learn to brainstorm, organize their ideas, edit their work, and collaborate with their peers as they celebrate the writing process. Students build independence by using environmental tools such as the Word Wall, anchor charts, and mentor texts. Throughout the year students confer individually with teachers to review their writing and reflect on their personal goals. Writing units include small moments, pattern books, all about books, how-to books, and opinion-writing pieces as well as an ongoing narrative: weekend news.

Mathematics

In Mathematics, students develop problem-solving and critical-thinking skills by working with manipulatives, such as pattern blocks, counting bears, colored tiles, and unifix cubes. These tools are used to strengthen their number sense and understanding of numerical relationships, as well as to identify, create, and extend patterns.

Students work to build their number awareness by counting objects, recognizing numbers, building combinations of one- and two-digit numbers, creating and solving basic equations, and through number stories. Students also work to develop their skills of measurement, graphing,

sorting, composing and decomposing number combinations, and time, through a variety of engaging activities. They learn to identify and describe shapes and analyze, compare, create, and compose plane and solid geometric figures. Math concepts are incorporated through calendar work, recording the daily attendance, and counting the number of days we have been in school. Games extend each unit of study.

Social Studies

Our year begins with a study of self and expands to include our responsibilities as members of a classroom community. Together, students create and establish the classroom “Community Practices,” including expectations for their roles and responsibilities, in order to sustain a safe, happy, and fun learning environment. Students create self-portraits and discover many ways in which they are similar and different from their peers. Then, students engage in a family study where they focus on the differences within the family structure, highlighting immediate and extended family members. In addition, they learn about family traditions that are celebrated during the winter months.

Our studies continue as we learn and discuss communities and how they grow and change. We begin with conversations about the components of a classroom and then expand our focus to discuss our school community and the neighborhood. Each class focuses on the essential components that make up a neighborhood community by reading literature, sharing personal experiences and going on neighborhood visits to learn about the people and businesses that surround our school.

Science

Across the school year, Kindergarteners focus on the three domains of science: physical science, earth science, and life science. The three units of study are Materials and Motion, Trees and Weather, and Animals Two by Two. In Motion and Matter, students have the opportunity to explore the different materials that make up objects and the processes involved in making objects move. In Trees and Weather, students observe the day-to-day changes in weather and how it impacts living things. Finally, in Animals Two by Two, students compare and contrast various animals and learn what each needs to live and grow. Throughout each unit, students participate in collaborative, hands-on, and inquiry-based experiments that require students to collect and analyze data to help build theories about each topic.

World Language

In Kindergarten, we use a variety of familiar themes to expose students to the meaning of the language, preparing them for more advanced language acquisition in future years. Students learn Mandarin, Spanish, or French through stories, games, songs, and music. World Language lessons are taught in comprehension-based communicative language approaches which allow students to access the meaning of the language through what they hear and read and interact through interpersonal communication in writing and speaking. Students learn all content in very familiar, simple, and engaging contexts in order to receive the language input they need to develop proficiency in listening, speaking, reading, and writing.

Through learning language, students are also exposed to cultural celebrations from different countries through songs, poems, expressions, projects, and lifestyles.

Visual Arts

Students tap into their imagination while experimenting with various artistic media. Their fine

motor skills and spatial understanding develop and grow as they create each piece.

We begin with painting. Using a limited palette, the students explore the primary colors and determine how secondary colors can be made. Students work to cover their whole paper with many colors. We continue with collage, examining the work of Eric Carle, cutting up the painted papers we make, and using them to create fish, parks, people, and abstract designs.

After working in two dimensions, students start thinking about how to take their work off the page. We look at work by sculptors such as Richard Serra, an artist whose work is all about standing, leaning, and balancing. We lean, stand, and balance cardboard to create 3D structures. We continue to think sculpturally when we work with clay. We roll clay into balls and coils, and pinch and pull the clay to make various clay formations. We learn about the different stages of clay: wet, air dry, bisque, and glaze.

The semester ends with different forms of weaving and interlocking materials. We make paper and stick weavings called “God’s Eyes.” Each project involves following a pattern of action, such as under/over, over/wrap around, and fold/turn. These actions create a pattern in the projects, which become clearer as the projects near completion.

Woodworking

The woodworking curriculum is centered on four main principles: the practice of individual safety and awareness of others; teamwork and cooperation between students; the development of tool usage; and a lasting sense of accomplishment and success. The overall goal of the program is for students to increase motor skills and tool usage, as well as develop a strong sense of personal accomplishment, success, and ownership by completing meaningful projects.

Students learn how to use straight and coping saws, safety goggles, files, c-clamps, hammers, and wood glue to build their projects. Once the project is assembled, students further design their project with paint and ink to give it a finished quality and to promote ownership and achievement.

Students begin woodworking by learning about safety in the wood shop. We study several tools and their usage, and the children’s first assignment is to assemble a simple drum, utilizing this tool knowledge. The next project each child builds a “Market Basket” that coincides with a class field trip to the urban farm and outdoor market. The basket can be used beyond the classroom as a useful shopping basket to promote healthy nutrition or for display and utilitarian purposes at home.

Music

In Kindergarten Music, vocal technique, ear training, musicianship, and music literacy are developed through a variety of structured and engaging activities. Echo singing of tonal patterns and melodies continues to be an important part of every class. Students practice using their singing voice to match pitch while singing together as a full class, in small groups, and independently, using singing posture and listening skills to improve tone quality. Students continue to create tonal and rhythm patterns and play pitched and non-pitched percussion instruments.

In the spring semester, students are introduced to the violin. Beginning with a focus on rest position, playing position, and instrument safety, students use foam violins and the “The Violin Song” to learn about proper violin posture and practice the steps to transition from rest position to playing position. Performing the “The Violin Song” throughout the process allows students to

focus on building foundational violin technique while developing their singing voice. Soon they make the exciting switch to real violins, and practice making a beautiful pizzicato sound by gently plucking the strings.

Physical Education

Students spend the first few weeks of school learning the rules and routines of physical education. A safe environment is necessary to nurture a positive experience. From the very first day of class, students gain knowledge about lifelong fitness in a safe and fun manner. Throughout the year, students learn about spatial and body awareness, directional concepts, and locomotive skills. Through creative games and activities, cooperation, and fine and gross motor skills are developed.

Locomotive movements such as skipping, galloping, tiptoeing, and running are skills that are continuously reviewed throughout the year. Creative movement is a large part of our curriculum. Students enjoy our animal unit where they explore the movements of other animals. From slithering like a snake to crawling like a spider, students widen their imagination while strengthening muscles and working on key movement skills. Students also participate in a mini yoga unit exploring the cobra, cat, cow, and downward facing dog poses. Learning how to aim is very important to the development of hand-eye coordination, and students practice tossing and catching to themselves as well as with a partner and throwing or rolling objects at target to sharpen these skills. Our curriculum is integrated, and we try to reinforce many of the concepts that are being taught in the classroom in physical education, including our study of the four seasons, pattern development, and the alphabet and animal movements. During our circus unit, students learn how to juggle scarves, walk on bucket stilts, and practice balancing. We conclude the year playing games that reinforce problem solving and cooperation.

Swim

A safe environment is necessary to nurture a positive experience in the water. Students spend the first few weeks of school learning about water safety. We discuss the importance of following the rules and how they can help us become more productive swimmers. Throughout the year, students learn and practice exhaling underwater or “blowing bubbles”, floating (supine and prone floating), streamline ready position, and flutter kicking. Differentiated instruction is crucial to the swimming development of each student. Students often work in small skills-based groups to ensure each student receives the attention they require to progress. As the skill level of the student progresses, they will learn how to combine multiple skills, such as the transition from “ready position” to streamlining off the wall and gliding while exhaling from their nose. These are the beginning steps to learning the front crawl stroke. With practice, students will be challenged to complete a 25-yard swim.

FIRST GRADE

Reading

Reading is implemented through a balanced literacy workshop approach, which consists of guided reading, independent reading, shared reading, small-group work, and word work. Whole-group students observe teachers and engage in practicing how to utilize key skills and specific strategies. Following the mini-lesson, students independently select books and have the opportunity to practice these skills. Students confer one-on-one or in small groups with a teacher and receive feedback that helps each student to establish individual goals. Areas of study include building good reading habits, applying appropriate decoding strategies, interacting with the text to foster strong comprehension, analyzing character traits, exploring nonfiction, and reading across genres. Throughout the year, students continue to build upon reading for meaning and understanding. Throughout the year, students continue to build upon reading for meaning and understanding.

Reading skills introduced and reinforced include building automaticity with sight words, using clues to determine the meaning of a word or phrase, reading with fluency, making connections, asking questions, testing predictions, and beginning to infer author meaning that may not be explicit in the text.

Writing

Students develop their unique voice during Writing Workshop as they learn the writing process. Writing Workshop begins with a mini-lesson, is followed by extensive independent writing time, and concludes with sharing of student work. Areas of study include personal narratives, informational books, opinion pieces, realistic fiction, poetry, and writing like a scientist. Spelling is integrated through the explicit instruction of patterns and high-frequency words using a multisensory approach.

Over the course of the year, students develop the skills necessary to support their growth as authors across various genres. These skills include the ability to generate ideas independently, organize their writing sequentially and include descriptive language. Throughout writing units of study, students learn strategies for supporting their ideas with evidence from their lives and text. Students also discover how to strengthen their writing through the revision and editing process, including applying appropriate conventions.

Mathematics

Large group, small group, and individual work affords students many opportunities for rich math learning. Our rigorous curriculum utilizes balanced instruction through hands-on activities, conversations, problem solving notebooks, games, and independent math work. Students connect mathematical concepts to everyday situations with an emphasis on problem solving, critical thinking, and exploration of multiple strategies. The curriculum provides repeated exposure to mathematical concepts and skills to increase mastery. Topics of study include patterns in counting, place value, operations, measurement, data and graphing, and geometry.

Skills reinforced throughout the year include reading, writing, and representing numbers, as well as comparing and ordering numbers. Students learn to apply strategies and use mathematical tools in order to solve equations, number stories, and justify their thinking verbally, with models, and in writing.

Social Studies

First graders begin the year building an understanding of themselves as learners in the

classroom community. Students learn about what makes them unique and how that uniqueness contributes to and strengthens the entire group. By exploring the nature of cooperation and teamwork, students learn to participate in collaborative activities and conversations to understand, then build upon other student perspectives in all areas of the curriculum.

Using New York City as our classroom, first graders inquire how a community is organized to meet the needs and wants of those who live there. Starting with our classroom community, then expanding to our school community, students build knowledge through investigation about community and utilize what they have learned to create their own community as their focus shifts beyond the walls of Léman.

Linking science, technology, and society, first graders study how things have changed over time. This unit also focuses on problem solving and innovation throughout history. Students begin to understand how people have adapted to their environment and have utilized technology to meet their basic needs. Throughout this unit students also explore personal attributes and leadership qualities that help(ed) notable people facilitate positive change in the world around them.

Science

Across the school year, 1st Graders focus on the three domains of science: physical science, earth science, and life science. The three units of study are Sound and Light, Air and Weather, and Plants and Animals. In Sound and Light, students learn how to observe the characteristics of sound and light as well as gain a deeper understanding of both elements. In Air and Weather, students use tools to enhance their observations of Earth's atmosphere and the patterns of objects in our sky. Finally, in Plants and Animals, students discover the ways plants and animals meet their basic needs. Throughout each unit, students participate in collaborative, hands-on, and inquiry-based experiments that require students to collect and analyze data to help build theories about each topic. Students are also introduced to the basics of computer coding through various learning activities.

Mandarin

In 1st Grade Mandarin, students review and build on previously learned material. The goal is for students to feel comfortable interpreting Mandarin through listening and the reading of words in pinyin, so that they can begin to mimic what they hear and see in the language. Students learn how to interpret, and sometimes produce, basic communication about themselves including, but not limited to, their name, age, feelings, descriptions, likes and dislikes. Some of the course content includes colors, numbers, school, family, weather, clothing, food, places to go, and animals. By the end of the course, students will be able to copy sentence segments and word lists in writing pinyin and singular characters, as well respond to basic familiar questions through speaking or mimicking words, lists, or simple memorized phrases. Through learning language, students are also exposed to cultural celebrations from different Mandarin-speaking countries.

Spanish

In 1st Grade Spanish, students review and build on previously learned material. The goal is for students to feel comfortable interpreting Spanish through listening and reading, so that they can begin to mimic what they hear and see in the language. Students learn how to interpret, and sometimes produce, basic communication about themselves including, but not limited to, their name, age, feelings, descriptions, likes and dislikes. Some of the course content includes colors, numbers, school, family, weather, clothing, food, places to go, and animals. Through learning language, students are also exposed to cultural celebrations from different Hispanic countries. Students learn to be culturally sympathetic by studying different Spanish speaking

countries and exploring the identities of Spanish speakers through songs, poems, expressions, projects and lifestyles.

French

In 1st Grade French, students review and build on previously learned material. The goal is for students to feel comfortable interpreting French through listening and reading, so that they can begin to mimic what they hear and see in the language. Students learn how to interpret, and sometimes produce, basic communication about themselves including, but not limited to, their name, age, feelings, descriptions, likes and dislikes. Students study vocabulary related to colors, numbers, school, family, weather, clothing, food, places to go, and animals. Through learning language, students are also exposed to cultural celebrations from different Francophone countries.

Visual Arts

Students are encouraged to explore the qualities of the materials used, to experiment and problem solve, to express their own ideas, and to reflect on finished work.

Our focus in 1st Grade is cityscapes. We begin our theme of urban landscape by looking at Romare Bearden's *The Block* and create mixed-media street collages. We think about how the city is built down, as well as up, look at David Macaulay's *Underground*, and make above-ground/underground drawings. We continue this idea during our printing project, creating two printing plates, one for above-ground and one for underground, and joining the two to create a single two-color print.

We then work in three-dimensions to create a ceramic building using slabs of clay. We learn to score and slip the clay in order to attach any details and to join the edges of the building.

Woodworking

The woodworking curriculum is centered on four main principles: the practice of individual safety and awareness of others, teamwork and cooperation between students, the development of tool usage, and a lasting sense of accomplishment and success. The overall goal of the program is for students to increase motor skills and tool usage, as well as develop a strong sense of personal accomplishment, success, and ownership by completing meaningful projects. Students learn how to use straight and coping saws, safety goggles, files, c-clamps, hammers, and wood glue to build their projects. Once the project is assembled, students further design their project with paint and ink to give it a finished quality and promote ownership and achievement.

The first project in Woodworking for 1st Grade students is an "Animal Box." Each student builds a four-sided box in which two sides are cut into the shape of two different animals of his or her choosing. The children chose a theme for their project. 'Animals from Africa' or 'underwater animals' and draw a blueprint depicting the animals in their environment. The "Animal Box" is a utilitarian object that combines personal choice and design while expanding each student's proficiency and personal tool usage.

Next, to coincide with the classroom studies of New York City, students design a project that depicts a specific building, park, bridge, or other unique architectural structure. The goal is for students to consider the concept of "place" and to create a work that is meaningful to him or her.

Music

In 1st Grade, students build on the skills and concepts introduced in Kindergarten, developing

foundational musicianship skills and instrumental technique on the violin. Throughout the semester, students use their singing voice to match pitches in tonal patterns and repertoire. Each class begins with a “hello” greeting, sung on words or solfège with accompanying solfège hand signs. Students echo solfège tonal patterns independently and together in addition to performing folk songs. Throughout the year, students develop violin technique and posture while they practice keeping their violin up and covering their left shoulder while playing. Students develop left hand position and learn how to put their fingers down in the correct spots to play the notes. They practice setting up a good bow hold and keeping their fingers flexible with a curved pinky and bent thumb.

Students think critically and demonstrate their understanding of how to make a beautiful sound on the violin. They focus on playing with a light bow, keeping the bow in “bow country” between the bridge and the fingerboard, and making sure that the bow only touches one string at a time. Students perform as a full class, in small groups, and individually to maximize their learning. In music literacy development, students read and perform four-beat rhythm patterns and demonstrate an understanding of written melodic contour in repertoire. Singing on solfège and utilizing the accompanying hand signs helps students to build their audiation, or “inner hearing,” an important part of developing music literacy. Students perform a wide variety of repertoire from different genres as well as benchmark songs including “The Monkey Song,” “Hot Cross Buns,” “Mary Had a Little Lamb,” “Twinkle, Twinkle Little Star,” and “Violin Pro.” Differentiated parts including bass line, melody, upper octave, and harmony are provided to help students to progress at their own level.

Physical Education

In 1st Grade, students participate in both competitive and cooperative activities. Our curriculum offers a balance that allows each student to be successful throughout the school year.

Through warm-up games and activities students strengthen their spatial and body awareness, locomotive skills such as skipping, galloping, and running. Students will participate in a variety of beginner-team sport units which include soccer, basketball, pillow polo, hockey, kickball, and tennis, focusing on developing eye-hand and eye-foot coordination. Our cooperative units include parachute manipulation and bowling. The circus arts unit incorporates all of the above skills and introduces beginning steps of juggling scarves, plate spinning, and walking with bucket stilts. The culmination of the school year is our Lower School Field Day. On this day students compete in relay races and activities, displaying good sportsmanship and respect for classmates.

Swim

Students spend the first few weeks of school learning about water safety, which includes Leman’s pool rules and routines. We discuss the importance of following the rules and how they can help us become safe swimmers.

Throughout the year, students learn skills that are essential to swimming and lifesaving. Students review exhaling underwater, floating (supine and prone floating), streamline-ready position, and kicking. Differentiated instruction is crucial to the swimming development of each child. Students often work in small skills-based groups to ensure each child receives the attention they require to progress. Students are also taught to combine skills, such as how to streamline off the wall and glide while exhaling from their nose as they begin a flutter kick. These are the beginning steps to learning the front crawl stroke. With practice, students will be challenged to complete a 50-yard swim.

SECOND GRADE

Reading

The year begins with students developing an independent reading life through the study of a variety of genres. Students learn how to choose books at their independent reading level, applying decoding strategies, finding meaning of words, and developing reading comprehension skills. While reading non-fiction, students use text features to further develop their understanding of informational texts. As students read realistic fiction, they distinguish multiple character traits, motivations, actions, and feelings. Additionally, students compare, contrast, and make connections to characters, themselves, others, and the world. They generate predictions based on implicit and explicit information from a text. As we wrap up the year, students eagerly await the excitement of engaging in book club conversations for the first time and responding to text through writing, partnership talks, and conferring.

Students build upon their foundational reading skills and become fluent readers who demonstrate understanding of what they read. Reading Workshop provides opportunities for students to learn, develop, and apply reading comprehension strategies. Students establish reading routines by selecting books at their independent reading levels and from a variety of genres. Students independently apply new reading strategies and behaviors. Each student has one-on-one conferences with the teacher working on specific decoding or comprehension strategies, based on individual needs. Key concepts covered in the curriculum include making connections to the world, to other texts, and to themselves, questioning the text, making inferences, and answering questions.

Writing

Writing Workshop provides a framework in which students learn to cultivate and understand narrative, expository, opinion writing, and poetry. Students travel through the writing process by drafting, revising, editing, and publishing. Students build independence through teacher and author mentorship throughout the writing process. During one-on-one conferences, students work to develop the skills needed to enhance his or her skills as a writer.

Writing across many genres fosters the students' ability to independently apply a variety of writing skills. Throughout the narrative units, students learn to generate ideas independently, write sequentially, and include details to describe actions, thoughts, and feelings. When studying expository writing, students learn to introduce a topic and use facts and definitions to develop points. Opinion-writing provides students an opportunity to supply reasons to support a point of view and use linking words to connect it with fact and reason. Second Graders understand their writing benefits from planning, revising, and editing. Upon finishing a draft, students go back through their work to revise and make their writing stronger. During the editing process students are expected to check spelling, punctuation, and capitalization.

Mathematics

In 2nd Grade, students are exposed to real-life mathematical situations. A balanced approach to instruction provides students a foundation through hands-on activities, games, fact practice, and daily routines. A focus on problem solving enables students to achieve true proficiency as they use and share multiple strategies and explain their mathematical thinking. Repeated exposure to mathematical concepts and skills increases mastery.

Skills reinforced throughout the year include place-value, addition and subtraction of whole numbers, and foundational skills for multiplication and division. Students also learn and apply

their understanding of money, measurement, time, data and graphing, and geometry.

Social Studies

Students in the 2nd Grade explore the world through traditions and customs of various cultures. Students study basic needs and how they are met within a community. They develop their cultural awareness and analyze what makes them unique. From there, students investigate the cultural themes of communication, games, food, the arts, and celebrations. Students connect these themes to their own ancestry as they learn about immigration. As a way to bridge immigration to our location, students explore and compare the various neighborhoods around New York City.

Performances, field trips, and real-life simulations support students' growth throughout our units of study. Throughout the year, they will build upon their map skills, understand multiple perspectives, compare the past and present, and find importance in global citizenship.

Science

Across the school year, 2nd Graders focus on the three domains of science: physical science, earth science, and life science. The three units of study are Solids and Liquids; Pebbles, Sand, and Silt; and Insects and Plants. In Solids and Liquids, students compare the properties of various materials as well as learn how materials can change when heated and cooled. In Pebbles, Sand, and Silt, students observe, describe, and analyze the materials that make up the Earth. Finally, in Insects and Plants, students observe and analyze the life cycles of various plants and animals. Throughout each unit, students participate in collaborative, hands-on, and inquiry-based experiments that require students to collect and analyze data to help build theories about each topic. Students are also introduced to the basics of computer coding through various learning activities.

Mandarin

In 2nd Grade Mandarin, students review and build on previously learned material. Students continue to mimic what they hear and see in the language so they can eventually produce language independently. Students practice common types of interpersonal communication and basic classroom routines, using very simple phrases. New vocabulary and structures are also introduced and practiced in a variety of everyday, familiar contexts. Students are also introduced to simple Chinese characters, with an emphasis on character recognition through reading. Proficiency-based performance tasks reinforce newly introduced content. By the end of the course, students will be able to copy sentence segments and word lists in writing basic characters, as well respond to basic familiar questions through speaking or mimicking words, lists or simple memorized phrases. Through learning language, students are also exposed to cultural celebrations from different Mandarin-speaking countries.

Spanish

In 2nd Grade, we review and build on previously learned material. Students practice common types of interpersonal communication and basic classroom routines, using very simple phrases. New vocabulary and structures are also introduced and practiced in a variety of everyday, familiar contexts. Proficiency-based performance tasks reinforce the newly introduced content. Through the interpretation of new French vocabulary and structures, the Spanish class explores a number of cultural topics from the Hispanic world. Students learn to be culturally sympathetic by studying different Spanish speaking countries and exploring the identities of Spanish speakers through songs, poems, expressions, projects, and lifestyles.

French

In 2nd Grade, we review and build on previously learned material. Students practice common types of interpersonal communication and basic classroom routines, using very simple phrases. New vocabulary and structures are also introduced and practiced in a variety of everyday, familiar contexts. Proficiency-based performance tasks reinforce the newly introduced. Through the interpretation of new French vocabulary and structures, the class explores a number of cultural topics from the Francophone world.

Visual Art

In 2nd Grade, students are encouraged to develop their ability to create and respond to meaning in visual imagery, to experiment and problem-solve, to express their own ideas and to reflect on their finished work and works in progress.

Our focus in 2nd Grade is Objects in Art. We start the semester by looking at and creating art in which objects are central in one way or another. We look at Hanna Hoch's collages and The Bicycle Wheel by Marcel Duchamp, Soup Cans by Andy Warhol, and the large-scale object sculptures by Oldenburg and Van Bruggan. We make Dada-inspired collages by cutting up found images and mixing them up. We make large-scale sculptures of everyday objects and create our own series of soup can drawings.

We then look at artists who seem to abandon objects all together and focus on line or shape. We step into Jackson Pollock's boots and drip, drop, and splatter paint on large canvas. We make primary color grid collages after looking at Mondrian's work and create bold, wavy paper collages after looking at Matisse's paper cutouts.

Woodworking

The woodworking curriculum is centered on four main principles: the practice of individual safety and awareness of others, teamwork and cooperation between students, the development of tool usage, and a lasting sense of accomplishment and success. The overall goal of the program is for students to increase motor skills and tool usage, as well as develop a strong sense of personal accomplishment, success, and ownership by completing meaningful projects. Students learn how to use straight and coping saws, safety goggles, files, c-clamps, hammers, and wood glue to build their projects. Once the project is assembled, students design their project with paint and ink to give it a finished quality and promote ownership and achievement.

Students in 2nd Grade create "Moving Animals" in Woodworking. Each student draws and designs a moving figure, such as a lion, alligator, elephant, insect, or dragon that he or she would like to create. Based on their drawings and using reference materials, students then cut and shape the individual parts and assemble them together. Legs, arms, tails, wings, and heads move according to the shape and representation of each chosen figure. Once the entire class has completed their creatures, we work together to create a background and to produce a stop motion film utilizing these animal figures.

The next project entails students designing a tool or a musical instrument from wood. The project is completed when it is painted and creatively adorned with found materials in the classroom.

Music

In 2nd Grade, students build on previous knowledge and skill development and continue to develop foundational musicianship skills and violin technique. Students continue to develop vocal technique and sing the repertoire they play on words, finger numbers, and solfège.

Students strive to meet violin posture and instrumental technique benchmarks including keeping their violin up and covering their left shoulder, demonstrating correct left-hand position, making sure their fingers are placed in the correct spots to match pitch when playing the violin, and performing with a correct and flexible bow grip. They think critically and continue to address Essential Questions, including, “How do I make a beautiful sound on the violin?” In addition to utilizing a light bow and staying on one string, they work to keep their bow in “Lane 3” or “bow country” between the bridge and fingerboard.

Students continue to develop music literacy by reading and performing rhythm patterns and following the melodic contour of song notation. Students connect the solfège they sing to the notes they play, echoing and creating tonal patterns in D Major. Students play the G, D, and A Major scales in varied meters with accompanying arpeggios. They learn how to use a “low 2nd finger” to perform tonal patterns and repertoire in minor tonalities. They perform a wide variety of repertoire from different genres, as well as benchmark songs including “Violin Song,” “Minor Monkey,” and “Lean on Me.” Differentiated parts including bass line, melody, upper octave, and harmony are provided to help students to progress at their own level. Throughout the spring, students learn songs, which relate to their study about immigration. They perform these songs at assemblies.

Physical Education

In 2nd Grade, students participate in both competitive and cooperative activities. Our curriculum offers a balance that allows each student to be successful throughout the school year.

Through warm-up games and activities, students strengthen their spatial and body awareness, locomotive skills such as skipping, galloping, and running. Students will participate in a variety of team sport units, which include soccer, basketball, pillow polo hockey, kickball, and tennis. Students will be introduced to basic team sports concepts such as offense and defense. Our cooperative units include scooter games and bowling. The circus arts unit incorporates all of the above skills and introduces the beginning steps of juggling scarves, plate spinning, and using bucket stilts. The culmination of the school year is our Lower School Field Day. On this day students compete in relay races and activities, displaying good sportsmanship and respect for classmates.

Swim

Students spend the first few weeks of school discussing the importance of water safety, which includes our pool rules and routines. Throughout the year students review skills learned previously and build upon those skills to enhance their stroke development. Each lesson allows for practice of these skills and the time to develop the endurance needed to be a capable swimmer.

The first stroke we break down into phases is the front crawl. Students work on mastering the flutter kick, working on technique, and endurance. We then break down the pull phase, teaching students to breathe to the side. Eventually, we combine both arms and legs to have a complete stroke. Students also learn backstroke and breaststroke in the same manner. As safety is always first, all students will end the school year learning how to tread water for an extended period of time.

THIRD GRADE

Reading

In Reading Workshop, students begin the year by continuing to build a reading life at school and at home. Students practice daily reading routines such as strategies for selecting 'just-right' books, talking about reading with a partner, and writing about their reading. Through an exploration of fiction, students follow characters in stories to build theories and are exposed to various story elements. Students read informational texts, using text features to gain information about a topic and recount the details that support the main idea. Diving deep into a mystery unit, students learn how to cite specific evidence from a text to help them collect clues and solve mysteries. We then read adventure and fantasy books for our character study unit where we investigate our characters even further, thinking about their behaviors, character traits and motivations. To round out the school year, students turn their attention to narrative nonfiction by reading biographies. The students read biographies as they take their reading skills across content areas to enter the exploration unit in Social Studies! We have book clubs for our last two reading units, giving students time to explore the same text deeper with their partners.

Across all units, students continue to practice strategies such as making connections, predictions, and inferences, with an emphasis on interpretation. They show their comprehension by citing evidence from texts and supporting their conclusions through speaking and writing. While exploring a variety of genres and applying learned skills to all books they read, students work on reading fluently, reading with expression, and using context clues to find the meaning of unknown words. They also determine the main idea of a book and recount key details to identify the purpose of a text.

Writing

In Writing Workshop, students focus on qualities of good writing, including ideas, organization, sentence fluency, conventions, voice, and word choice. They produce three modes of writing (narrative, informational, and opinion) throughout the year and practice these modes through a variety of writing projects. Students begin the year collecting ideas and writing pieces about a 'small moment' in their own lives with an emphasis on thoughts, feelings, and actions. Next, the students write informational pieces on a topic they are interested in or feel they know like an expert. The students later return to narrative writing, using what they learned from their 'small moment' piece to create adaptations and original fairy tales. Students partake in an in-depth research project that coincides with the social-studies unit of study on explorers. They learn how to identify important information in an article or book and paraphrase it into their own words. Finally, students write a persuasive piece about a topic they feel passionately about. They share their opinion by expressing their views on an issue or topic they care deeply about.

Across all units, students generate ideas and focus on organizing their pieces, so their writing is clear, coherent, and sequenced logically, while keeping the reader in mind. As growing authors, students work to connect their ideas using descriptive words, figurative language, and dialogue and actions to enhance meaning. They develop, organize, and strengthen their writing pieces by planning, revising, and editing. Students apply grammar rules to their sentences and paragraphs, using correct punctuation, capitalization, and spelling of high-frequency words. Students also learn and practice spelling rules and letter patterns. They become proofreaders as they take mental pictures of words and learn to identify misspelled words within their own writing. Students strive for accuracy and neatness when presenting their work.

Mathematics

Students explore mathematical concepts through a balanced program that is rich in real-world problem solving and hands-on learning opportunities. Addition and subtraction fact-knowledge is expanded to larger numbers. Multiplication and division are introduced as the children explore various strategies for solving problems. Students use their knowledge of patterns and functions to help them represent various rules for solving problems. Developing an understanding of the uses and representations of whole numbers, and parts of a whole, they compare and find equivalencies. Students collect, analyze, and draw conclusions about data. Basic concepts of probability are applied as students represent the likelihood of events in both words and fractions. Systems of measuring are examined as the children learn to measure accurately with various tools. Prior knowledge of two-dimensional shapes progresses to three-dimensional figures as students compare and contrast various geometric elements. Throughout every unit of study, students are challenged to not only solve problems, but to also understand why their strategies work and explain how they arrive at a solution.

During the year, skills are covered in a spiraling fashion, giving students the opportunity to demonstrate their mastery of new information on multiple occasions. Students use their knowledge of place-value to read, write, compare, and order whole numbers up to hundreds, and fractions, representing these numbers in a variety of ways. Through repeated practice, students build their automaticity with addition and subtraction facts through 20 and multiplication facts through 10×10 . Various strategies, including estimation, are used to help children solve problems in all four operations. Students tell, write, and calculate elapsed time to the nearest minute. When comparing two- and three-dimensional figures, students use geometric terms to describe their observations. Students estimate and measure length and apply this information to calculate perimeter and area. Third-grade mathematical skills are continually reviewed so that as students demonstrate proficiency, they can then apply these skills to more challenging, critical-thinking tasks.

Social Studies

The year launches with students connecting to the members of their community. Students investigate the systems of governance in and outside of school and expand their views to city, state, country, and the world. Students learn to interpret and analyze different kinds of maps and continue to practice map skills as they begin their study of Manahatta. As students analyze Manahatta's various habitats and compare/ contrast to present-day Manhattan, students apply their understanding of the habitats to interpret information and create two- and three-dimensional landforms. They embrace the study of the Lenape people and Iroquois, the first residents of the Eastern Woodlands, through storytelling and contrasting between their own culture and the Lenape culture. The unit on exploration begins with students using inquiry to learn about extreme environments, tools, technology, challenges, culture, roles, responsibilities, and race and gender while investigating how exploration has changed over time. This unit takes them to present-day/modern exploration.

The 3rd Grade social studies curriculum is a comprehensive study of people and places from the past and present. Through a meaningful journey of self, exploration, and discovery, students become empathetic and engaged citizens of our classroom, community, and world. Students recognize themselves within the context of the world's history and analyze the roles of the individual and community across time. Throughout the curriculum students are developing their critical-thinking and higher-reasoning skills through exploration, research, hands-on projects, and field trips.

Science

Across the school year, 3rd Graders focus on the three domains of science: physical science, earth science, and life science. The three units of study are Motion and Matter, Water and Climate, and Structures of Life. In Motion and Matter, students learn how and why objects move and how mass can be conserved. In Water and Climate, students explore how water supports all forms of life and how weather is driven by the movement of water. Finally, in Structures of Life, students learn where organisms come from and how they survive on Earth. Throughout each unit, students participate in collaborative, hands-on, and inquiry-based experiments that require students to collect and analyze data to help build theories about each topic. Students are also introduced to the basics of computer coding and 3D printing through various learning activities.

Mandarin

In 3rd Grade Mandarin, students review and build on previously learned material. Students continue to mimic what they hear and see in the language and begin to take risks in producing language independently. New vocabulary and structures are also introduced and practiced in a variety of familiar contexts. Students begin to read and spell words in pinyin independently as another way to access the pronunciation and meaning of Chinese characters. They also begin to consistently interpret short and familiar Chinese characters through reading. Proficiency-based performance tasks reinforce newly introduced content in all four language skills: listening, speaking, reading, and writing. Through learning language, students are also exposed to cultural celebrations from different Mandarin-speaking countries.

Spanish

In 3rd grade, students review and build on the content they have previously learned. Through practicing basic interpersonal communication, students learn to recognize and use high frequency structures to make descriptions, to express likes and dislikes, and to communicate in simple memorized sentences. During the course, students work on proficiency-based performance tasks related to the course content. Students are exposed to more of the main celebrations and cultural topics from the Hispanic world. Students learn to be culturally sympathetic by studying different Spanish speaking countries and exploring the identities of Spanish speakers through songs, poems, expressions, projects, and lifestyles.

French

In 3rd Grade, students review and build on the content they have previously learned. Through practicing basic interpersonal communication, students learn to recognize and use high frequency structures to make descriptions, to express likes and dislikes, and to communicate in simple memorized sentences. During the course, students work on proficiency-based performance tasks related to the course content. Students are exposed to more of the main celebrations and cultural topics from the Francophone world.

Visual Art

In 3rd Grade, students are encouraged to develop their ability to create and respond to meaning in visual imagery, to experiment and problem-solve, to express their own ideas and to reflect on their finished work and works in progress.

Our focus in 3rd Grade centers around the question: “How do artists develop their technique?” We start the semester with a study of facial proportions and create a self-portrait. We will then be thinking about the human form and how it is represented in art. We will be investigating the ideas and emotions that form can express in works of art and how gestures can communicate. Students will explore a variety of artists, such as Amy Sutherland, Frieda Kahlo, Naum Gabo, Kehinde Wiley, Chuck Close, and Kathe Kollwitz.

Woodworking

The woodworking curriculum is centered on four main principles: the practice of individual safety and awareness of others, teamwork and cooperation between students, the development of tool usage, and a lasting sense of accomplishment and success. The overall goal of the program is for students to increase motor skills and tool usage, as well as develop a strong sense of personal accomplishment, success, and ownership by completing meaningful projects. Students learn how to use straight and coping saws, safety goggles, files, c-clamps, hammers, and wood glue to build their projects. Once the project is assembled, students design their project with paint and ink to give it a finished quality and promote ownership and achievement.

The first woodworking project in 3rd Grade is a transporter. Students draw, design, and build a unique vehicle. The goal is for each student to choose the form of a vehicle and to construct it in such a way that it clearly uses the three criteria given: it needs to be able to carry something, it must have four wheels, and there must be a way to pull the wagon.

Next, students create 3-dimensional sculptures from 2-dimensional drawings. Each student creates a drawing and then, based on the image, the students cut and shape the individual elements of the drawing out of wood. These individual pieces are subsequently filed, sanded, and attached onto a “background” piece, creating a three-dimensional picture entirely out of wood. The creation of these projects places the student in the role of artist, designer, and builder. The process of creating this work promotes personal choice, creativity, and command of the materials as artistic expression.

Music

In 3rd Grade, students build on the skills and knowledge cultivated in previous years and continue to develop as musicians and instrumentalists. They are invited to take more ownership of their technical development; continuing to set goals and self-assess their progress. Elements of violin technique including violin posture, left hand position, bow grip, bow contact point, and sound quality continue to be important points of focus during each class. Students sing throughout each class and continue to build ensemble skills in preparation for their involvement in Band or Chorus during 4th Grade.

Students continue to play repertoire in D, A, and G Major while exploring new keys and tonalities, and practicing scales, arpeggios, and new song repertoire. Students continue to build music literacy by making the connection between the notes they play on the violin and their location on the five-line musical staff. Students identify the four open strings, read tonal patterns, and read and write melodies on the staff. Students continue to build their repertoire of songs, adding songs in varied genres, including “This Land is Your Land,” “Lightly Row” and “Allegro”. Differentiated repertoire continues to be an important component of the curriculum and includes bassline, melody, upper octave, and harmony parts.

Physical Education

Third Grade students participate in both competitive and cooperative activities. Our curriculum offers a balance that allows each student to be successful throughout the school year.

Through warm-up games and activities, students practice jogging and basic fitness concepts. Students will participate in a variety of team-sport units, including soccer, basketball, floor hockey, diamond games, and badminton. Students are introduced to positions for each team sport and how to play those positions. Our cooperative units include adventure and strategy games as well as fun fitness. The circus unit incorporates all the above skills and introduces students to beginning steps of juggling balls and spinning plates. The culmination of the school

year is our Lower School Field Day. On this day students compete in relay races and activities, displaying good sportsmanship and respect for classmates.

Swim

Students spend the first few weeks of school discussing the importance of water safety, which includes our pool rules and routines. Throughout the year students review skills learned previously and build upon those skills to enhance their stroke development. Each lesson allows for practice of these skills and the time to develop the endurance needed to be a capable swimmer.

Third Graders will review freestyle and backstroke and develop their breaststroke. Students will be introduced to learning open turns and flip turns. Our last unit of the year is games and activities, which includes relay racing and water polo.

FOURTH GRADE

Reading

Reading Workshop strives to continue developing students into avid and skilled readers. We begin with a review of the routines of the reading workshop and previously learned comprehension strategies. Students also learn to identify and analyze literary elements, including plot, character, setting, problem and solution, and themes. Using realistic fiction chapter books, students are challenged to think deeply about characters—making inferences, building theories, and learning life lessons. During a study of nonfiction, students apply their knowledge of nonfiction features to extract information from expository and hybrid texts. When concentrating on narrative nonfiction, students highlight the main ideas and supporting details within a biographical text. The culminating unit for the year is an exploration of historical fiction through the use of Book Clubs. Students collaborate with peers as they read a shared text and participate in daily discussions.

Exposure to a variety of genres throughout 4th Grade enables students to develop the reading skills they need to become independent readers. Students make meaning of literature by reading and comprehending grade-level texts with fluency and expression. As they read, students demonstrate their understanding by making connections and describing characters' traits, motivations, actions, and feelings. These details help to illuminate the theme of a text and how point of view affects the voice and context of each piece. Students are encouraged to use context clues to understand the meaning of unknown words. They also learn to use both explicit and implicit information from the text to make predictions and logical inferences. As increasingly sophisticated readers, students identify details from a passage to summarize a story and to answer questions about the text. When reading nonfiction, students describe the overall structure of a nonfiction text and determine whether the information they read consists of fact or opinion. Information is integrated from multiple texts on the same topic in order to write or speak about the subject knowledgeably.

Writing

Writing Workshop provides a framework in which students learn to develop longer narratives, essays, and an informational research piece. In the narrative realm, students publish a realistic fiction story. Students write a personal essay about a topic of interest from their lives and a

persuasive essay on a more universal subject. In tandem with our nonfiction unit in reading, students apply their social studies knowledge and nonfiction skills to write an informational text chapter book on one topic consisting of an introductory piece, an expository essay, a narrative piece, and a persuasive essay. Throughout the year, students create multi-paragraph writing pieces and edit them critically through the five-step writing process: idea generation, drafting, revising, editing, and publishing. Students engage in utilizing their knowledge of writing persuasive essays and transfer these skills to writing a literary essay. Students explore themes of picture books and write a five paragraph essay, convincing the reader as to why the life lesson of the picture book is important. Students also engage in learning vocabulary, spelling rules, sentence structure, parts of speech, punctuation, and capitalization.

The writing curriculum fosters the development of a variety of essential writing skills. As they practice the five-step process and produce writing pieces, students learn how to generate topics for their compositions, as well as the ideas and details needed to craft them. Students learn to structure their writing with topic sentences, supporting details, conclusions, and logical sequences that include effective transitions between ideas, sentences, and paragraphs. They also learn to adjust the tone of their writing to match different genres, such as realistic fiction or memoir. In composing narratives, students use dialogue and description to bring their stories to life. In students' informative pieces, they generate thesis statements that are supported with reasons and evidence, and include facts, definitions, concrete details, quotations, and examples. To collect the material they need for a nonfiction piece, students learn how to gather relevant information from experiences and print or digital sources, and to take notes, categorize information, and provide a list of sources. Throughout the year, students come to an understanding that their writing benefits from planning, revision, and editing. As part of the editing process, they check spelling, punctuation, capitalization, and grammar, consulting references as needed.

Mathematics

The curriculum provides students with a balanced approach that is rich in real-world problem-solving opportunities. The 4th Grade structure emphasizes content within six major strands: number and numeration, operations and computation, data and chance, measurement and reference frames, geometry, patterns, functions, and algebra. Students develop an understanding of the meanings, uses, and representations of numbers, finding commonalities of and differences among whole numbers, fractions, decimals, and percentiles. Students review facts in addition, subtraction, multiplication, and division, as well as develop procedures and models for these operations. Analysis and interpretation of data is essential in selecting and creating appropriate graphical representations and applying basic concepts of probability. An exploration of customary and metric systems is conducted as students learn to measure length, weight, angles, area, and perimeter. Students investigate characteristics and properties of two- and three- dimensional geometric shapes and apply transformations and symmetry. As an understanding of patterns and functions is developed, students use algebraic notation to read, write, and solve number sentences and learn the properties of the arithmetic operations.

Fourth Graders are given numerous methods for skills practice and review, and are encouraged to explain and discuss their thinking in their own words. Students use their understanding of place value to read, write, and compare whole numbers and decimals. Additionally, they estimate and perform arithmetic operations on whole numbers, fractions, decimals, and percentiles. These concrete skills are further developed when solving word problems involving multiple operations: money, elapsed time, calendars, temperature, capacity, weight, and distance. As students analyze numerical quantities in various forms, they compare sizes, recognize patterns, and show alternative ways to solve problems. Students recognize size in

customary and metric units, describe the relationships between units of measurement within the same system, and use appropriate units and tools of measurement. Geometric language is used when identifying, comparing, and creating lines, angles, and plane and solid figures. As data is collected, students are expected to represent this information with a variety of charts and graphs and analyze the data. Throughout all units of study, students formulate conclusions based on observation and mathematical judgment, and explain their thoughts and strategies to further develop their understanding of these concepts.

Social Studies

Through the use of primary documents and nonfiction texts, students develop an understanding of the formation of the United States. The initial geography unit, which includes map-reading skills and topography, provides the students with a foundation for the year's concepts. The study of U.S. history begins with Colonial America and some of the aspects of life during that time period. Students explore why people moved to the British colonies and how the colonies acted as individual communities. From there, the students learn the causes of the American Revolution, engaging in a discussion reflective of both sides of the conflict. Students then investigate the Declaration of Independence, learning about the development of the document and how its key components relate to the end of the Revolutionary War. Next, the students study the Constitution, identifying the structures of our government and the concepts in the Bill of Rights. Once they understand the formation of the new nation, students explore the country's movement westward. Through a study of the Louisiana Purchase, students trace the events that led to this deal and learn about its significance for the expansion of the country. The students then follow the Lewis and Clark expedition, studying the topography of the journey, the plant and animal life found along the way, and the Native American tribes that the explorers encountered.

Over the course of the year, students develop an array of skills to help them demonstrate understanding of this content. Students are expected to describe political, social, and cultural changes in society and how cultural contributions from various groups form a national identity. With the identification of the different causes and effects of conflict and cooperation among individuals, groups, societies, and nations related to politics, economics, geography, ethnicity/race/gender, and culture, students recognize the impact of major historical events. By identifying the elements of major political systems, students can compare and contrast a monarchy and a democracy. Students then describe the organization and major responsibilities of the various levels of government, explaining how citizens can monitor, evaluate, and influence actions of their government. The idea of commerce, such as the ways people satisfy their basic needs and wants through the production of goods and services, allows students to realize its importance throughout history. Geography concepts, such as location, distance, direction, scale, movement, and region, are intertwined with the skills of each unit.

Additionally, weekly study of current events challenges students to connect what they are learning from their study of history to our community, society, and world today. Students are encouraged to see themselves as capable agents of change, who can apply lessons learned from their study of the past to real-world problem-solving situations today.

Science

Across the school year, 4th Graders focus on the three domains of science: physical science, earth science, and life science. The three units of study are Energy; Soils, Rocks, and Landforms; and Environments. In Energy, students explore the presence of energy whenever there is motion, electric current, sound, light, or heat. In Soils, Rocks, and Landforms, students learn how and why the Earth is constantly changing. Finally, in Environments, students examine

how organisms live, grow, and respond to their environments. Throughout each unit, students participate in collaborative, hands-on, and inquiry-based experiments that require students to collect and analyze data to help build theories about each topic. Students are also introduced to the basics of computer coding and 3D printing through various learning activities.

Mandarin

This course reviews and builds on previously acquired skills. Students begin to take risks creating with the language, while practicing listening, speaking, reading, and writing. In this course reading and writing become a new focus. Students learn to recognize and write more characters, and through differentiated proficiency-based performance tasks, students learn to interpret short paragraph-length passages through listening and reading and engage in presentational and interpersonal communication through writing and speaking. Through learning language, students are also exposed to cultural celebrations from different Mandarin-speaking countries.

Spanish

This course reviews and builds on previously learned content and acquired skills. Through differentiated proficiency-based performance tasks, students begin to develop basic writing and speaking skills through reading and listening to meaningful and comprehensible language in a variety of everyday life contexts. Students learn to interpret short paragraph-length passages through listening and reading and engage in presentational and interpersonal communication through listening comprehension, writing and speaking. Exploration of Hispanic cultural celebrations takes place throughout the course. Students learn to be culturally sympathetic by studying different Spanish speaking countries and exploring the identities of Spanish speakers through songs, celebrations, expressions, projects and lifestyles.

French

This course reviews and builds on previously learned content and acquired skills. Through differentiated proficiency-based performance tasks, students begin to develop basic writing and speaking skills through reading and listening to meaningful and comprehensible language in a variety of everyday life contexts. Students learn to interpret short paragraph-length passages through listening and reading and engage in presentational and interpersonal communication through writing and speaking. An exploration of Francophone cultural celebrations takes place throughout the course.

Visual Art

Students in 4th Grade are encouraged to develop their ability to create and respond to meaning in visual imagery, to experiment and problem-solve, to express their own ideas and to reflect on their finished work and works in progress.

Our focus in 4th Grade centers around the question: "How do artists communicate?" We will be thinking about how art can be used to tell our stories or stories that are important to us. We start the semester exploring somewhat narrative works by artists such as Kerry James Marshall, William Kentridge, and Elizabeth Murray.

Woodworking

The woodworking curriculum is centered on four main principles: the practice of individual safety and awareness of others, teamwork and cooperation between students, the development of tool usage, and a lasting sense of accomplishment and success. The overall goal of the program is for students to increase motor skills and tool usage, as well as develop a strong sense of personal accomplishment, success, and ownership by completing meaningful projects. Students

learn how to use straight and coping saws, safety goggles, files, c-clamps, hammers, and wood glue to build their projects. Once the project is assembled, students design their project with paint and ink to give it a finished quality and promote ownership and achievement.

Fourth Grade students begin by creating a freestanding sculpture or a “personal totem,” based on totems made by Northwestern Native Americans. Each student draws, designs, and builds a sculpture that consists of shaped wood pieces that represent themselves. These shapes are then assembled and painted to stand vertically from the base. The goal of the project is for students to be self-directed with their creative decisions in Woodworking and to successfully design and build a sculptural art object.

The second project in 4th Grade woodworking is process driven. The students are tasked with employing all of the tools and hardware with which they have gained proficiency to design and create a piece of their choosing, either individually or collaboratively. Once finished, they will give a presentation to the class explaining the purpose of the project and how and why it was constructed.

Music

In 4th Grade, students apply their knowledge from their previous musical experiences to new concepts and ideas through performance-based ensembles in either Band or Chorus. They develop their musical literacy, hone their musicianship skills, and work together to achieve the common goal of performing as an ensemble. Students explore and explain how our contributions as individuals help our community to excel as a whole.

Band

The 4th Grade Band serves as the introductory ensemble in our 4th - 12th Grade Band program. The Léman Manhattan Band program utilizes Concert Band instrumentation, and students can choose between the following instruments: flute, oboe, clarinet, saxophone, trumpet, French horn, trombone, euphonium, or percussion. In addition to whole group ensemble instruction, each Band student will take a weekly lesson (choice of group lessons at no charge or private lessons for a fee) on his/her specific instrument.

In the 4th Grade Beginning Band, students learn how to assemble their instruments, how to utilize proper instrument carriage and hand placement, and how to produce a sound. During rehearsals and weekly lessons, students learn how to read written notation and learn instrument-specific skills. Ear-training, listening skills, ensemble skills, and a basic music vocabulary of musical terms/symbols are also emphasized. Attention will be given to equipment care and maintenance, as well as effective practice habits. In addition to beginning level folk songs, rhythmic exercises, and the concert Bb scale, this class prepares grade 1 Concert Band literature in a variety of genres. The performance component of the class involves participation in the winter and spring concerts.

Chorus

Lower School students begin their choral music experience in the 4th Grade. It is the beginning level ensemble in our 4th - 12th grade Chorus program. A primary focus of the class is developing healthy vocal technique. Students begin class each day with a physical warm-up and a variety of vocal warm-up exercises. They think critically about the ways that posture and breathing impact their singing. Students demonstrate the ability to maintain their own independent part while singing a variety of rounds and folk songs. They prepare for performances by matching intonation and diction, singing in unison, and singing in multiple parts as they rehearse a wide variety of elementary choral repertoire. They develop music literacy by

reading, writing, and dictating tonal patterns, identifying notes on the staff, reading melodies, and describing different types of intervals. In addition, Chorus students work on developing ensemble skills and collaborate to create a productive work environment. The 4th Grade Chorus performs twice per year in the winter and spring concerts.

Physical Education

Fourth Grade students participate in both competitive and cooperative activities. Our curriculum offers a balance that allows each student to be successful throughout the school year.

Through warm-up games and activities, students practice jogging and basic fitness concepts. Students participate in a variety of team-sport units including soccer, basketball, floor hockey, diamond games, and badminton. During these units, students review the rules of the game, are reintroduced to positions and how to play them, and discuss offensive and defensive strategies. Students then participate in modified games that incorporate all of the skills they have learned. Fitness concepts are introduced and added to each unit so that they build upon previously taught skills, thus allowing students to make deeper connections between how their body works and the activities in class. Our cooperative units include scooter and adventure/strategy games. The circus unit incorporates all of the above skills and introduces students to beginning steps of juggling balls and spinning plates. The culmination of the school year is our Lower School Field Day. On this day, students compete in relay races and activities, displaying good sportsmanship and respect for classmates.

Swim

The year begins with a quick review of pool safety rules and routines. Once in the pool, students review skills learned previously and build upon those skills to enhance their stroke development, endurance, and strength needed for all aspects of swimming. Each lesson allows for practice of these skills and the time to develop the endurance needed to be a capable swimmer.

Students participate in drill sets to help develop technique for freestyle, backstroke, and breaststroke. Lessons include pull buoys and kickboards to help strengthen both the pulling and kicking phases of each stroke. We emphasize the value of long, relaxed strokes as well as patterns and rhythms. We promote swimming not only as a competitive sport, but also as a lifetime sport.

Fourth Graders love our junior lifeguard unit. Students learn the basics of being a junior lifeguard, which includes treading water, surface diving, stride and compact jumping, assessing a scene, performing a reaching assist, and most importantly, learning how to keep themselves safe while helping others. Our last unit of the year is games and activities, which includes relay racing and water polo.

FIFTH GRADE

Reading

Once the students have reached 5th Grade, they are skilled at interpreting texts from a reader's point of view and have begun to simultaneously consider the author's point of view and impact on a text. Reading Workshop continues to build students' reading stamina while teaching them to move from concrete reading practices to more abstract analyses. The units of study expose

them to a variety of fiction and informational genres while giving them the tools they need to navigate more complex structures and examine themes and point of view. Using the workshop model, students listen to a read aloud story that demonstrates comprehension strategies that they then apply to their independent reading lives. Extending their work in 4th Grade, students investigate the ways in which an author uses characters to convey universal themes. This character analysis then becomes a means for understanding the biographical subjects and perspectives in narrative nonfiction. In studying expository and hybrid nonfiction, students examine the different text structures authors use to convey ideas and how writers communicate main ideas and supporting details. Gathering in book clubs for an historical fiction unit, students collectively confront and discuss challenging themes presented in books during a historical time period, while analyzing how authors' perspectives affect style, structure, and other literary elements. Students then read and compare nonfiction text sets, using both articles and opinion pieces, about a debatable issue. During our fantasy unit, students dive into the world of fantasy, analyzing the use of symbols and the struggle between good and evil. At the conclusion of the year, students will use nonfiction texts to support their research in a social studies project.

As the children continue to develop as readers and their stamina builds, they learn to go beyond the concrete storyline and appreciate text on an increasingly abstract level. In their study of various genres, students develop the skills to comprehend increasingly complex texts and to recognize and contemplate the larger ideas communicated through literature. Students learn to summarize the main points of what they have read and use textual evidence to make logical predictions and insightful inferences. As they read, students are able to recognize the structure of a text and to understand the relationship of different parts of the text to each other and to the whole. They identify main ideas and are able to synthesize multiple ideas to arrive at original thought. In addition, students learn to describe the theme or the author's purpose and to cite supporting evidence in their explanations. They are also able to show how an author chooses information and employs a certain style and tone to serve his point of view. Students learn how an author uses specific reasons and evidence to support each idea in a text and precise words to create tone. When reading narratives, students pay special attention to how and why individuals, events, and ideas change. Students learn to compare and integrate information from multiple sources. Throughout the year, students continue to use decoding and context clues to read and understand unfamiliar words.

Writing

The Writing Workshop aims to teach students to communicate their ideas in a variety of written forms. In all units of study, the students follow the writing process of idea generation, planning, drafting, revising, and editing. They begin the year by writing a personal narrative from another point of view, using descriptive and dramatic details, and now requiring the development of a theme. Turning their focus to nonfiction, students choose a topic of interest to help them create a feature article. Building on their persuasive essay writing skills, students develop a research-based argument essay on a topic of their choice. Students write a memoir about one event that happened to them at school during their time at the Lower School. Students use their research to help them write a research report on a topic in social studies.

In 5th Grade, students build on their experience writing narratives and research reports to produce more complex and varied compositions. In their narrative writing, students enhance their writing with rich details that enliven the story while also conveying point of view and theme. Research skills take a major role during the year, as students focus on expressing ideas that they support with evidence. In writing opinion pieces, they hone their ability to express a view in a thesis statement and support it with solid reasons and evidence. In addition to printed texts, students independently use technology to conduct research on the Internet. Seeking out

multiple sources on a topic, they learn to assess the reliability of each one and work on taking effective notes. Then they either paraphrase or quote the information, always citing their sources. When planning and drafting, students learn to always keep their purpose and audience in mind. Finally, they strengthen the potency and clarity of their writing through revision and editing. They place particular emphasis on sentence fluency, word choice, grammar, punctuation, and spelling.

Mathematics

Throughout the year, students become fluent with formulas, algorithms, and problem-solving strategies through teamwork and self-exploration. The overarching themes of 5th Grade math include fluency with numbers and numeration, operations and computation, data, measurement, geometry, and algebra. Students develop an understanding of formulas and algorithms to solve problems involving whole numbers, fractions, and decimals using the four operations. Measurement concepts involving data, capacity, area, volume, and coordinate systems, as well as geometry concepts, including finding surface area, perimeter, density, and volume are explored throughout the year. Students are introduced to the concepts of variables and equations.

Students are encouraged to apply a variety of strategies to solve problems as they practice problem-solving skills in independent, small group, and large group configurations. Throughout the course of study, students demonstrate their ability to read and write whole numbers and decimals, identify place value, and use expanded notation. Students also learn multiple strategies to multiply and divide whole numbers, decimals, and fractions. After developing an understanding of fractions, they begin to discover the relationships among fractions, percentiles, decimals, rates, and ratios. Using their knowledge of input and output carts, they solve equations with one variable. Students investigate geometric properties to describe, compare, and classify plane and solid figures and apply formulas to find surface area, circumference, area, and perimeter of shapes.

Social Studies

During 5th Grade Social Studies, students gain a deeper understanding of the forces that shape countries physically and culturally by researching characteristics of geography and ancient civilizations. The goal is for students to engage in the process of inquiry by exploring the features of civilizations, how they are constructed, and have changed/developed over time to meet the needs of their members. At the start of the year, students will first learn about the principles of geography. This is meant to help students gain an understanding of how civilizations exist and are shaped through elements of the natural world. Students will then deepen their knowledge through analysis of the ancient civilizations: The Stone Ages/Mesopotamia, Ancient Egypt, and Ancient China. Some features that students will use to support their inquiries into ancient civilizations are: how they met the needs and concerns of their members, geography, government structures, job specialization, complex religions, social classes, writing, art, architecture, and public works.

Throughout the year, students will participate in both guided and independent inquiry projects to learn how to ask questions and research to make understandings. During inquiries, students will be challenged to be flexible in their thinking, use systematic writing skills to support their ideas, and carry out self-directed research into topics of interest. To do this, students will construct inquiry proposals, align research tasks to standards, develop artifacts, and create informational presentations. Community and the ability to work together will be a large part of our learning process throughout the year.

Science

Across the school year, 5th Graders focus on the three domains of science: physical science, earth science, and life science. The three units of study are Mixtures and Solutions, Earth and Sun, and Living Systems. In Mixtures and Solutions, students explore the structure, properties, and interactions of different types of matter. In Earth and Sun, students investigate the relationship between the Earth, Sun, and Moon. Finally, in Living Systems, students discover how living systems interact to continue life on our planet. Throughout each unit, students participate in collaborative, hands-on, and inquiry-based experiments that require students to collect and analyze data to help build theories about each topic. Students are also introduced to the basics of computer coding and 3D printing through various learning activities.

Mandarin

The main focus of this year is on developing confidence in communicative skills for students, while helping them to advance their reading and writing. Students should feel more comfortable speaking in the target language. As a class, we work on reading and constructing dialogues; interactions and conversations between classmates are encouraged and are part of the classroom experience. Students in 5th Grade think critically comparing customs and mannerisms between the United States and Mandarin-speaking places, as more cultural mannerisms are presented.

Spanish

Students begin the semester reviewing previous themes and basic verbs and begin to conjugate regular and irregular verbs more accurately while continuing to develop confidence in communication skills and reading comprehension. As students become more familiar with interpreting high frequency structures and vocabulary in various familiar contexts, they develop the skills to consistently write and speak in complete simple sentences. Students continue to regularly practice proficiency-based performance tasks in order to enhance their proficiency in listening, speaking, reading, and writing. Through language study, students also learn about the products, practices, and perspectives of Hispanic countries. In this course, students begin to learn how to use and maintain reference resources and technology tools that help them to be successful in their Spanish studies. Students learn to be culturally sympathetic by studying different Spanish speaking countries and exploring the identities of Spanish speakers through songs, poems, expressions, projects and lifestyles.

French

In this course, students review and build on previously learned material. Students begin to conjugate regular and irregular verbs more accurately and continue to develop confidence in communication skills. Students are encouraged to take risks in the language so that they may begin to express themselves freely and easily. As students become more familiar with the particular structures, expressions, and vocabulary in various types of conversation, they develop more complex writing and verbal skills to reinforce their communication abilities. Interacting with a partner and participating in a variety of activities in French is the basis for each class meeting. Students also learn about the culture, food, and traditions of people in Francophone-speaking countries using the Internet and by watching interactive-learning series.

Visual Art

Students in 5th Grade Art are encouraged to develop their ability to create and respond to meaning in visual imagery, to experiment and problem-solve, to express their own ideas and to reflect on their finished work and works in progress.

Our focus in 5th Grade centers around the questions, “what do I stand for?” and “How does art

relate to community?" The year begins with contemplating identity and artist voice. Students explore works by artists such as Glenn Ligon, and Barbara Kruger. When thinking about community, we explore the quilts of Gee's Bend, and mural works by Diego Rivera, Keith Herring, and Swoon.

Each year the 5th Graders are inspired in different ways and students work out methods to spread art throughout the public spaces of Léman Manhattan. Past projects have included a Matisse inspired paper cut-out mural and hidden sculptures throughout the building.

Music

Our 5th Grade musicians continue to progress in either Band or Chorus class. Within these ensembles, the students work to refine their musical literacy, musicianship skills, and collaborative skills in preparation for their continued studies in Upper School Music.

While most students in the 5th Grade Band will be second-year players, new students with no experience are also welcome. With differentiated instruction and a commitment to practicing, beginners can be very successful in the 5th Grade Band. Instruments offered for instruction are: flute, oboe, clarinet, saxophone, trumpet, French horn, trombone, euphonium, and percussion. This course encompasses ensemble rehearsals as well as weekly group (no charge) or private (for a fee) lessons.

In this class, students review and reinforce prior musical knowledge and technique through familiar tunes and basic sight-reading. They learn new rhythmic ideas and notes through new scales including Eb Major, and F Major in different patterns. Band members also learn basic conducting patterns in 4/4 time, the terms "up-beat" and "down-beat" in relation to conducting, and the ensemble skill of following the conductor. The students in this class are able to distinguish between melody, harmony, and bass line, and define the role each part plays in music. Fifth Grade Band students also begin to identify tuning problems and their solutions, and discuss how tuning is related to harmony in music. They learn and define different musical styles in preparation for challenging new repertoire. The 5th Grade Band studies and performs grade 1–1.5 concert band literature and performs at least twice per year.

Chorus

Students continue to develop their vocal range utilizing healthy vocal techniques from their previous year of training. However, new students are welcome in this class regardless of prior choral music experience. With differentiated instruction, beginners can be very successful. In 5th Grade Chorus, students learn new physical warm-ups and more complex vocal warm-up exercises. They strengthen their aural skills by critically assessing their vocal performance as a group and identifying areas for improvement. Students demonstrate the ability to maintain their own independent part while singing in 2-part harmony. They continue to read, write, and dictate tonal patterns, identify notes on the staff, read melodies, and describe different types of advanced intervals.

Physical Education

Fifth Grade students participate in both competitive and cooperative activities. Our curriculum offers a balance that allows each student to be successful throughout the school year.

Warm-up games and activities allow students to work on basic fitness concepts, both individually or in a small-group setting. Students participate in a variety of team-sport units, which include soccer, basketball, floor hockey, diamond games, and pickle ball. During these units, students review the rules of the game and discuss offensive and defensive strategies.

Students are reintroduced to positions for each team sport and how to play those positions. Students then participate in modified games that incorporate all of the skills they have learned. Fifth Graders also participate in an extensive fitness unit that promotes strength and endurance. Basic fitness concepts are introduced throughout the unit, including taking and monitoring your heart rate through and after an activity. Our cooperative units include scooter and adventure/strategy games. The circus unit incorporates eye-hand coordination, balance, and manipulation. Students practice juggling balls, manipulating devil sticks and spinning plates. The culmination of the school year is our Lower School Field Day. On this day, students compete in relay races and activities, displaying good sportsmanship and respect for classmates.

Swim

The year begins with a quick review of pool safety rules and routines. Once in the pool, students review skills learned previously and build upon those skills to enhance their stroke development, endurance and strength needed for lap swimming. Each lesson allows for practice of these skills and the time to develop the endurance needed to be a capable swimmer.

Each class lesson includes elements of distance and drill work that helps improve coordination and strength. Students participate in drill sets to help develop technique. Lessons include pull buoys and kickboards to help strengthen both the pulling and kicking phases of each stroke. Students learn three of the four competitive swim strokes in the same manner. We emphasize the value of long, relaxed strokes as well as patterns and rhythms. Swimming is promoted as a competitive sport and a lifetime activity.

Fifth Graders love our junior lifeguarding unit. Students learn the basics of being a junior lifeguard which includes treading water, surface diving, stride and compact jumping, assessing a scene, performing a reaching assist, and most importantly, learning how to keep themselves safe while helping others. Our last unit of the year is games and activities, which includes relay racing and water polo.