



The Co-op School Elementary Specials

The specials classes at The Co-op School are an essential part of our program, where important standards-based concepts are taught while supporting project work whenever possible. Here is an overview of what is being taught from year to year:

1. Spanish: The goal of our Spanish Program is to expose children to a second language and to various cultures, while fostering an interest and appreciation of the Spanish language. The children have Spanish language instruction 3 times in whole group and 1 time in small group. We teach the children through conversation, storytelling, music and games. They learn how to communicate basic concepts and develop a cultural understanding of Spanish-speaking countries first verbally and then in writing. Additionally, Spanish language is integrated in other specials and in our classrooms, by including Spanish songs, vocabulary and books.

Kindergarten: The children focus on the sounds of the Spanish language and experience hearing and speaking those sounds. They listen to, observe, and begin to practice sounds and sound blends through songs, games, stories, and art experiences. Students will communicate using memorized words and phrases around familiar topics related to home, school, and the community.

Communication:

- Learn basic concepts, such as greetings, introductions, colors, and numbers.
- Connect information taught in Spanish relating to personal experience.
- Participate, applying a variety of techniques, such as recall/repeat and respond/extend.
- Develop the confidence to take risks.

Culture Studies:

- Develop a cultural awareness of Spanish-speaking countries, focusing on the Tropical Rainforest.

Grammar:

- Exposure to appropriate subject pronouns.
- Exposure to proper word order.
- Exposure and recognition of gender and number of nouns.
- Exposure to the appropriate use of adjectives in agreement with nouns in gender and number
- adjectives.
- Exposure to the five question words: who? what? when? where? why?
- Exposure to the use of punctuation and accent marks.
- Exposure to the use of articles (definite and indefinite).
- Exposure to basic verbs.
- Exposure to the difference between "ser" and "estar."
- Ask and respond to preference questions (Me gusta/No me gusta).
- Exposure to the use of "hay."

First Grade: The students continue to be exposed to basic words and commands. They practice speaking, reading and writing basic Spanish vocabulary words. This work reinforces recognition and recollection as they continue to play games, sing songs, and utilize puzzles and toys now labeled in Spanish. They will communicate using memorized words and phrases to begin to talk about familiar topics related to home, school, and community.

Communication:

- Review basic concepts taught in Kindergarten.
- Learn additional basic concepts (likes/dislikes, feelings).
- Connect information taught in Spanish relating to personal experience.
- Participate, applying a variety of techniques, such as recall/repeat and respond/extend.
- Develop the confidence to take risks.

Culture Studies:

- Develop a cultural awareness of Spanish-speaking countries, focusing on Mexico.

Grammar:

- Introduction to appropriate subject pronouns.
- Exposure to proper word order.
- Introduction and recognition of gender and number of nouns.
- Introduction to the appropriate use of adjectives in agreement with nouns in gender and numbers.
- Introduction to the five question words: who? what? when? where? why?
- Introduction to the use of punctuation and accent marks.
- Exposure to the use of articles (definite and indefinite).
- Exposure to basic verbs.
- Exposure to the difference between "ser" and "estar."

- Ask and respond to preference questions (Me gusta/No me gusta).
- Exposure to the use of "hay."

Second Grade: Second graders continue to practice hearing and speaking Spanish by developing role-plays to act out with their peers. The children delve more deeply into reading activities, pronouncing words by using their knowledge of the alphabet and associated sounds. Written work that aims to reinforce their experiences with the Spanish language continues, using word card collections, and expands into writing short sentences. They will communicate using memorized words and phrases to talk about familiar topics - home, school, and community.

Communication:

- Begin to communicate in Spanish on topics with classmates.
- Connect information taught in Spanish relating to personal experience.
- Participate, applying a variety of techniques: recall/repeat and respond/extend.
- Develop the confidence to take risks.

Cultural Studies:

- Develop a cultural awareness of various linguistic and cultural practices of Spanish-speaking countries, focusing on the Caribbean

Grammar:

- Introduction to appropriate subject pronouns.
- Exposure to proper word order.
- Introduction and recognition of gender and number of nouns.
- Introduction to the appropriate use of adjectives in agreement with nouns in gender and numbers.
- Introduction to the five question words: who? what? when? where? why?
- Introduction to the use of punctuation and accent marks.
- Introduction to the use of articles (definite and indefinite).
- Exposure and introduction to basic verbs.
- Exposure to the difference between "ser" and "estar."
- Ask and respond to preference questions (Me gusta/No me gusta).
- Exposure to the use of "hay."

Third Grade: The children continue hearing, speaking, reading, and writing Spanish. Their writing starts to include simple phrases and beginning sentences.

Communication:

- Communicate in Spanish with classmates.
- Connect information taught in Spanish relating to personal experience.
- Express feelings, likes/dislikes, sharing anecdotes.
- Develop analytic techniques of new information by understanding the use of gendered articles, plural/singular, basic verbs, basic sentence construction.
- Participate, applying a variety of techniques: recall/repeat and respond/extend.
- Develop the confidence to take risks.

Cultural Studies:

- Develop an awareness of cultural, geographical and diverse characteristics of the Caribbean as well as various Latin-American cities.

Grammar:

- Review of appropriate subject pronouns.
- Introduction to proper word order.
- Introduction and recognition of gender and number of nouns.
- Introduction to the appropriate use of adjectives in agreement with nouns in gender and number.
- Introduction to the five question words: who? what? when? where? why?
- Review of the correct use of punctuation and accent marks.
- Introduction and review of the correct use of articles (definite and indefinite).
- Exposure and introduction to basic verbs.
- Exposure to the difference between "ser" and "estar."
- Ask and respond to preference questions (Me gusta/No me gusta).
- Exposure to the use of "hay."

Fourth Grade: In Fourth Grade, they begin to compose narratives in Spanish, putting together sentences and telling stories. Students communicate using words, lists, and simple sentences to ask/answer questions, to handle simple transactions related to everyday life, and to talk about subject matter studied in other classes.

Communication:

- Communicate in Spanish with classmates
- Connect information taught in Spanish relating to personal experience while connecting new information to previous knowledge.
- Develop analytic techniques of new information by understanding the use of gendered articles, plural/singular, basic verbs and tenses, sentence construction.
- Participate, applying a variety of techniques: recall/repeat and respond/extend.
- Develop the confidence to take risks.

Cultural Studies:

- Develop an awareness of cultural, geographical and diverse characteristics of the Caribbean, and various Latin-American cities.
- Introduction to the History of Spanish language.
- Study various linguistic and cultural practices of Spanish-speaking countries.

Grammar:

- Identify and utilize appropriate subject pronouns.
- Exposure to the difference between "tú" and "usted."
- Review of proper word order.
- Recognize and identify the gender and number of nouns.
- Recognize that adjectives agree with nouns in gender and number; appropriately use adjectives (adjective agreement).
- Identify and correctly use the five question words.
- Correctly use punctuation and accent marks.
- Recognize and correctly use articles (definite and indefinite).
- Demonstrate an understanding of basic verbs.
- Understand the difference between "ser" and "estar."
- Recognize that there are different verb conjugations (present tense only).
- Ask and respond to preference questions (Me gusta/No me gusta).
- Review of the use of "hay."

Fifth Grade: Fifth graders continue to learn vocabulary and basic grammatical structures through an interaction with music, science, and art. Students communicate using words, lists, and simple sentences to ask and answer questions, to handle simple transactions related to everyday life, and to talk about school and subjects areas.

Communication:

- Communicate in Spanish with classmates
- Connect information taught in Spanish relating to personal experience plus connecting new information to previous knowledge.
- Develop analytic techniques of new information by continue to develop the use of gendered articles, plural/singular, basic verbs and tenses, sentence construction.
- Participate, applying a variety of techniques: recall/repeat and respond/extend.
- Develop the confidence to take risks.

Cultural Studies:

- Develop an awareness of cultural, geographical and diverse characteristics of various Latin-American cities.
- Understand the history of Spanish language through various linguistic and cultural practices of Spanish-speaking countries.
- Get an introduction to Al Andalus (Spain).

Grammar:

- Identify and utilize appropriate subject pronouns.
- Exposure to the difference between "tú" and "usted."
- Review of proper word order.
- Recognize and identify the gender and number of nouns.
- Recognize that adjectives agree with nouns in gender and number; appropriately use adjectives (adjective agreement).
- Identify and correctly use the five question words.
- Correctly use punctuation and accent marks.
- Recognize and correctly use articles (definite and indefinite).
- Demonstrate an understanding of basic verbs.
- Understand the difference between "ser" and "estar."
- Recognize that there are different verb conjugations (present tense, simple past, and simple future).
- Exposure to complex verb tenses.
- Ask and respond to preference questions (Me gusta/No me gusta).
- Introduction to the use of "hay."

2. Creative Making: Our is to provide students with hands-on experience with the tools, concepts and challenges of art making and woodworking. We strive to emphasize creative thinking and problem-solving to foster self expression and introduce students to engineering concepts. Through an emphasis on woodworking, tinkering, arts and crafts, it is often an open-ended STEAM class for experimentation, making and inventing. It is a place for exploration, demystifying the underlying principles of "how things work" and how to conceptualize ideas and see them through to completion. Through guided exercises, challenges and play, students will learn to use a variety of tools and techniques. Using paper, wood, crafts, art and woodshop tools and techniques, we empower and encourage independent makers who can face creative challenges through planning and experimentation while developing an understanding of the physical world and the possibilities offered by hands-on crafting, creative expression and engineering. Projects deliberately integrate skills and techniques from both of our spaces in order to support students' creativity. Safety and stewardship of the spaces is emphasized —selecting appropriate tools and

techniques to bring their ideas to life.

Kindergarten:

Concepts and Skills:

- Projects that tie-in with the Kindergarten studies
- Wood shop safety
- Art studio stewardship
- Measuring
- Project planning and order of operations with blueprints and preliminary sketches at the start
- Architectural challenges, mixed media materials and techniques.
- Creative learning through deconstruction and reconstruction of the found materials and objects
- Woodworking skills
- Proper tool-use and purpose of the tools

Artist Focus: Contemporary artists with diverse backgrounds that chosen as a focus to anchor the work around collage, assemblage and construction.

- Jessica Stockholder: Sculpture, assemblage, color
- El Anatsui- Found objects
- Fernando Palma Rodriguez- Masks, animals
- Niki De Saint Phalle- Sculpture, work with clay
- Faith Ringgold - Portraiture

First Grade:

Concepts & Skills:

- Projects that tie-in with the First Grade studies
- More complex problem-solving skills using woodworking tools and techniques
- Further independence in planning and selecting different art, wood shop tools and techniques to bring their visions to life.
- Project planning in wood shop and art
- Further independence in tool and material selection— selecting the right tool for the task.
- Measurement: using tape measures, rulers and squares as well as developing project-specific methods of measuring to create more accurate deliberate designs.
- Hardware: hinges, casters, brackets, etc.
- Sculptural techniques to include clay, wood, wire and papier-mache.
- Designing a 3D models out of wood and other materials
- Line, light and shadow and pattern. Through close observation students will explore different ways of representing the world.

Artist Focus: These artists are chosen as a focus to anchor the work around scale models, light, shadow and pattern, portraiture, rituals

- Nick Cave - Rituals, Found Objects, Costumes, Masks
- Sarah Sze, Phoebe Washburn - Models
- Pierre Bonnard - Light and Color
- Yayoi Kusama - Pattern
- Faith Ringgold - Portraiture

Second Grade:

Concepts & Skills:

- Projects that tie-in with the Second Grade studies
- Greater accuracy in all aspects of woodshop (marking, cutting, construction) and more complex mixed media explorations.
- Making of multi-part plans, including design blueprint, cut-sheet, different views, etc.
- Measuring using tape measure, rulers and squares.
- Understanding projects as a complex system with multiple parts and how each part is important. How when a part of a system is missing it may not work as planned.
- Making models, constructions, miniatures.
- Observational studies in 2D media. Drawing, painting and mixing color to create works from observation.
- Exploring symbols, patterns and abstraction. Using movement and performative elements to understand symbols and how body situates itself in the space.

Artist Focus: Showing the work of artists whose work demonstrates the stories that are irrevocably woven into the cultural fabric of New York City.

- Robert Rauschenberg-multimedia artist, assemblage
- Julia Wertz, Will Eisner, Bill Griffith- Comics, Transit stories
- Sol Lewitt-Geometry, Patterns, Public Art
- Rebecca Solnit - Nonstop Metropolis

Third Grade:

Concepts & Skills:

- Projects that tie-in with the Third Grade studies
- Develop greater facility with measuring. Use measuring in both planning as well as building.
- Explore different methods of developing a project—using written plans and sketches students will create multi-stage projects.
- Consider how woodshop skill and techniques extend beyond the woodshop.
- Recognize and consider construction and creativity in the objects around us and in the built environment.
- Consider how art appears in the world and what its role is in their lives and in their community.
- Work large scale in 2 and 3D and create mural and life size sculpture

Artist Focus: Drawing on cultural history students will be introduced to the artists that are chosen as a focus to anchor the work around Chinese Artists, kinetic art, arts and crafts.

- Chinese Puppetry craftsman
- Leonardo Da Vinci
- Yue Minjun
- Jean Tinguely

Fourth Grade:

Concepts & Skills:

- Projects that tie-in with the Fourth Grade studies
- Develop full independence in the woodshop and art studio, becoming responsible for all aspects of studio operation—from set up (safety gear, etc) to material and tool selection, through cleanup.
- Develop more complex woodworking skills. Students will learn about and how to make mechanical joints (simple dowel joints, rabbets, 45°, mortise-and-tenon) and simple kinetic elements (levers, hinges, pulleys, etc.).
- Measuring and planning skills deepened— make more complex plans including multiple views, floor plans/aerial views, elevations, cross-section and cut-sheets.
- Experiment with sculptural techniques will include frame and skin construction.

Artist Focus: These artists are chosen as a focus to anchor the work around simple machines, kinetic sculpture, simple circuits, techniques of sewing and weaving.

- Jean Tinguely
- Rube Goldberg
- Fernando Palma Rodriguez
- Maria Martinez
- Native American traditional and contemporary craftsmanship

Fifth Grade:

Concepts & Skills:

- Projects that tie-in with the Fourth Grade studies
- Continue to develop full independence in the woodshop and art studio, becoming responsible for all aspects of studio operation—from set up (safety gear, etc) to material and tool selection, through cleanup.
- Further working on techniques of sewing, circuits, architectural structures, and simple machines.
- Collaborative performance production.
- Work on identifying what are important issues that we need to talk about today. We will consider the topics of freedom and independence, climate change, artificial intelligence and will create large scale props and wearables, write a script and learn about performance art and what it stands for.
- Learn how to plan and present their own projects and talk about their artworks.

Artist Focus: These artists are chosen as a focus to anchor the work around props, models, performance, script, and topics related to class tie-in themes.

- William Kentridge - Silhouettes, animation
- Hannah Hoch - Woman in art (Woman Suffrage)
- Chitra Ganesh- Radical imagination, woman in art
- Mickalene Thomas, Kerry James Marshall - Artists of color
- Lisi Raskin- Sculptural installation, Props
- Winsor McCay-Comics

3. Music: Music instruction occurs twice weekly in our Music Program, where they learn to sing folk, contemporary, and classic songs and participate in movement, rhythm, and instrument activities. K-5th Grades participate in whole-school sings twice a year, cultivating a natural comfort performing in front of others. Beginning in Third Grade, recorder and ukulele instruction starts. An optional Chorus is offered to Third, Fourth and Fifth grades and meets weekly. They focus on improving vocal skills, singing music in 2-parts and unison, and performing as an ensemble. Band is offered as an After-School enrichment through the Brooklyn Music School in 4th-6th Grades.

Kindergarten: will start to learn about different elements of music and experience them through contemporary and folk songs, finger plays, dances, listening activities, books, song tales, and creating their own ideas about music and compositions. They will also learn music supporting their class projects throughout the year.

- Vocal Exploration: 4 Voices: singing, speaking, shouting, whispering, matching pitch, and melodic contour.
- Music Comparatives: High/Low, Fast/Slow, Loud/Soft, Short/Long, Same/different, Smooth/Jerky, etc.
- Rhythm: Steady Beat and Beat vs. Rhythm.

- Creative: Organizing sounds, composing simple melodies and rhythms, improvisation with rhythms and melodies.

First Grade: *will start to identify and label different elements of music and experience them through contemporary and folk songs, finger plays, dances, listening activities, books, song tales, and creating their own ideas about music and compositions. They will learn music supporting their class projects throughout the year.*

- Vocal Exploration 4 Voices: singing, speaking, shouting, whispering, matching pitch, and melodic contour.
- Music Comparatives: High/Low, Fast/Slow, Loud/Soft, Short/Long, Same/different, Smooth/Jerky, etc.
- Melody: Identifying and reading sol, mi, and la.
- Rhythm: Identify the Steady Beat, Identify rhythms ta, ti-ti, and rest.
- Creative: Organizing sounds, composing melodies and rhythms, improvisation with rhythms and melodies.
- Musical Elements: two beat meter, measure, bar line, double bar line, repeat sign, and song form.

Second Grade: *will review first grade concepts and identify and label different elements of music and experience them through contemporary and folk songs, dances, listening activities, books, song tales, and creating their own ideas about music and compositions. They will also learn music supporting their class projects throughout the year.*

- Vocal Exploration: Matching pitch and melodic contour.
- Melody: Identifying and reading sol, mi, la, re, and do.
- Rhythm: Identify the Steady Beat, Identify rhythms ta, ti-ti, rest and the half note.
- Creative: Organizing sounds, composing melodies and rhythms, improvisation with rhythms and melodies.
- Musical Elements: Four beat meter, measure, bar line, double bar line, repeat sign, and song form.

Third Grade: *will review second grade concepts and identify and label different elements of music and experience them through contemporary and folk songs, dances, listening activities, books, song tales, and creating their own ideas about music and compositions. They will also learn music supporting their class projects throughout the year.*

- Vocal Exploration: Matching pitch and melodic contour.
- Melody: Identifying and reading sol, mi, la, re, do, and absolute pitch names on the treble clef.
- Rhythm: Identify rhythms ta, ti-ti, rest, half note and sixteenth notes.
- Creative: Organizing sounds, composing melodies and rhythms, improvisation with rhythms and melodies.
- Musical Elements: Four beat meter, measure, bar line, double bar line, repeat sign, and song form.
- Recorder: Identify and play B, A, and G notes with a variety of songs.
- Ukulele: Identify and play chords C, Am, G, and C7 with a variety of songs.

Fourth Grade: *will review third grade concepts and identify and label different elements of music and experience them through contemporary and folk songs, dances, listening activities, books, song tales, and creating their own ideas about music and compositions. They will also learn music supporting their class projects through the year, as well as sing songs in canons and 2 parts.*

- Vocal Exploration: Matching pitch and melodic contour.
- Melody: Identifying and reading sol, mi, la, re, do, high do, fa, absolute pitch names on the treble clef, and the pentatonic scale.
- Rhythm: Identify rhythms ta, ti-ti, rest, half note, sixteenth notes and the whole note.
- Creative: Organizing sounds, composing melodies and rhythms, improvisation with rhythms and melodies.
- Musical Elements: Four beat meter, measure, bar line, double bar line, repeat sign, and song form.
- Recorder: Identify and play B, A, G, C, and D notes with a variety of songs.
- Ukulele: Identify and play chords C, Am, G, and C7 with a variety of songs.

Fifth Grade: *will review fourth grade concepts and identify and label different elements of music and experience them through contemporary and folk songs, dances, listening activities, books, song tales, and creating their own ideas about music and compositions. They will also learn music supporting their class projects through the year, as well as sing songs in canons and 2 parts.*

- Vocal Exploration: Matching pitch and melodic contour.
- Melody: Identifying and reading sol, mi, la, re, do, high do, fa, ti, absolute pitch names on the treble clef, and the pentatonic scale.
- Rhythm: Identify rhythms ta, ti-ti, rest, half note, sixteenth notes and the whole note.
- Creative: Organizing sounds, composing melodies and rhythms, improvisation with rhythms and melodies.
- Musical Elements: Four beat meter, measure, bar line, double bar line, repeat sign, and song form.
- Recorder: Identify and play B, A, G, C, D, F, and E notes with a variety of songs.
- Ukulele: Identify and play chords C, Am, G, and C7 with a variety of songs.

4. Science: **In our Science Program, the students participate in standards-based hands-on investigations and exploration, providing them with a solid foundation in Earth, Life, and Physical Sciences. They learn to practice the scientific method and think like real scientists, utilizing meaningful inquiry; observation and exploration; developing and testing hypotheses; and analyzing new information, while further discovering their natural world.**

Kindergarten:

- Creating Experiments & My 5 Senses: All Kindergarteners will learn to implement the Scientific Method. This is the six-step process of creating and conducting an experiment (ask a question, gather information, make a hypothesis, experiment, observe and record results, share information). Your child will create experiments around our study of the 5 Senses.

- Living vs. Nonliving Things: Students will identify the features of living and nonliving things as well as what makes them alike and different.
- Animals: Students will study mammals. They will learn the basic characteristics that scientists use to classify all mammals. The Kindergarten class will select a mammal that they want to study in depth.
- Earth Stewardship: Students will create a mini landfill and explore the recycling process. They will begin to recognize the impact of modern human life upon the Earth and work to encourage others to conserve our natural resources.
- Ecosystems: The Kindergartners will develop a basic understanding of ecosystems and how they work. We will focus on ponds and woodlands. In class we will create a closed living water and land ecosystem in an upcycled 2 liter plastic bottle.
- Class-Developed Study: The class will develop a unit of scientific study based on their shared scientific interests.

First Grade:

- The Scientific Method and States of Matter: All First Grade Scientists will learn to implement the scientific method. This is the six-step process of creating and conducting an experiment (ask a question, gather information, make a hypothesis, experiment, observe and record results, share information). Students will create experiments and participate in lab work around our study of States of Matter (solid, liquid, gas).
- Animal Adaptations: Students will learn how animals can adapt over time to best survive their environments. Students will make observations on various animals traits and identify how each one supports their survival. Students will complete this unit by inventing a tool based off of an animal trait humans can use for survival.
- Earth and Sun: Students will learn how the Earth and planets in our solar system orbit the sun. Students will learn about the seasons and how the Earth's rotation creates our days and seasons.
- Matter: Students will explore and create various experiments to gain understanding of solids, liquids, and gases.
- Physics Exploration: Students will explore and create a series of experiments testing gravity, force and motion.
- Class-Developed Study: The class will develop a unit of scientific study based on their shared scientific interests.

Second Grade:

- Weather: Second Graders will learn to identify different cloud types and seasonal weather patterns.
- Plants: Students will develop an understanding of the parts of a plant, and the necessary factors needed to survive. Students will explore and create an experiment to determine the optimal growing conditions for plants in our classroom.
- Pollinators: Students will develop an understanding of various pollinators (bees, butterflies, bats) and their role in our ecosystem. Students will research a pollinator of their choice, learn about the role of agricultural engineers, and create their own hand pollinator.
- Water: Second Grade Scientists will experiment and observe the properties of water (cohesion, adhesion, and surface tension). They will implement their knowledge of the Scientific Method to create and conduct experiments that test the properties of water. They will also learn about the Water Cycle.
- Class-Developed Study: The class will develop a unit of scientific study based on their shared scientific interests.

Third Grade:

- Our Solar System: Students will learn basic facts about the planets in our Solar System. Students will learn about the structure of the Sun and Moon.
- Life Cycles: Students will develop an understanding that all living beings have a similar life cycle. We will investigate the life cycle of a plant through hands on exploration, and use digital resources to research and create a life cycle display of a living organism.
- Heredity: Students will be able to identify human and animal traits passed from generation to generation; with emphasis on how those traits can be influences on their environment.
- Biological Evolution: Students will be able to identify similar species and ways they've developed to best survive their environments. Students will analyze data from fossils to provide a comparison of organisms and environments long ago to their present day relatives.
- Human Body: We will compile the students' previous knowledge about the human body and then develop a study based on their questions. Students will explore the brain, heart, digestive system, skin, muscles, blood, germs and bones.
- Class-Developed Study: The class will develop a unit of scientific study based on their shared scientific interests.

Fourth Grade:

- Scientific Method and Writing Lab Reports: Students will conduct and create experiments with polymers (making different types of slime) as they learn to carefully follow the Scientific Method and write a Co-op School Lab Report.
- Earth Structure: Students will investigate and understand the Earth's structure and identify how events like earthquakes and volcanoes occur.
- Earth & Human Activity: Students will investigate renewable and non-renewable energy sources, how humans utilize each resource, and the positive or negative impact it has on the environment. Examples include wind energy, water behind dams, solar power, and fossil fuels.
- Rock Cycle: Students will study the rock cycle and learn to classify rocks as sedimentary, igneous, and metamorphic. They will observe and compare the properties of rocks and minerals.

- Biodiversity: Students will learn about scientific classification and they will classify plants and animals. Each student will also complete a research project about an animal.
- Class-developed Study: The class will develop a unit of scientific study based on their shared scientific interests.

Fifth Grade:

- Scientific Method: Students will review the scientific method and create lab experiments to illustrate their knowledge of the scientific process
- Biodiversity & Animals in an Ecosystem: Students will apply their knowledge of biodiversity from 4th grade, and apply their understanding to how the food chain and energy pyramids keep animals alive. Students will explore a variety of news sources to discover new animals discovered in 2018, and investigate where they fit into an ecosystem.
- Earth Systems: The Air: Students will investigate the geosphere, biosphere, hydrosphere, and atmosphere, and draw connections of how it relates to an ecosystem, and man made impacts of climate change.
- Earth Systems: Plants: Students will identify the basic structures of plants and define their purpose. Students will study Photosynthesis and conduct plant experiments.
- Earth Systems: Water: Students will discover various water sources around the world including oceans, glaciers, underground water sources, lakes and rivers. Students will develop an understanding of how ecosystems rely on various water sources.
- Ecosystems: Students will synthesize their knowledge of plants, animals, air, and water to design an ecosystem final project. Working in groups, students will identify an ecosystem type. Individual students will create a project about a specific animal within their group's ecosystem to be presented to the class with the intention of teaching their peers. . Students will also create their own closed living ecosystems to observe over a month.
- Protecting the Environment: Students will apply the information they learned about Earth's systems to investigate how humans have impacted the Earth, and steps we can take to protect the environment.
- Cells: Students will build cell models and learn about the basic structure of plant and animal cells. All living organisms on Earth are divided into cells, they are the basic structural unit for all organisms.
- Physics Exploration: The Universe: Students will deepen their understanding of mass, weight, gravity, force, and motion.
- Class-Developed Study: The class will develop a unit of scientific study based on their shared scientific interests.

5. Movement: The students have movement two times a week where overall focus is on organized games, activities, sports and play, including individual movement challenges and group games. Games include soccer, kickball, jump rope and even invented games. They often work on safety, understanding instructional language and learn about various movement concepts. Students are also introduced to basic manipulative skills and learn safety, respect and instructional language. While learning choreographed movements, we encourage each child to have fun and be engaged.

Kindergarten:

- Students will begin to take the locomotor skills learned in Pre-K and apply them to fitness movement and exercise
- Students will begin learning how to perform underhand and overhand toss to objects and through target games such tic tac toe
- Students will begin to learn how to strike objects using their hands
- Students will begin to learn how to chase, flee, and dodge in a safe space
- Students will learn basic sports skills such as dribbling a basketball, kicking a soccer ball, jumping rope etc
- Students will learn their muscles in a song

First Grade:

- Students will begin to take the locomotor skills learned in Kindergarten and apply them to fitness movement and exercise
- Students will begin learning how to perform to toss and catch to a partner at certain distance apart
- Students will begin to learn how to strike objects using implements
- Students will begin to learn how to perform fitness skills such jumping jacks, sit ups, etc
- Students will learn basic sports skills such as basketball, soccer, jumping rope, bowling, etc
- Students will learn their muscle groups through a song

Second Grade:

- Students will learn health and fitness related skills, such as jumping jacks, push ups, abc planks, etc
- Students will begin to understand the benefits of cardiovascular fitness and learn how to connect cardiovascular fitness to different types of activities
- Students will learn to perform sport skills such as basketball, soccer, bowling, nets sports and volleyball
- Students will learn these sports skills and understand how to play a game like situation to get a better understanding of the game is played
- Students will learn how to perform to take heart rate and understand to apply heart rate to warm up activities

Third Grade:

- Students will learn health and fitness related skills, such as jumping jacks, push ups, abc planks, etc

- Students will be learning a variety of muscular and cardiovascular activities
- Students will learn and understand how to play certain sports basketball, soccer, bowling, nets sports and volleyball
- Students will learn these sports and understand how to play a game like situation through smaller games
- Students will learn how to take heart rate during warm up activities and write their results down each week
- Students will be performing some cross curricular activities

Fourth Grade:

- Students will learn health and fitness related skills, such as jumping jacks, push ups, abc planks, etc
- Students will be learning a variety of muscular and cardiovascular activities
- Students will learn and understand how to play certain sports basketball, soccer, bowling, nets sports and volleyball
- Students will learn these sports and understand how to play a game like situation through smaller games
- Students will learn how to take heart rate during warm up activities and write their results down each week
- Students will be performing some cross curricular inside the classroom and woodshop
- Students will be learning about nutrition through various types of games

Fifth Grade:

- Students will learn health and fitness related skills, such as jumping jacks, push ups, abc planks, etc
- Students will be learning a variety of muscular and cardiovascular activities
- Students will learn and understand how to play certain sports, such as basketball, soccer, bowling, nets sports and volleyball
- Students will learn these sports and understand how to play a game like situation through smaller games
- Students will learn how to take heart rate during warm up activities and write their results down each week
- Students will be performing some cross curricular inside the classroom and woodshop
- Students will be learning about nutrition through various types of games
- Students will understand the relationship between physical activity and individual well being
- Students will work constructively with others to accomplish a variety of goals and tasks
- Students will demonstrate the ability to apply the decision making process to physical activity

6. Library: *During our weekly teacher-led library classes we focus on creating a love and enjoyment of books. With the support of our Literacy Specialist, the children learn the rules and procedures of responsible library users. They learn how to select, checkout, and care for books. While reading award-winning books they talk about how to distinguish between fiction and nonfiction books, about the parts of a book and story elements. They read fairy tales, folktales, fables, fantasy and biographies, identifying where stories take place incorporating geography concepts. They identify what an author and illustrator does and make predictions about a story based on pictures. They explore reference materials and learn how books support the research process.*

7. Technology: *Technology is an important tool for learning, research and communication. It supports project-based education by incorporating carefully curated learning tools and increasing research skills while differentiating instruction for the needs of each child. We use it to extend project work with virtual field trips and educational videos. For the first years, technology may be used simply to connect to an expert via Skype or take a virtual field trip to a far away place. Starting in Second Grade, the children begin to learn keyboarding skills with our Chromebooks. They also learn about video creation for culminations, Google Docs and The Cloud. They create and share documents. These skills continue in Third, Fourth and Fifth Grades and develop further as they begin to use online search engines to support research, learn about finding reliable websites, what cyberbullying is and how to edit/peer edit their work. Older grades have televisions in their classroom meeting areas as updated projectors or document cameras, supporting learning by showing and sharing visuals images, videos and documents.*

8. Health + Wellness: The Health and Wellbeing Program is an 8-week program for 3rd, 4th and 5th grade that allows students to explore a variety of health and wellness topics. These sessions will be led by the school social worker, Hannah, and will focus on creating a safe and supportive environment to provide students with accurate information and clear communication skills around human development, community and socioemotional wellbeing. *The 4th and 5th grade Health and Wellbeing Program will start mid-October, and the 3rd grade program will start in the spring.*

Specific topics include:

3rd Grade: celebrating uniqueness, navigating peer conflict and cliques, boundaries and personal space, healthy bodies and body image, gender roles, coping skills and self-care

4th Grade: diversity and inclusion, exploring sense-of-self, standing up for others, boundaries and consent, puberty, gender roles, coping skills and self-care

5th Grade: diversity and inclusion, identity development, bullying and peer-pressure, consent, puberty, gender and sexuality, reproduction, coping skills and self-care