



**2008 – 2009
Curriculum Guide**

Educational Program

This is an updated version of our MCS Curriculum Guide. A lot has happened during the past five years: We've restructured our Upper School and added a seventh and eighth grade, strengthened our "specials" programs, developed an enrichment after-school program, and expanded our outreach into our community. This past year, we also expanded our art, music, technology, and physical education offerings in the Upper School (grades five through eight) by creating an elective program. Now, students can customize their technology studies by opting for robotics or photography. They can take drawing or fiber arts, or they can dance or hone their skills playing volleyball.

The challenge has been to support change while we maintain and deepen our commitment to a child-centered, thematic curriculum. Our thematic curricula continue to build systematically around an expanding notion of community, beginning with a focus on self and then others in nursery, to the classroom and the school in pre-kindergarten through first grades, to larger community in second (tribe, hive, and bird communities), to immigrant community in third grade, colonies to country in fourth, societies over time (the ancient and medieval world cultures) in fifth and sixth, and global studies, alternating with the American Experience, in the seventh and eighth. This guide will describe the richness of our academic program and the ways our curricula weave language arts, math, science, the arts, and student choice around a core theme. These pages illuminate our dedication to educating children for a life of self-direction, intellectual curiosity, and a healthy interdependence. Our mission is to develop the intellectual abilities and encourage the emerging social responsibilities of each child, from the very youngest in the nursery programs to the adolescents in our eighth grade.

Any description of a school's educational program is, of necessity, to be a "work in progress"; what we teach changes from day to day. But some things are enduring. The strength of our academic curriculum, coupled with our social curriculum, helps each child discover his or her own strengths and interests in a safe, supportive environment. This is a community dedicated to knowledge while practicing the values of cooperation, leadership, and acceptance. We remain a multigenerational community of learners.

October 2008

Early Childhood Nursery through Kindergarten

We believe that children develop and learn best in the context of a community where they are safe and valued, where their needs are met, leaving them feeling secure and respected. In our classrooms, social growth is at the forefront of our curriculum.

Children in the early childhood program are encouraged to engage actively in their surroundings through a rich variety of work-time experiences including projects, problem solving, and ideas to explore and investigate. Children interact with materials, create freely, invent, research, pretend, express themselves in countless ways, and explore language. Our classes study topics and themes over time and in tune with the interests and needs of the children. Our classrooms are furnished with attractive, challenging materials. Children have ownership of the space they spend their day in.

Teachers provide children with time and support to make learning meaningful and to develop deep understandings. We recognize that children learn at their own pace and with their own learning styles.

Literacy

We help children develop a foundation for reading in many ways. First, children fall in love with language because language enriches our lives (stories, poems, explanations, conversations, directions, friendships, fantasy play). We surround children with written stories, fairy tales, poems, mysteries, nursery rhymes, fables, and non-fiction. Our classrooms also have “Big Books”, big picture books that we read to the children and make available for them to pick up and 'read' on their own. Using these books, teachers model good reading practices daily. In the older early childhood grades, children learn to predict ideas about the story and talk about story and book elements. We discuss character, plot, and setting through shared reading experiences. There are many other things to read besides books in our print-rich classrooms: labels, schedules, names, calendars, charts, lists, recipes, lyrics. As the children get older, they are very much involved in the creation of the text written on our walls and refer to it constantly. Children learn to rely on print to see where to place things, identify who does which jobs in the classroom, and know the daily schedule. Many classrooms also have a listening center, a quiet spot in the room where a child can listen to a story and read along with the book in hand.

This rich environment of words helps children to learn to recognize letters and names in print, notice the beginning and ending sounds of words, practice left to right directionality of reading, and begin to develop a sight word vocabulary, with teacher help, and sometimes without it. By kindergarten, the children have a firm collection of stories that they know and enjoy. Their phonemic awareness is strengthened through songs, rhymes, hearing and saying syllables, games, and letter investigations. One way teachers use to help children to learn their letters is to feature a certain food for every letter of the alphabet (for instance, a “C” day could mean celery or cauliflower). We use books and other literature related to theme studies. When a child is ready, we begin to work with structured phonetic readers. The Reading Buddy program with the Upper School students makes reading an important social process that is also very pleasurable. Both the younger and older children look forward to this special time together. The Reading Buddy program provides opportunities for older students to read

meaningfully to their younger buddies and younger children an opportunity to see older children who are strong readers. Children become readers of text at different ages (some as early as two and others as late as six or seven). Our job, as teachers, is to observe each child and help everyone move ahead at the pace that they are ready for.

Throughout the early childhood classrooms, children are actively involved in communicating with each other. Materials in support of writing are found everywhere as is the written word. Teachers model writing and its conventions at every stage of writing development.

At all levels, children are encouraged to make the connection between the spoken and written word and to use symbolic representation (e.g., drawing, numbers, letters, sounds, print). As children move through the various grades, their level of sophistication grows along with other aspects of their development.

The youngest children primarily tell their stories through illustrations. Their attempts at making meaning (through scribbled shapes, for instance) are honored and celebrated. We encourage them to express themselves by taking down their dictated messages and stories. As children progress through the early childhood classes, they learn to write the letters of the alphabet, both upper and lower case. They learn to write their names. They write signs, labels, and stories using invented spelling and incorporate their growing vocabulary of sight words.

When they're ready, we introduce children to writer's workshop, a formal writing time in which the children work on writing stories, both fiction and non-fiction, using invented spelling and drawing. They may also be asked to keep a journal in which they record the important moments of their present lives. Children will share their stories with their peers through playwriting, sometimes referred to as Writer's Theater. Children are provided with materials to make signs and labels for block buildings, write spontaneous notes and letters or stories, make science observations, and record recipes they have invented, among other activities. Children are encouraged to work both collaboratively and individually.

Mathematics

Math is a constant in young children's lives. Through their everyday activities, children explore spatial relationships, shape recognition, counting, graphing, data collection, informal measurement, estimation, simple computation, greater than/less than, money, time, odd/even, and mapping.

Math studies begin with concrete materials. Some of the activities are student initiated, and some are teacher initiated. In each case, the teacher observes and helps the child extend their ideas about how numbers work.

Kindergarten students explore various strategies for problem solving including drawing and talking about methodologies in order to find solutions.

Theme

An essential aspect of theme studies in the Early Childhood programs is enabling children to share, work together, and resolve conflicts in their communities. Social studies is based on children's daily experiences and their developmental needs. Play with other children, materials and ideas provide outlets for children to work through

questions they may have, feelings they are exploring or their relationships with friends, teachers and families. Play also prepares children for the future when abstract and symbolic thinking will emerge.

In addition to using the environment and the daily context of the classroom as a basis for social studies work, teachers undertake more ambitious thematic studies. In the youngest classes, the interests and various questions of the children become the basis of explorations and studies. As the children develop and mature, they engage in core theme studies through which they explore the world outside their classrooms. Studies have included trees, water, and animals. We encourage children to “become” what they are studying and use a wide variety of materials, literature, and experiences via class trips to engage more thoroughly with their themes. Field trips enable young children to extend their discoveries and explorations beyond the classroom and help to enhance the children's understanding of the world.

Science

Children are natural scientists. They want to explore the natural objects and materials around them. Tactile experiences (for instance, investigations of sand, water, dirt, plants, rocks, sorting and classifying objects) are important in studying the “what, how and why” of nature. Children observe interactions of materials, seasonal changes, plant and animal life cycles. They cook, grow seeds, watch decomposing matter, experiment with magnets, mix paint colors, make variations of play dough – they are involved in many activities that help them understand the world around them. The older children begin to record their observations through pictures and words; by questioning, researching, classifying, forming generalizations and testing them, these children begin to learn the scientific process of discovery.

Art in the Classrooms

Art projects are a natural part of our classroom activities. These projects encourage free exploration and experimentation, creative expression, and growing control of a wide range of art materials, which include crayons, markers, paints, watercolors, glue, ice, play dough, cornstarch, clay, chalk, pastels, papier mache, tissue paper, fabric, wood, beads, wire – all sorts of stuff! The children start with a limited palette of paints (primary colors-yellow, red, blue, white), which will necessitate mixing their own colors. Children learn to identify colors and textures and solve problems creatively as they develop an aesthetic awareness. The art flows from the children's imagination and natural love of experimentation, perhaps in response to a particular medium or material. As the children get older, art projects may also grow out of a theme study; while their fantasy and imagination are still involved, a purposeful final product is created. In pre-k/k, children begin working with an art specialist who guides them in learning specific techniques. Children's work is constantly on display inside and outside the classroom. This encourages children to appreciate, discuss and learn from one another's work.

Music and Movement/Large Motor Skills

Music and movement provide yet another medium for children to express themselves and reinforce, in an integrated way, the academic curriculum. Children develop new ways to express their feelings and physical abilities through music and movement.

Children learn songs daily and make up their own songs, moving and dancing to the rhythm. They explore all facets of music in a non-formal setting. Dance, drama and

outside play help children to hone their large motor skills, to become aware of their bodies and personal space, and to develop cooperative imaginative play. Our pre-kindergarten/kindergarten classes work with the music, dance and gym teachers.

Spanish

Nursery through Kindergarten

Young children learn in several languages easily. Spanish instruction at the Co-op begins informally in our Nursery and Early Ages classes as the children work with bilingual teachers whose first language is Spanish to learn basic conversation through songs, poetry and crafts. The early childhood Spanish teachers work with the head teachers as well as the upper school Spanish teacher to incorporate themes that children are exploring in their classrooms and to include the children in school-wide Spanish activities.

Health

PreKindergarten – Kindergarten

These grades are introduced to the structures and functions of the digestive system, heart, bones, and muscles. Students practice hand washing and learn how germs are spread. Fire, home and water safety are taught and the 911 emergency system is introduced. The importance of good nutrition is reviewed. A dentist visits yearly to speak about dental hygiene.

Library

As in all of the Co-op classrooms, the library is a place where children have a chance to develop a love of reading and further their literacy skills. Children are exposed to all kinds of books – fantasy, animal facts, directions for craft projects, and historical fiction to name just a few. Choice plays a large role in library sessions as children are asked to help choose read-alouds, to design activities, choose research topics, and to make their own selections from the library collection. In addition to the school library, each classroom has an extensive library of early childhood literature.

Nursery and Early Ages

Teachers of the younger children use the library to choose books that support classroom themes and individual children's interests.

PreKindergarten - Kindergarten

Weekly visits to the library often consist of a shared reading experience such as a poetry chart, big book or a read-aloud story themed to a current classroom experience, holiday, season, or an idea that has grown from another book read together, and a related follow-up activity. Drawing and sequencing parts of a story, writing a book modeled on a read-aloud, mural-making, origami, creating games and puzzles, and dramatizing stories are all activities that PreK/K and first grade children do throughout the year. Children always have time to browse for books to check out to add to their classroom libraries or to take home.

The Physical Education Program from prekindergarten through eighth grade is described at the end of this guide.

Primary Grades Grades 1-4

The guiding concept behind the integrated curriculum themes in the primary years is Community. This important idea is expanded upon in different ways appropriate to the different developmental levels of the children in each class. At the Co-op, we continue to honor childhood as children grow older, and the foundation of all curricula is the social and emotional well being of each child. We support children in finding and strengthening their individual voices. We nurture independence and responsible decision-making. To this end, we give time and attention to social problem solving in whole groups, in small groups, and with individual children. Our goal is to build relationships within a classroom community that actively supports each child in their learning because we believe that learning is as much a social process as an individual one.

Children in the primary grades are powerful protagonists in their learning. From ages six through ten, children continue to be concrete in their thinking. The work in the primary classrooms shows an abundance of hands-on materials and personal and group projects that meet children's needs as learners in all disciplines. With the gradual solidification of skills comes greater abstract reasoning capacity. The self-referential learning of the early years can now be directed towards an increasingly sophisticated understanding of the individual's relationship and responsibility to a community.

First Grade

Literacy

First Graders can sometimes be anxious about reading when they enter class. Our primary concern is to ensure that our students feel successful in their reading endeavors and that they feel strong and powerful as readers. Great care is taken to provide students with activities and assignments that enable them to view themselves as readers in the class. Accomplished readers are encouraged to read more challenging work and begin research projects. Each child will start doing research when he/she is ready. Author studies are an important component of our literacy program. Each year a beloved author is chosen and studied in depth. For example, recently the First Graders explored books written by Leo Lionni. We read aloud, individually and in small groups. We analyze these books by charting similarities, differences, main idea, artwork, and story components, such as character behavior and development, setting, plot and, of course, our favorite parts of the story. First Graders discover, read, and discuss a variety of genres, such as fiction, non-fiction, biography/autobiography, fables, fairy tales, and poetry. Students are taught how to choose books that are "just right" for their personal reading ability and they are encouraged to "read for pleasure" throughout the day. Trade books are used in the classroom to introduce and strengthen reading skills such as prediction, use of illustrations, context, phonics, comprehension and much, much more.

In First Grade, writing can be found everywhere and is presented as necessary and informative for daily living. First Graders are becoming more reliable and accurate in their ability to communicate through writing. Inventive spelling is not only accepted but encouraged. Word books are provided for each child. These books provide a support system for children who are concerned about "getting it right". First Graders are

becoming more aware of sound-symbol relationships. They are also more prepared to look for letter patterns in words. When necessary, dictation is taken from children. We do not want children to become so encumbered by writing and spelling that they become paralyzed in their efforts to record their thoughts on paper. Children write fiction, non-fiction, and poetry. They write in useful and meaningful ways each day; for example, they write notes, directions, comments about books, labels, signs, and they record their thoughts in math journals and science observation books. They complete research using the internet, books, and live sources. They conduct interviews and organize information. Their work is edited carefully for capitalization, spelling, and punctuation. The children write in all subject areas; a multitude of homemade books are published each year and placed in our class library for consumption. We teach children penmanship, how to space and the forms of writing. Children study word families, which strengthens them as spellers. They sew, which builds hand-eye coordination and fine motor skills.

Mathematics

In the First Grade, a large variety of math manipulatives is used ranging from manufactured materials such as pattern blocks, base ten blocks, tangrams, and unifix cubes to everyday objects such as stones, beans, clothing, cooking equipment, and, of course, fingers. Children at this age are concrete learners. They utilize their senses to take in information. Students are encouraged to explore math concepts by touching, seeing, listening, speaking and even writing about their mathematical thinking. Children routinely share their strategies and explorations regarding math work and are required to support their ideas with physical evidence. This is done informally during meeting time and in a more formal manner using math journals. Games and activities that require problem-solving strategies abound, as do games and activities that relate to the concepts of number sense, number operations, geometry, patterning, probability and statistics, measurement, logic and reasoning. Many of our mathematical investigations are based on our theme study. First graders learn to count accurately and to conserve number. They learn to recognize patterns and make predictions. They are beginning to use addition and subtraction in their calculations. They learn to manipulate parts to fill in wholes (using tangrams).

Theme

The overarching theme for the First Grade is Community. Teachers and students work together to develop a curriculum every year that addresses the specific needs and interests of the children both as individuals and as a group. To do this, we listen to and watch the children carefully as we get to know them all deeply and personally. We try to understand our students emotionally, observing how they interact with one another, what their interests are, and what ideas and activities they find stimulating and intriguing. We assess each child's individual areas of strength as well as areas that may require more time and attention to develop. We seek out community-related topics that match these specific interests and temperaments and we begin the planning process together as a group. In past years, our themes have included a study of the Co-op itself (past and present), a unit about Caring People, another unit about Loveys (beloved objects such as teddy bears, etc.), and also Friendship. Each theme incorporates major disciplines of study such as literacy, mathematics, science, and the arts.

The Arts

The arts are an important component of the First Grade curriculum. Although each study has its own rich curriculum, we often work closely with our arts teachers to provide an integrated program for our students. For example, when our class studied Eric Carle recently, our art teachers explored the medium of collage with our students. First graders attend art, Spanish, gym, library, and music each week. The arts are also incorporated into the classroom. Children are encouraged to explore a variety of mediums in the art area. We sing or listen to music throughout the day.

Field Trips, Culminating Events, Extensions

The First Grade is committed to extending children's experiences outside of the four walls of the classroom. Trips early in the year are designed to create shared experiences, such as pumpkin picking in the fall. Each year, we find our way to a small planetarium, go maple sugaring, visit a museum, enjoy the theater, and pick strawberries. Other trips are chosen, as children's interests and inquiries develop. At the end of the school year, a culminating celebration is enjoyed by all. During this day long celebration, First Graders are invited to show the entire school community what they have achieved during the year.

Other projects we have enjoyed are related to community service. In the past, we devised and followed through on a plan to collect legos for victims of Hurricane Katrina and succeeded in collecting over 50,000 legos. We also collect pajamas through the Pajama Program for children who go to bed at night in their clothes because they do not own a pair of pajamas. These projects help the children to view themselves as members of the world community.

Second Grade

Literacy

The many and varied literacy experiences in second grade focus, as they do in every grade, on making meaning through reading, writing and speaking. Significant changes in brain development that occur around the age of seven mean that children of that age are constantly working to reevaluate themselves and their experiences in the world in light of the new ways their brains process information. These changes can be seen in the ways they can begin to empathize with characters in literature (and in their lives) who are quite different from them.

The teacher reads aloud to the children every day from rich and deep works of literature such as *The Tale of Despereaux* by Kate DiCamillo. The discussions that come from those readings develop not only children's understanding of other people but their love and appreciation for the beauty of the English language. They also work in small groups reading and discussing other books, and have considerable time for independent reading. Skills needed for both decoding and comprehension are taught both in individual conferences with teachers and while working with literature in their small groups.

Meaning is also at the heart of the writing program, where children tell the stories that are important to them. Beginning with personal narrative and moving into writing poetry, non-fiction and eventually fiction, children come to know themselves and each other better through the writing process. They use their working knowledge of sound/symbol

correspondence to write signs, stories, poems, thoughts and memories with both their invented spelling and the spelling rules they have internalized. In the course of the year, with the help of the spelling program, which allows them to make sense of the patterns of language, they make a transition to using more standard spelling in their first draft writing.

There is a strong emphasis on the revision and editing process. Children conference with a teacher frequently and revise for organization, clarity, and power of language. When both feel the work is complete, they edit for spelling, capitalization and punctuation. At that point they illustrate, 'publish' and present the finished work to the class. It is a satisfying and empowering creative experience.

Mathematics

In the second grade, children continue to work with concrete materials to develop mathematical concepts. They expand their ability to translate these experiences into standard mathematical language. In their work with Number, they develop their knowledge of place value in whole numbers up to 1000, and work with addition, subtraction and beginning multiplication, division and fractions. They are offered varied experiences with algebraic patterns and functions in the number system.

Children also work with Data and Statistics, collecting, organizing and displaying information that interests them. They extend their understanding of the vocabulary and concepts of Geometry by building and finding combinations of shapes within other shapes, and working with both reflective and rotational symmetry. They explore Measurement in length, weight, capacity and time, and also continue their work with money.

Theme

The integrated themes in second grade reflect the primary grades' guiding concept of community in a way that is particularly appropriate to the interests and development of seven and eight year-olds. We look closely at communities in nature, and our work comes from the disciplines of both science and social studies. In the fall, there is usually a study of an animal community like wolves, bees, ants, or of an ecosystem (like the Eastern Woodlands) and the ways the lives of different animals are interconnected within their ecosystem. Children become what they study, and take on a role of a particular animal. They research every aspect of 'their' animal, creating detailed masks, writing poems, books and plays reflecting and expanding their understanding of that animal in its community, and comparing that community to the human ones they know.

In the second semester, second graders begin a cultural anthropology study of a community of human beings who live, or used to live, in a very close relationship with their environment. There have been studies of the traditional life of the Inuit people of the Eastern Canadian Arctic, the Lenape people who originally populated New Jersey, the Maasai people of the Serengeti in East Africa. Again, the children become what they study, and research and respectfully take on the role of a member of one of those communities. The element of fantasy, of pretending, comes so naturally to children of this age, and deepens and enhances all this work. They grow and cook the food of these peoples, sew clothing, learn their beliefs and their art and music and stories, and make art and music and write stories of their own. The understanding of a people with a way of life very different from their own truly becomes a part of them.

The Arts in the Classroom

Second graders work with the arts in several different contexts. The Co-op's Visual Art, Music and Dance departments have their own exploratory curricula, where children learn to work with those media in wonderful new ways. There is also exploratory art and music that happens in the classroom, as part of their choice period. In addition, the classroom teachers collaborate with the specialist teachers to enhance the theme studies, with dances and music created to include in the plays written by the children, and studies of artists expanding work in science and social studies.

Field Trips, Culminating Events, Extensions

Field trips connected to our theme studies are scheduled throughout the year because of their ability to enrich and stimulate this work. We travel in the metropolitan area to many museums, zoos, science centers, nature preserves and theaters.

Culminating activities conclude each semester's major study and often consist of a performance of plays, songs, poetry, and dances created by the children in the course of the work, along with a "museum" either in the classroom or taking over the grounds of the school. In these museums, art, writing, projects, activities and food connected to the study are offered to the rest of the school and the families and the children are the docents.

The Egg Drop is a much-loved traditional second grade project at the Co-op, and an exciting part of our Earth Day celebration in April. Each child invents a vehicle designed of recycled materials to protect a raw egg when they ceremoniously drop it off the second floor fire escape in the presence of the entire school population, cheering them on from below.

Third and Fourth Grades

Literacy

By the third and fourth grades, children are often competent decoders. The work of literacy begins to focus more on meaning. Literacy is both integrated into all areas of the curriculum and explicitly taught. Read-Alouds, Shared Reading, Guided Reading, Independent Reading, Book Clubs, and Partner Reading are all used to explore the content and structure of literature. Mini-lessons focus on the elements of story and the techniques readers use to analyze and understand stories. In writing, we use the Writing Workshop model. The teacher develops the student's voice through modeling. Children craft pieces through conferencing, revising, and editing. These pieces are then published and celebrated by the classroom community. Our word study, Word Work, focuses on spelling patterns, high-frequency words, the structure of words (prefixes and suffixes) and personal words pulled from the children's own writing. Many strategies of exploring and working with words are implemented.

Mathematics

At this age, children are still often concrete in their thinking about mathematics, but they are beginning to move to abstract thinking. We use manipulative materials to help children explore their ideas and then develop their ideas more fully through discussion and writing. Students gain extended experience with core concepts and skills through the processes of problem solving, reasoning and proof, communication and representation. In groups, with partners, and independently, children play games,

collaborate, discuss strategies, and record their thought processes. Communication plays a large role in developing critical thinking and mathematical skills. We encourage students to find multiple methods to solve a problem. Grade three focal points include: developing understanding of multiplication and division, fractions and fraction equivalents, properties of two-dimensional shapes, understanding place value in numbers up to 10,000 in various contexts, and data analysis. In addition to continuing with grade three concepts, grade four focal points include: developing quick recall of multiplication and division facts, fluency with whole number multiplication, developing an understanding of decimals and the connection between fractions and decimals, developing an understanding of area, determining the areas of two-dimensional shapes, and understanding place value in numbers up to 100,000 in various contexts. Patterns and relationships are stressed in all strands.

Third Grade

Theme

Third grade themes are larger topics of study, which have a social studies or science base. Themes are especially valuable for children in undertaking in-depth study of real-world topics.

Theme teaching allows for curriculum integration. Through theme, language processes become tools of inquiry and expression.

The third grade themes take the children from the earth to the heavens. The earth, the moon, and the sun become intimate friends to the children. This year our social studies theme will take us right around the corner to Walnut Street, to meet our neighbors. The children will become ethnographers as they study this particular slice of America. The Walnut Street study focuses on history and change, the world of work, and local and global connections. Walnut Street is a rich example of culture and immigration.

Arts Integration in the Classroom

What possibly makes us human is our ability to express ourselves. Expression is not linear. It can be dance; it can be visual; it can be song; it can be a clay creation. Giving children many options to express themselves and their understanding of the content is an integral aspect of the third grade curriculum.

Field Trips

Various museums, field visits and visiting experts are utilized to support the curriculum. Morris Museum representatives come frequently to make presentations featuring the earth's crust, weather and quilting. Owls come to visit through Raptor's Trust before we write fiction and non-fiction pieces about owls. Digging for rocks is always great fun.

Fourth Grade

Theme

Social Studies and Science are woven through our curriculum like strands of a quilt. In fourth grade, our themes have included: Colonial Farm Life, The American Revolution, Ecology, Wetlands, Water Pollution, Local Agriculture, Local Watersheds, and Environmentalism.

Arts Integration in the Classroom

We have many opportunities to work with the arts in our classroom, and use many different art forms to express what we are learning. Children write and perform plays and musicals, paint detailed maps, sew period clothing, or design authentic models of historical homes. They draw, paint, sculpt, weave, collage, batik, and tie-dye. In every topic of our study, we look for ways to incorporate the arts and enhance children's understanding and expression.

Compliments and Concerns

Compliments and Concerns in the fourth grade continues a long practice of using group process to help children solve problems. We guide the children to voice their concerns in a direct way and then work together as a class to find solutions to difficult problems. We end each session with Compliments, in which the children praise each other for kindness and generosity they experienced throughout the day.

Field Trips and Culminating Events

In the past, field trips have included: Morristown National Historical Park, the Meadowlands Environmental Center, the Hackensack Eco-Cruise, the New Jersey Historical Society, MoMA, the National Museum of the American Indian, Suydam Farm, Sandy Hook, and Independence National Historical Park in Philadelphia.

The Culminating Event of a study ranges broadly based on the topic. A class-written play might be performed to celebrate a study of the American Revolution. A Water Carnival might end our exploration of Water Pollution. In every case, we open our classroom to the school community and rejoice in the children's work. The children themselves become docents, and the classroom becomes an interactive museum of their making.

Spanish

First through Fourth

The Spanish curriculum is a communication-based program that seeks to engage students in meaningful communication. Following from their experience in the Early Childhood classrooms, in the first grade, students learn Spanish through songs, poetry, and crafts, combined with an introduction to the Symtalk method. Symtalk is a unique approach to teaching a foreign language and uses visuals specifically designed to accelerate the language learning process. It is based on the three key elements of short and long term memory: encoding, storage, and retrieval. Symtalk is a vertical comprehensive curriculum (for K to 8). Writing begins in second grade. The students structure full sentences starting from the first lesson. These are accomplished through:

- 1) Strings of magnetized cards placed on a board to demonstrate the vocabulary;
- 2) Books featuring the graphics used in class;
- 3) Game boards with various levels of difficulty.

There is also a cultural component that exposes students to beliefs and traditions from different cultures and offers them an opportunity to examine their own ideas. We have adopted the Day of the Dead as our traditional school wide Latin Holiday celebration. It is a holiday rich with tradition and folk art that provides opportunity to increase students' cultural awareness and instills in them a willingness to explore and enjoy a cross-cultural experience. Students also learn to appreciate diverse values and customs in order to better participate in an ever-changing global society.

Visual Arts

In all grades the visual arts program integrates an arts curriculum with the curriculum of the classroom teachers. In the art room we encourage creative problem solving and critical thinking skills through art making. The formal elements of design are explored at age-appropriate levels. Students acquire a range of techniques, including drawing, painting, sculpture, collage, printmaking, and construction, and explore with a wide variety of materials. This gives them an ability to select materials and techniques that convey the ideas and emotions in their work. Students work from observation, from memory, and from imagination

From prek through eighth grade, children work in the art studio. The art studio is set up to accommodate a variety of learning styles; students explore ideas both independently and in groups. Their ideas and abilities are strengthened by the constant support and communication of their peers and modeling by their teachers. Questions frequently discussed and answered in the art process are “Where do artists get their ideas?” or “What choices do artists make while going through the creative process?”

Grades 1 through 4

Grades 1 through 4 are assigned projects that are related to and supportive of the theme curriculum of the classroom teachers. The art projects broaden the student’s understanding of their theme studies. When students get a chance to use the knowledge acquired in their classroom in their creative process, their excitement about their theme studies serves as their inspiration in the art room.

Music

The music program at the Co-op concentrates on the child as singer, performer, critical listener, composer and conductor. By playing instruments, singing, moving to music and creating music, students explore music through its rhythm, pitch, dynamics, tone color and form.

First Grade

First graders learn to think musically by exploring the different building blocks of music. They experience singing alone and with others and learn to recognize basic rhythms and beats. They explore playing as an ensemble using percussion and Orff instruments and practice critical listening by illustrating tone color, textures and dynamics.

Second Grade

Second graders continue exploring their voice through singing alone and as an ensemble. They compose and notate more complex rhythms and learn to practice dynamics, tempo and pitch. In addition, students practice critical listening of recorded and student-composed music.

Third Grade

Third graders begin to learn vocal warm-ups and start engaging in proper breathing and body awareness needed for good vocal technique. They learn to compose simple pentatonic melodies and more complex rhythms. They practice exercises aimed at developing a further understanding of tempo, dynamics, melody and harmony as well as identifying meter.

Fourth Grade

Fourth graders explore a variety of vocal repertoire and continue expanding their awareness of body posture and vocal health. They perform individually and as an ensemble and practice reading, notating, listening to, analyzing, and describing music. They compose music aware of meter, dynamics, rhythms, melody and harmony.

Library

As in all of the Co-op classrooms, the library is a place where children have a chance to develop a love of reading and further their literacy skills. Children are exposed to all kinds of books – fantasy, animal facts, directions for craft projects, and historical fiction to name just a few. Choice plays a large role in library sessions as children are asked to help choose read-alouds, to design activities, choose research topics, and to make their own selections from the library collection.

First Grade

Weekly visits to the library often consist of a shared reading experience, such as a read-aloud story themed to a current classroom experience, holiday, season, or an idea that has grown from another book read together; and a related follow-up activity. Drawing and sequencing parts of a story, writing a book modeled on a read-aloud, mural-making, origami, creating games and puzzles, and dramatizing stories are all activities that first grade children do throughout the year. Children always have time to browse for books to check out to add to their classroom libraries or to take home.

Second and Third Grade

Like the younger children, second and third graders are engaged weekly in read-aloud stories and activities, but the books chosen for them may be longer and more complex chapter books, taking several sessions to finish. Corresponding follow-up activities are often planned by the children and might be worked on collaboratively over a period of weeks. Children in second and third grade learn how to search for books using our computerized card catalogue and how to locate the books on the library shelves. At different points in the year, they use computers and reference books to do research on their classroom themes or topics of their own choosing. Children use the library as a resource for books to read both at school during independent reading times and to take home.

Fourth Grade

Fourth graders visit the library weekly to choose books and do research both on the Internet and in appropriate reference materials. The librarian works closely with the fourth grade teacher to extend the children's knowledge of different genre.

Health

First Grade

First graders continue to learn about the body, how it works, and how to recognize signs of minor illnesses. They review how germs are spread and the importance of washing their hands. They are introduced to medications and their purposes. A dentist visits to speak about dental hygiene.

Second Grade

The second grade students are taught the body structures and functions of the primary/permanent teeth, cardiovascular, nervous and immune systems. Discussions about personal hygiene, healthy habits and dental hygiene take place. Students are instructed about the importance of breakfast and a balanced diet.

Third Grade

Students are taught disease prevention/control and learn the differences between viruses and bacteria. The significance of the immune system and how it helps fight infections are taught. Discussions centering on feelings, stress, responsibilities, friendships and self-esteem take place.

Fourth Grade

The health curriculum in fourth grade is interconnected with the grade's study. When the students are studying water, for example, they study the heart and blood. Emphasis is also placed on nutrition, exercise, and taking responsibility for their own health and hygiene.

The Physical Education Program from prekindergarten through eighth grade is described at the end of this guide.

The Upper School Fifth through Eighth Grades

The Upper School is made up of students from Grades 5 through 8. The Upper School years witness a steady growth in a student's ability to reason abstractly, accompanied by growing social and intellectual concerns. Distinct academic disciplines take on increased importance; the student's ability to understand the interconnections of human intellectual endeavor continues to grow as well. Beginning in the fifth grade, students are taught by specialists in their fields. Teachers work closely together to develop a broad thematic approach to curriculum. Students study language arts, math, and theme studies daily and science and Spanish either two, three or four times a week, depending on the grade. Students also have classes in computer, music, physical education, dance, and health. This past year, we expanded our art, music, technology, and physical education offerings in the Upper School by creating an elective program. Now, students can customize their technology studies by opting for robotics or photography. They can take drawing or fiber arts, or they can dance or hone their skills playing volleyball.

Language Arts

The language arts program strives to create a community of students who read and write with enjoyment and competency. The goal is for each child to make reading and writing part of her/his daily life. The developmental agendas and interests of each grade are carefully considered when designing curriculum. The teacher understands that learning to read and write are hard, messy processes, that children need to feel comfortable taking risks and making mistakes, that ample reading is the best predictor for successful writing, and that the complex skills used in reading and writing are introduced and re-taught throughout a child's academic life.

Each day children have a quiet time to read peacefully without distraction. During this time, with the teacher's guidance, children choose books that are appropriate to their reading level and that appeal to their interests. Sixth graders, for example, are adept readers; many read as well as adults but some begin to think that reading isn't as exciting as other activities. The challenge for this age group is to keep the avid readers stimulated with new books and authors and to entice the reluctant readers with book conversations and literature that speak to the developmental agenda of pre-adolescents. For seventh and eighth graders, the challenge is to connect children to literature that stretches their thinking about the world and that offers them new perspectives. As they explore their own identities, they look for characters in their reading to identify with. Reading, at this age, can be informative and very personal. Writing workshops encompass all aspects of the writing process including multiple drafts for revising and editing, holding conferences with teachers and fellow students, and publishing work. Language skills including spelling, vocabulary, grammar, and usage, are not taught in isolation. They are presented as one step in the writing process. Children write in multiple genres including formal essays, memoir, poetry, stories, book reviews, parodies, summaries, and observations.

Fifth Grade

Literal understanding of text is a major goal for fifth grade readers. During group reading, students answer plot questions, note and discuss new vocabulary, and sequence the events of a chapter. To help fifth graders understand the elements of story, they are introduced to the terminology and taught definitions (plot, character, and setting) when reading a fictional piece together. Students become familiar with conflict, antagonist, protagonist, theme, and mood. Fifth graders learn to write well-constructed paragraphs to summarize a fictional chapter. The ability to summarize is further honed by asking students to tell what is

happening in a piece the teacher or student reads. To help children continue to improve their decoding skills, fifth graders are frequently asked to read aloud. Children read novels at home and keep reading journals, which include summaries and their responses. They practice writing letters, stories, poems, and the steps to take when writing formal descriptive paragraphs. Fifth graders learn spelling rules through lessons and dictations and work to edit their writing.

Sixth Grade

Sixth graders read novels, short stories, poems and plays independently and in literary groups. In class, we discuss literary elements such as plot, and demonstrate how to highlight important information, how to take notes, and how to mark passages that are confusing and need class input. Sixth graders' literary vocabulary is expanded with new elements, for example, climax. These terms are studied through the literary pieces children analyze in class discussions and in their expository papers. Sixth graders continue to refine their writing skills in composing poems, letters, and spontaneous responses to prompts and pictures. Summarizing skills are practiced as students construct one-page summaries on a particular work that they condense into a paragraph, and, then, a sentence. Independent reading journals have a "synopsis" section for each chapter of a novel that the child reads. Students analyze the literary elements of works by writing on such topics as plot, conflict and theme. Higher order thinking skills are reinforced in class discussions and writing assignments when the children are asked to predict, empathize, and analyze. Students' ideas become more and more sophisticated as they consider cause and effect and bias and propaganda. Children learn to recognize and make metaphors and analogies. Writing to address a specific question always takes soul-searching and thought and increases the ability to think in the abstract. The students are exposed to spelling rules and strategies through spelling lessons and dictations and practice the rules to make their writing mechanically accurate.

Seventh Grade

One of the challenges in seventh grade is to ensure that students retain their passion for reading and writing. To this end, great care is given in choosing reading and writing assignments that relate to the adolescent agenda so that the students are immersed in the texts and enthusiastic in pursuing the craft of writing. They read from many different genres, both independently and together in shared reading. Writing skills are enhanced through the composition of poems, letters, book reviews, and summaries and analyses of text. Writing personal responses to literature helps students develop their analytical skills. Seventh graders continue to work on short, one-paragraph essays and learn to craft strong, concise five-paragraph essays. Writing mechanics are strengthened through revision of individual work and through mini-lessons on writing techniques.

Eighth Grade

Eighth grade students continue to be challenged by both independent reading selections and shared readings of novels, non-fiction books, poetry, and short stories. In depth discussions and written assignments enable the students to delve deeper into the texts and hone their analytical skills. Eighth grade students continue to write in a variety of genres, among which are parodies, spontaneous responses, letters, creating a first person narrative and poetry, including haiku, sonnets, and free verse. They write short one-paragraph essays, five-paragraph essays, and reviews. By now, students have internalized the structures of the pieces they write and can focus on crafting the piece, thus increasing its color and depth. Writing mechanics continue to be addressed by personal revision and group lessons.

Mathematics

Overview for Grades Five and Six

The math program becomes increasingly representational and abstract as students progress through the upper school. Children at this age are more capable of understanding and memorizing procedures and internalizing rules, so there is a greater emphasis on algorithms. Complexity in problem-solving increases, along with the skills students need in order to solve the problems. We introduce more traditional problem-solving techniques. We also develop projects that require collaborative learning and utilize a practical application in the real world. Individual, small group, and whole group activities include tactile, auditory, and visual instruction. Increasing emphasis is placed on using the formal mathematical language to describe the world in numerical terms. "Mathland – Journey through Mathematics" provides the scope and sequence for the curriculum.

Fifth Grade

Fifth grade math becomes more representational as students' thinking becomes more complex and detailed. Fifth graders are enthusiastic problem solvers and benefit from working with a partner. Although they need to use manipulative materials less, these materials are still helpful for students to visualize new concepts, such as volume, or providing a deeper sense of meaning for a concept like fraction equivalence.

Fifth grade students work with factors, multiples, and prime numbers. They become confident using multi-digit multiplication and division. They learn decimal place value and operations with decimals. Fifth graders develop their understanding of millions by examining patterns in the relationships of the powers of ten and learn to read, write, and round numbers up to trillions. Students explore fractional equivalents as well as adding and subtraction of fractions. Fifth graders learn to express distance, liquid, and weight in metric and English measurement. Students use formulas to calculate perimeter and area. Through building rectangular solids with rainbow cubes and drawing sketches of each solid, they discover the formula for finding the volume of rectangular solids. In an exploration of angles and triangles, fifth graders use fraction pieces to create their own protractors; this helps them to understand the relationship between degrees in a circle and fractional parts of a circle. Students measure the angles of a variety of polygons with the protractors they created, look for relationships, and learn to classify angles by measure. In studying statistics and probability, fifth graders create a survey question for polling their classmates and present the results in a Venn diagram. They demonstrate the differences in presentation of data in bar and line graph formations. Students practice computing averages. They use sampling to make predictions and explore probability through games.

Throughout the fifth grade curriculum, students solve problems using logic by themselves or with a partner or in whole groups. During classroom problem solving, emphasis is placed on recording and sharing children's different strategies rather than focusing on one correct answer. Children use calculators to facilitate more sophisticated thinking.

Sixth Grade

Sixth graders use abstract thinking with greater ease and regularity. They feel empowered as they integrate the skills they've learned and solve more complex problems.

Sixth graders begin the year with a group project of constructing a two-dimensional model of an "average" sixth grader and gain understanding of mean, mode, median, and range of a set of data. In an individual project, each student creates a survey question concerning sixth grade opinions, polls the class, and displays the data in a circle graph. Sixth graders are comfortable using a variety of patterns. They explore percent, integers, and prime numbers through patterns and make generalizations based on the patterns. When finding percent, children first study patterns and invent rules for solving problems mentally. Sixth graders learn the operations of fractions and mixed numbers. They explore the interchangeable relationship of fractions, decimals, and percents. In a culminating project, students design brochures to advertise a sale in their stores. Other students "shop" in the store and calculate the cost of discounted items purchased. Children use pre-algebraic concepts to make up and solve various puzzles. Sixth graders practice order of operations in solving equations and learn basic algebraic patterns. Students explore exponents, multiples, factoring, and composite numbers. They name and classify two-dimensional and three-dimensional shapes and practice finding perimeter, area and volume. Sixth graders use visual strategies to invent formulas for finding the area of triangles, parallelograms, and trapezoids and use formulas to compute circumference and area of circles. With emphasis on generalizations, logical thinking is required through the sixth grade.

Overview for Grades Seven and Eight

Seventh and eighth graders at the Montclair Cooperative School use the Connected Math curriculum. This curriculum has a problem-centered approach and every topic is explored from a variety of connected perspectives: graphs, tables, formulas, diagrams, models, and words. Students are actively engaged in doing the mathematics, not just listening to a teacher do it for them. Each student puts forth ideas and efforts and contributes to the classroom dialogue. The emphasis is on creating meaning and making sense of mathematics, while children learn the fundamental skills needed to solve problems.

Seventh Grade

Seventh grade begins with an introduction to some of the basic ideas and language of algebra. Students work together to collect, organize and represent data on graphs and in tables. They identify patterns in data and use these patterns to make predictions. Seventh graders begin to identify special patterns, such as linear relationships, and learn to express these patterns using the symbols of algebra. This leads students to learn to use graphing calculators to explore mathematics. Next, seventh graders study similarity and through project work begin to build a good working definition of similarity making connections between geometry and algebra. Students analyze scale factors and apply the results to solve two-dimensional real world problems. They discover for similar figures the relationship between scale factor and area. Continuing to build on what they learned in sixth grade, seventh graders learn to make intelligent comparisons of quantitative information using ratios, fractions, decimals, unit rates and percents. They examine the inverse relationships between addition and subtraction and between multiplication and division to help them generalize the rules for these operations. They look at familiar number patterns, and extend them to operations with integers. Students

explore the surface areas and volumes of rectangular prisms and cylinders in depth and discover the effect of changing the scale of a box. They also investigate cones, spheres, and irregular shapes to develop volume relationships.

Eighth Grade

We begin the eighth grade with a study of linear functions. Embedded in this are many important mathematical ideas, such as the concept of a variable, rate of change, communicating mathematical ideas, making predictions, and understanding how numbers describe the real world. As students make connections among the different representations of linear functions, they increase their fluency in the symbolic language of mathematics – the language of algebra and beyond. They continue using a graphing calculator as an aid to mathematics discovery. Eighth graders study the Pythagorean Theorem (geometry-algebra connections and working with irrational numbers), quadratic functions (including factoring and key features of parabolas), exponential functions (growth and decay), and advanced concepts of symmetry and transformational geometry (formal notions related to reflections, rotations, translations, and their interactions). Eighth grade students each engage in a significant mathematics research project. These projects are shared in class and then presented to the class and invited guests at the Math Fair.

Science

Overview of the Upper School Science Program

The science curriculum in the upper school builds on children's deep interests and their growing ability to understand scientific concepts and method and delves into the scientific disciplines that middle-school students across New Jersey are studying: Earth Science, Life Science, and Physics. Through laboratory work, various hands-on activities, long-term projects, and occasional field trips, students examine the foundational concepts of these fields.

We want to tap into the natural curiosity of children, the curiosity that scientists haven't lost and that makes them who they are, the childhood wonder of what things are and how they work. The hope is that each child will want to be a scientist—at least on an entry level. In the course of tapping into that wonder, the students will be exposed to the various disciplines through experiments that bring the “Wow” into the classroom, experiments that cause the students to gasp in awe as a completely unexpected result is produced.

But there is also the “How” of science, and the skills presented are the basic skills needed in a science classroom: problem-solving, decision-making, inquiry skills, reflected by formulating usable hypotheses, planning experiments, conducting systematic observations, interpreting and analyzing data, drawing conclusions, and communicating results.

And there it is, middle-school science in a nutshell. Put the “How” and the “Wow” together, and an exciting, challenging, academic science program exists that encourages children to keep asking “Why?” about the world around them.

Fifth Grade

Fifth graders begin their year by exploring Montclair through the town's flora and fauna in various habitats. As part of their studies, each student prepares a local field guide with entries for local flora and fauna. They then study life science as they classify living things and learn about the cell structures and processes of plants and animals. As an extension of their studies, each student chooses one plant or animal structure and explains how it works and its importance to the organism. Their study of chemistry encompasses properties of matter, solutions vs. mixtures, and chemical vs. physical change. As a project, each student will demonstrate an example of one concept studied using props. Fifth graders complete the year with a study of simple machines, and their final project is to build a working simple machine.

Sixth Grade

The sixth grade study of earth science begins with **geology** as they study the rock cycle and plate tectonics. They move on to mineral testing, soil formation, and volcanoes. For a project, each student chooses one geological concept or structure and on a poster explains how it works. Their study of **oceanography** covers the composition of the oceans, life forms, topography, currents, and resources. Each student creates a 3-D model of some concept from oceanography. In **meteorology**, the students learn about the water cycle and precipitation, forecasting, and the difference between weather and climate. Students build working backyard weather stations and take readings from their homes for one week. The year ends with **astronomy** as the students learn about the sun and our solar system, including the moon and the planets as well as other objects such as asteroids and comets. For a final project, each student writes a report about one concept from the unit.

Seventh Grade

The study of life science begins with atomic structure and a study of chemical bonds and reactions. In project-based work, each student demonstrates the formation of a chemical bond or creates a chemical reaction using props and explains what is happening on the molecular level. Their study of botany and biology covers chemical reactions in living organisms, such as photosynthesis and respiration, asexual/sexual reproduction in plants and animals, cell division and genetics, and life cycles. For a project, each student writes a report on a plant or animal of choice and explains its life cycle in detail. In their study of the human body, students learn about the organization of an organism: cells form tissues, which form organs, which form organ systems. Health and nutrition are also discussed, and for a project, each student creates a menu that will feed his or her family three balanced meals a day for three days. The year finishes with a study of ecosystems, with special emphasis on the ecosystems in New Jersey. The unit covers food webs and the interconnection among producers, consumers, and decomposers; the non-living components in an ecosystem; and finding the balance of human impact. As a final project, each student makes a poster of the chosen ecosystem, focusing on the food web that exists there.

Eighth Grade

The study of physics begins with electricity and magnetism. Concepts covered are the flow of electrons, conductors and insulators, circuits, AC and DC current, electromagnets, magnetic poles, and compasses. As a project, each student chooses one concept from this unit and explains that concept in a research paper. In the unit on

waves, electromagnetic and mechanical waves are studied, with special emphasis on light and sound. Each student creates a poster explaining a particular wave or some aspect of wave behavior. A study of motion and force follows: Newton's Laws, volume, density, weight, mass friction, and centripetal/centrifugal forces. Each student demonstrates one concept of movement or force using props. The final study of the year is energy, heat, and heat transfer. The final project, demonstrating one concept from this unit, is presented to the school community in an Energy Science Fair.

Theme

Overall Curriculum Goals

Know the world: past and present

Appreciate the diversity of cultures, religions and regions

Learn the issues confronting the world: its people and the environment

Raise awareness of global interdependence and responsibility:

“Everything is connected”

Cultivate spirit of service and activism

Learn from the past

Develop understanding, empathy and tolerance

*The theme curriculum for the **fifth and sixth grades** centers around different places and different times, leading to the exploration of the cultural roots of our society. We study the Ancient World as reflected in the mythology, arts, and other expressions of a society's culture. In the comparative study of the Medieval World - primarily in Japan and England - we study social organizations, major religions, culture and the arts. Projects, playwriting and dramatic productions, role playing, trips, festive celebrations, fairs and productions to celebrate the study are integral to each theme.*

Theme study merges the disciplines of history, geography, and cultural anthropology, broadly defined as “Social Studies”. Students in both grades attend the same field trips, because certain trip-related themes are integrally connected to these trips. All students are also involved in year-end fairs and productions. Differences in the specific material and levels of learning between the two grades enhance the curriculum, and students often present their varied projects across the grades to each other, becoming, in effect, the “teachers”.

*Curriculum in the **seventh and eighth grades** addresses adolescents' struggle with issues of independence, justice, trust, freedom, and responsibility. The curriculum supports and challenges students in their efforts to define their own identity and then to define their relationship to society as a whole as well as to the environment that envelopes and sustains us all. This is also a time in students' lives when they begin “thinking about their thinking in order to become aware of their own moral development.” They begin to develop “a vocabulary of decision making and [sense of] justice”, which extend their reasoning. In addition to helping students move from thought to judgment to participation, as they confront the moral questions of bigotry, racism, and violence, we offer the “hope of the countering forces of intellectual honesty, integrity, justice and empathy.” These quotations from Facing History and Ourselves reflect both the philosophy and mission for our seventh and eighth grade students.*

The Theme Curriculum encourages students to make comparisons across cultures; it challenges them to examine their own societies and to reflect on their own lives. We

familiarize our students with the world through critical examination of current events, through the connection to geography as more than just location, and through the perspectives gained by an analytical study of history based on primary source readings, stimulating texts and fiction, newspapers, documentary and pertinent classic films, relevant and significant trips, guest speakers, extensive essay writing, and students' individual research projects. Our program extends beyond the classroom to connect the past to the present and the students themselves to the diverse, yet universal, human experience.

Because we are, by choice, a small school, we do not break down the Theme curricula by single grades but rather by a two-year rotation of alternating themes and trips.

Fifth and Sixth Grades

Year 1: Ancient Civilizations The Ancient Civilizations curriculum is based on a study of the mythology that drives these cultures and informs their structure, arts and government, and on an experiential study of archaeology. This curriculum seeks out both the similarities and differences among ancient civilizations around the world, as well as their lasting impact on our own civilization. Beginning with a series of archaeological experiences both in and out of the classroom, students learn the importance of studying the past and the methods used to do so. Science and Social Studies merge in this curriculum, as students practice skills such as observation, data gathering, formalizing inferences, and presenting finds in a "mini museum" of artifacts they have unearthed in a series of "digs".

In the study of the culture of Ancient Egypt, students learn the powerful impact the belief in the afterlife has on the daily life of these people and, among other projects, participate in an elaborate mummification ceremony and burial of a young Egyptian pharaoh. A complement to the Egyptian study is a Mayan unit, based on "The Voyage of the Mimi" - an archaeological voyage and examination of the Mayan culture through its artifacts and the Popul Vol - the story of creation and other myths driving this culture and its expression. The second semester begins with a study of the "cradle of civilization": the Tigris Euphrates valley with the ancient Sumerians, and travels to the Mediterranean region, namely Ancient Greece, followed by the Ancient Romans, as revealed again through archaeologists' excavations of artifacts and remains at Pompeii and Herculaneum. A key component of this curriculum is the awareness of the powerful influence of the Greeks and Romans on every aspect of our own Western culture, language, and thinking.

Mythology is an important key to understanding diverse cultures. An intensive study of Graeco-Roman gods and goddesses culminates in a creative playwriting unit in which students, having chosen and researched their specific god/godess, form small inter-grade playwriting groups and create and present plays revolving around the exploits of their god or goddess.

Year 2: The Medieval World The Medieval World curriculum is a comparative study of two feudal societies: England and Japan. Students learn the significance of mythology and religion in these and other medieval societies, as well as the major religions of the time. Students read Japanese creation myths and tales of samurai, ghosts, demons, etc., and eventually write their own short story (and, in some cases, "novels") set in feudal Japan. They learn about castles, the role of the samurai, and life and arts of the samurai warrior - designing a Zen garden, Ikebana (the ancient art of flower arranging),

Sumi brush painting, Japanese Calligraphy, and the elaborate and symbolic tea ceremony.

When comparing English medieval society, we first look at the historical periods and events that culminated in the establishment of the feudal system. Students learn about the development of castles and castle life and experience the life of a knight or lady, as well as a serf and monk, over the course of the year. Students may learn medieval court dances, make swords and their own medieval clothing, design their own coat of arms and design and build a large castle together.

To celebrate their study, students plan and organize a year-end outdoor medieval fair, featuring medieval crafts and games; sporting events such as catapulting, jousting, broadsword and sword fighting; they are knights, craftsmen, jugglers, wizards and fortune tellers.

Seventh and Eighth Grades

Year 1: The American Experience: Freedom and Justice in Multicultural America

Beginning with a brief overview of the beginnings of this nation with a visit to Jamestown, Virginia, where three major groups of “Americans” first came into direct contact, we study these three groups and their impact on each other in detail, from slavery to the Civil War; from the Trail of Tears to Wounded Knee; from the Industrial Revolution in the Northeast to the westward migration of the pioneers; from the early struggles of the abolitionists and suffragists, to the heroic Civil Rights movement; from the early immigrants at Ellis Island to today’s immigrant population, both legal and illegal. We examine the nature and origins of racism, the driving force of “Manifest Destiny” and the beauty and benefits of multiculturalism. Equal rights and civil rights are a major theme as we study the Constitution and the evolution of these rights as evidenced in the amendments. This curriculum is a study of our nation’s history mainly through the experiences of ordinary Americans. We strive to grasp and express the “American Spirit” and to understand our own responsibilities as citizens in a multicultural society. We also study the geography of the United States through various maps, as we follow our nation’s expansion across the continent****(see below).

Year 2: Global Issues This curriculum combines an in-depth study of today’s global issues, diverse cultures and regional geography. To understand significant events occurring today, students gain historical perspective through seminar discussions of past world events and their immediate and long-term consequences. We begin with a series of cultural awareness exercises, including the creation of personal cultural genograms, and a 3-day experience in Heifer International’s Global Village. We go on to examine major global issues such as Poverty (and all of its related issues) and Human and Civil Rights, including a study of the Holocaust in the context of a broader study of genocide and its root causes. We learn about the United Nations and the Universal Declaration of Human Rights as a direct consequence of the devastations and human rights violations during WWII. Our newly acquired awareness of global human and environmental challenges is tempered by exposure to and celebration of the autonomy and beauty of diverse cultures and physical environments. This curriculum strives to foster not only greater geographic and cultural awareness, tolerance and acceptance in our students, but also empathy and compassion, as well as the opportunity to consider and reflect upon their own ethics and moral values.

Throughout these curricula, students grow in their ability to participate in class discussion, to research independently and with care, to present their research findings to the class in meaningful and creative ways, and in their ability to interpret facts and apply them to arguments about causation in history. Students learn to do research and to defend their research; they learn to write historical, analytical essays, opinion/position papers, and summaries of events and assigned readings. And finally, they learn about our world in the context of the ****Five Themes of Geography: Location, Place (Human and Physical Characteristics), Human-Environment Interactions, Movement (of people, goods and ideas), Regions.

Spanish

Fifth through Eighth

The Spanish curriculum seeks to engage students in meaningful communication. Following from their experience in the early childhood and primary grade classrooms, upper school students continue use the Symtalk method. Symtalk is a unique approach to teaching a foreign language and uses visuals specifically designed to accelerate the language learning process. It is based on the three key elements of short and long term memory: encoding, storage, and retrieval. Symtalk is a vertical comprehensive curriculum (for K to 8). Building on the vocabulary and grammatical foundations of the previous years, students in the upper school continue to develop their reading, writing and conversational skills. More of the class is conducted in Spanish as proficiency increases.

There is also a cultural component that exposes students to different beliefs and offers them an opportunity to examine their own ideas. We have adopted the Day of the Dead as our traditional school-wide Latin Holiday celebration. It is a holiday rich with tradition and folk art that provides opportunity to increase students' cultural awareness and instills in them a willingness to explore and enjoy a cross-cultural experience. Students also learn to appreciate diverse values and customs in order to better participate in an ever-changing global society.

Technology

Fifth, Sixth, Seventh, and Eighth Grades

The Technology Department's Goal is to provide our 5th through 8th grade students with technology tools they can use throughout the rest of their lives. Our students are members of the @ generation. They have technology integrated into their lives in ways older generations have no comparison to. They use technology in more ways than ever before, and will most likely create new ways to use technology. This generation requires education that accurately considers the impact technology is having on our world today.

Our choices of computer-related activities help our children to understand the technology around them. With the skills they learn, they will have a greater understanding into the ways they are given information in the every-day real world. Beginning with the most basic technology functions, such as typing, and building to more advanced concepts, such as web site construction, our students will leave the Co-op with a wide breadth of technological knowledge that will assist them throughout their learning journey.

The Technology Lab features iMac Computers, laser and inkjet printers, scanners, digital video and digital still cameras, as well as advanced software systems and networking such as a Gigabit Ethernet Lan. The Co-op has recently made significant investments

that have positioned our lab and school technological infrastructure with the latest in equipment. The school features a high speed enterprise class wired network as well as high speed encrypted wireless access throughout the entire building and the school grounds. Our teachers receive Apple iBook computers and regular software instructions and are the engine through which the technology program functions

Health Curriculum

Instruction in health classes is both theoretical and personal.

Fifth Grade

The health curriculum in fifth grade introduces the reproductive system. Students are taught the changes that occur during puberty and the need for personal hygiene. Peer relationships are discussed as well as peer pressure. Substance abuse is taught along with refusal skills. The need for proper nutrition is explained, especially as it relates to adolescent growth and development.

Sixth Grade

We emphasize healthy living in the sixth grade. The importance of physical activity and nutritious food choices is stressed. The students are taught that the goal of healthy living is a well functioning cardiovascular system. We review drug abuse and reproduction, expanding on the discussions introduced in 5th grade.

Seventh and Eighth Grades

The health curriculum for this age focuses on the reproductive system. Sexually transmitted infections are discussed along with their long term implications and side effects. The risk factors and treatment of HIV and AIDS are taught. Self-esteem, friendships, stress, increasing responsibilities and short-term and long-term goals are discussed. Drug and alcohol abuse, especially as they relate to teenagers, are taught.

Library

As in all of the Co-op classrooms, for grades 5-8 the library is a place where children have a chance to enhance their love of reading, further their literacy skills, and refine their research skills.

Fifth through Eighth Grade

All of the older children have access to the library collection. They work with their language arts teachers and the librarian to identify books for independent reading choices. They also spend time in the library learning and using research and organization skills

Upper School Electives

Children need choice. They also develop special interests as they grow older. Our electives program gives students the opportunity to pursue their interests in depth.

In the upper school one hour each day is designated for elective courses in art, music, physical education, or technology. Each elective course is taught weekly for one trimester (12 weeks), so students may have up to 5 electives a week. Each class may have students from grades 5 through 8. Electives are taught by Co-op teachers or by outside teachers hired for their expertise.

Electives classes allow students to explore further in a subject they love or to try something entirely new. Students develop friendships with others outside their grade group as they explore a common interest. They are allowed to work in small groups with an adult that is passionate about and knowledgeable in the subject.

Electives will change during the year and from year to year. Current elective offerings are: Moviemaking with Clay, Dyeing and Design, Drawing, Photography, Machine Sewing, Knitting, Dance, Volleyball, Soccer, Fitness, Robotics, and Choir.

Visual and Performing Arts

Music Overview

The music program at the Co-op concentrates on the child as singer, performer, critical listener, composer and conductor. By playing instruments, singing, moving to music and creating music, students explore music through its rhythm, pitch, dynamics, tone color and form.

Fifth and Sixth Grade

Students continue to develop their knowledge of vocal technique and expand their rich repertoire. Through exploring and arranging their own pieces, students experience tempo, meter, dynamics, complex rhythms, melody and harmony. They perform solo and as an ensemble, listen to, analyze, describe and evaluate music and musical performance.

Seventh and Eighth Grade

Students undertake studies on music theory, world music and Jazz. Through exploring instruments, looking through the eyes of a composer, and continuing their study of voice, students experience an enriching musical experience.

Visual Arts Overview

In all grades the visual arts program integrates an arts curriculum with the curriculum of the classroom teachers. In the art room we encourage creative problem solving and critical thinking skills through art making. The formal elements of design are explored at an age appropriate level. Students acquire a range of techniques, including drawing, painting, sculpture, collage, printmaking, and construction, and explore with a wide variety of materials. This gives them an ability to select materials and techniques which best convey their ideas and emotion in their work. Students work from observation, from memory, and from imagination

The art room is set up to accommodate a variety of learning styles, and students explore ideas both independently and in groups. Their ideas and abilities are strengthened by the constant support and communication of their peers. Questions frequently discussed and answered in the art process are "Where do artists get their ideas?" or "What choices do artists make while going through the creative process?"

Grades 5 and 6

Grades 5 and 6 are offered art electives, and are required to take 20 weeks of Required Art, which is a series of art projects directly supportive of their medieval or ancient cultures theme studies.

Grades 7 and 8

Grades 7 and 8 are offered art electives, and are required to take Media Studies for the entire year. The Media Studies Program looks at a range of media - from music videos to print advertising - and examines the techniques employed to make their artistic vision tell clear and motivating stories. In this world where art and commerce collide, there is an amazing array of ideas and execution to explore and enjoy. This study connects the older students to contemporary culture through visual literacy.

Physical Education

Grades Prekindergarten through Eighth Grade

Overview – *It is the goal of the physical education program to help students develop awareness of their physical abilities, to help develop positive inclinations toward regular physical activity, and to broaden their experience of physical activity to increase their enjoyment. The curriculum is designed to help children develop flexibility, strength, endurance, balance, creativity, and spiritual awareness through a variety of games and activities. Throughout the curriculum, cooperation and mutual support are expected and promoted. Throughout the year, the children will learn the different muscles in their body. The students will learn the difference between “exercising” and “stretching” and how to do each of these for all the muscles that they have learned.*

Each class starts with a warm up which might include jogging, aerobics, dancing, or agility drills. All students will also learn the concept of “pace,” and how to find their pace while jogging. We also practice our breathing technique. After the warm up, the class performs different plyometric exercises strengthening their legs and then stretch.

Pre-Kindergarten – First Grade

Classes at this age levels are structured around the development of controlled physical activity exercising gross motor development. Activities are designed to encourage individual goal setting for personal development of cardiovascular health, hand-eye coordination, isolation, balance and directional control. Games and activities involve a variety of materials including balls, hoops, cones (for obstacle courses), jump ropes, music, tumbling mats, and games where the students must follow directions.

Second, Third, and Fourth Grades

Continuing the emphasis on personal well-being, classes at this age level introduce a wider range of personal challenges designed to develop muscle tone, cardiovascular endurance, flexibility, balance and coordination and interaction. Components and fundamental skills associated with team sports are introduced and developed as personal goals and team play is introduced with emphasis on non-competitive enjoyment of the activity.

Games include varieties of tag emphasizing spatial awareness and consideration of others, cooperative endeavors such as pyramid building or sequencing activities depending on communication and cooperation, and more traditional games such as kickball, soccer, basketball, and baseball. Additionally, the fourth graders enjoys flag football and scooter games. Before playing these games, students will practice and develop the skills required to be successful. The students will also participate in agility drills, which help to increase balance, and foot speed, and fluidity in their movements.

Fifth, Sixth, Seventh, and Eighth Grades

Students at these age groups tend to be more interested in competitive sports and games, and so the curriculum turns to the goals of cooperative good, sportsmanship, and fair play and includes both competitive and non-competitive games. Before starting the competitive games, we hold a discussion in which we will talk about the benefits of healthy competition.

Traditional sports are played to encourage a general knowledge and awareness of the game. Before playing these games, students will practice and develop the skills required to be successful. The students will also participate in agility drills, which help to increase balance, and foot speed, and fluidity in their movements. In developing healthy attitudes toward competitive sports, students must be encouraged to be supportive of the efforts of everyone involved, to be inclusive of all participants, and to delight in the activity of the game without undue emphasis on winning or losing.